Abstracts of the 5th Research Forum of the European Association for Palliative Care (EAPC)

Trondheim, Norway, 28-31 May 2008

Scientific Committee
Augusto Caraceni, chair, I
Franco De Conno, I
Irene Higginson, UK
Stein Kaasa, N
Lukas Radbruch, D
Jane Seymour, UK
Per Sjøgren, DK
Florian Strasser, CH

Organising Committee
Stein Kaasa, chair, N
Finn Guttvik, N
Elin Steen, N
Gunn-Heidi Tobekk, N
Anne Kvikstad, N
Lars Øyvind Ofstad, N
Heidi Blumhuber, I
# Table of Contents

**Thursday 29 May**

<table>
<thead>
<tr>
<th>Session/Meeting/Communication</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 OPENING SESSION</td>
<td>399</td>
</tr>
<tr>
<td>2 PLENARY SESSION 1</td>
<td>400</td>
</tr>
<tr>
<td>3 ORAL COMMUNICATIONS: Family and Children</td>
<td>401</td>
</tr>
<tr>
<td>4 THEMED SESSION: Divide et impera: by joint forces and disciplines alleviate suffering from cachexia</td>
<td>402</td>
</tr>
<tr>
<td>5 ORAL COMMUNICATION: End of life care and quality of death</td>
<td>403</td>
</tr>
<tr>
<td>6 THEMED SESSION: Implementation of research into clinical practice: What makes sustained research work in daily practice?</td>
<td>404</td>
</tr>
<tr>
<td>7 ORAL COMMUNICATIONS: Medical sociology and Policy</td>
<td>405</td>
</tr>
<tr>
<td>8 ORAL COMMUNICATIONS Cachexia</td>
<td>406</td>
</tr>
<tr>
<td>9 THEMED SESSION: Systematic Reviews - what they can and what they can't do?</td>
<td>407</td>
</tr>
</tbody>
</table>

**Friday 30 May**

<table>
<thead>
<tr>
<th>Session/Meeting/Communication</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>14 PLENARY SESSION 2</td>
<td>411</td>
</tr>
<tr>
<td>15 ORAL COMMUNICATION Assessment and measurement tools</td>
<td>411</td>
</tr>
<tr>
<td>16 THEMED SESSION: Best Supportive Care versus chemotherapy? The right question to ask?</td>
<td>413</td>
</tr>
<tr>
<td>17 THEMED SESSION: The Trial of Trials in Palliative Care Research</td>
<td>414</td>
</tr>
<tr>
<td>18 THEMED SESSION: EPCRC, IASP and WHO: A step forward in Cancer Pain diagnosis and treatment?</td>
<td>415</td>
</tr>
<tr>
<td>19 ORAL COMMUNICATION: Education and Epidemiology</td>
<td>416</td>
</tr>
<tr>
<td>20 ORAL COMMUNICATION: Poster discussion session 1</td>
<td>417</td>
</tr>
<tr>
<td>21 ORAL COMMUNICATION: Other symptoms</td>
<td>418</td>
</tr>
<tr>
<td>22 ORAL COMMUNICATION: Subjective outcomes in palliative care research and their analysis</td>
<td>419</td>
</tr>
<tr>
<td>23 ORAL COMMUNICATION Ethics</td>
<td>420</td>
</tr>
<tr>
<td>24 ORAL COMMUNICATION: Pain 1</td>
<td>421</td>
</tr>
<tr>
<td>25 ORAL COMMUNICATION: Organisation of Care and Services</td>
<td>422</td>
</tr>
</tbody>
</table>

**Saturday 27 May**

<table>
<thead>
<tr>
<th>Session/Meeting/Communication</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>30 THEMED: How to improve research funding and capacity building in a world wide perspective</td>
<td>427</td>
</tr>
<tr>
<td>31 ORAL COMMUNICATION: Research methodology and Audit</td>
<td>428</td>
</tr>
</tbody>
</table>

---

**Poster presentations**

<table>
<thead>
<tr>
<th>Group</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>First group – 29 &amp; 30 May</td>
<td>443</td>
</tr>
<tr>
<td>Assessment &amp; measurement tools</td>
<td>444</td>
</tr>
<tr>
<td>Basic &amp; translational research 2</td>
<td>457</td>
</tr>
<tr>
<td>Cognitive symptoms and delirium</td>
<td>457</td>
</tr>
<tr>
<td>Dyspnoa &amp; breathlessness</td>
<td>458</td>
</tr>
<tr>
<td>End of life care &amp; quality of death</td>
<td>462</td>
</tr>
<tr>
<td>Epidemiology</td>
<td>474</td>
</tr>
<tr>
<td>HIV / AIDS</td>
<td>476</td>
</tr>
<tr>
<td>Pain</td>
<td>477</td>
</tr>
<tr>
<td>Palliative care in Children and Adolescents</td>
<td>490</td>
</tr>
<tr>
<td>Research into policy</td>
<td>492</td>
</tr>
<tr>
<td>Research into the organization of services</td>
<td>495</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Group</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Second group – 30 &amp; 31 May</td>
<td>502</td>
</tr>
<tr>
<td>Audit &amp; quality control</td>
<td>503</td>
</tr>
<tr>
<td>Bereavement</td>
<td>511</td>
</tr>
<tr>
<td>Ethics</td>
<td>513</td>
</tr>
<tr>
<td>Evaluation of education programmes</td>
<td>516</td>
</tr>
<tr>
<td>Family &amp; care givers</td>
<td>519</td>
</tr>
<tr>
<td>Fatigue &amp; cachexia</td>
<td>521</td>
</tr>
<tr>
<td>Neurological disorders</td>
<td>528</td>
</tr>
<tr>
<td>Other non-cancer</td>
<td>529</td>
</tr>
<tr>
<td>Other symptoms</td>
<td>531</td>
</tr>
<tr>
<td>Palliative care in elderly</td>
<td>542</td>
</tr>
<tr>
<td>Psychology &amp; communication</td>
<td>545</td>
</tr>
<tr>
<td>Research methodology</td>
<td>550</td>
</tr>
</tbody>
</table>
Palliative care (PC) focus on management of patients with progressive advanced disease. The primary focus is to maintain or to improve patients' quality of life and to support the care givers. To improve symptom and maintain function within a health care system that focus on cost effectiveness is one of the many goals, also for palliative care. As far as possible, intervention and organizations should be research-evidence based. Several barriers have been identified within PC research: At the patient level, in order to optimize symptom treatment, the lack of symptom assessment of pain and other symptoms is evident. At the health care provider level the lack of training in palliative care research can be a challenge, and in many environments, scepticism to research which include fragile, old patients. National evaluations in the UK and Canada in Palliative Care Research have pointed out that palliative care is basically based upon clinical experience, most studies are small and of descriptive nature. Small groups or single researcher initiatives make a long lasting, robust research strategy difficult and fragile. Research in PC is in its infancy. European Association for Palliative Care Research Network (EAPC RN) was established in 1996, and the Palliative Care Research society in the UK became a membership organization in 1998. For the time being, a very positive development is seen in many countries, with national funded collaboratives and projects in UK, Canada, Germany, Australia, as well as at the European level. The emerging collaboration, project and support for infrastructure is promising. However there are still some barriers to solve before PC Research has reached the number of sustainable groups of a substantial size, with permanent investigators and/or hospital funding and chairs within several of the academic fields of PC. The development of both quality and quantity of the contributions to the EAPC research forum is very promising, with a steady increase from 200 abstracts in 2000 in Berlin to 532 in Trondheim in 2008 at the time of writing. We need to collaborate internationally to share knowledge, perform international studies, and improve the understanding of the complexity of palliative care at the patient, family and health care organization level among others. National, international and regional research agenda are needed. Common research language including assessment and classification need to be agreed upon. Studies need to move from small descriptive studies to intervention studies. The EAPC RN sees the potential and the need for international collaboration. The Research Network will continue to organize the bi-annual conferences, Palliative Medicine will be further prioritized as the research journal of EAPC, and the Word-wide Palliative Care Alliance (WPCA) has launched a campaign with a political initiative in June 2007, the Budapest Commitments, common goals and a common language. Together with the International Association of Hospice and Palliative Care and the Word-wide Palliative Care Alliance, EAPC in close collaboration with the International Association for Hospice and Palliative Care (IAHPC) and the Worldwide Palliative Care Alliance (WPCA) has forster the collaboration between renowned research centers. They are large enough to reach critical mass, cross-fertilizing with other research areas and breeding new ideas with other researchers, and thus will lead to a steep increase in the quality and amount of palliative care research in Europe. The EAPC and its Research Network will use its communication structure and its congresses and research fora to offer a platform for communication for these research collaboratives. This should produce additional synergistic effects. Some topics are attended in several workgroups in parallel, and communication between the collaboratives may reduce redundancy. Already here in Trondheim two sessions have been dedicated to presentation of and exchange between the European collaboratives. We will continue to do so in future EAPC congresses. Next steps: the Budapest Commitments, common goals and a common language. The national associations have been asked to define clear goals within a common framework, and commit themselves to reach these goals in the next two years. The framework covers five domains: access to medication, policy, education, quality and research, allowing the national associations to focus on those domains they find most suitable in relation to the state of development of palliative care in their country. With this campaign synergistic energies will be raised, with additional motivation from the collaboration with other national associations and using other associations projects and methods as examples for one’s own project. The campaign will receive continuous support from an EAPC Task Force on National Associations, chaired by David Praill. First results from the Budapest Commitments will be presented at the EAPC Congress in Vienna in 2009. As a second important step, supporting and extending the Budapest Commitments and in response to the criticism on the lack of a common language in European palliative care EAPC will produce European norms on palliative care. EAPC has given a remit for a white paper on norms, providing guidance and recommendations for service providers, stakeholders and decision makers. EAPC will develop these norms in close collaboration with the national associations. Expectations.
In addition to the support that EAPC provides with these projects for the advocacy work of national palliative care associations and for health care professionals in palliative care EAPC needs to raise the support of the institutions of the European treaties, the Council of Europe, the European Commission and the European Parliament to secure the future of palliative care in Europe. The development of palliative care needs a strong and ongoing commitment from decision makers in the European institutions and other national or European stakeholders!

3 Invited Lecture

Plenary Session 1

Translational pain research – From molecular biology to the clinic
Authors: Frank Skorpen Head of Molecular Biology Section of Pain and Palliation Research Group, Faculty of Medicine, Norwegian University of Science and Technology NORWAY

The aim of this lecture is to give an overview of the current evidence for a relationship between polymorphisms in human genes and variability in opioid analgesia and side effects among patients treated for moderate or severe pain. Participants will learn how new knowledge from molecular biology and genetics can help us understand how the individual’s genotype affects the outcome of opioid treatment. They will also learn about challenges and opportunities for genetic research in palliative care, and what have to be overcome before “genetic profiling” can be used as a supplementary tool for decision-making in the treatment of severe pain. Control of pain and related symptoms is paramount to clinical success in caring for patients with advanced cancer and other terminal illnesses. Opioids are the mainstay of therapy for moderate to severe cancer pain at the end of life, with oral morphine being recommended by the World Health Organization and the European Association for Palliative Care as the conventional opioid of choice. However, in spite of expert recommendations, careful dose escalation and “optimization” of the management regime, successful opioid treatment is not attained in a substantial minority of patients. Unpleasant side effects are usually inevitable, and although side effects may be controllable, they can not easily be predicted. The integration of molecular genetic approaches into the study of complex health phenomena is an increasingly important and available strategy for researchers across the health science disciplines. In recent years, research investigating the relationship between the genetic variability among individuals and susceptibility to disease, clinical symptoms or treatment responses has grown exponentially. With an estimated number of at least ten millions, single nucleotide polymorphisms (SNPs) account for about 90% of all molecular differences in the human DNA sequence. Although many SNPs have no effect on cell function, others can have a major impact on how humans respond to disease, environmental exposures, drugs and other therapies, including sensitivity to opioid therapy. For example, polymorphisms in the µ-opioid receptor gene (OPRM1) are primary candidate sources of clinical variability in opioid therapy. Powerful analytical tools now make it possible to screen patients for their allelic status at very high resolution. However, for genetic information to be clinically useful, the genotype to phenotype correlations need to be based on properly measured and well defined end points. The lack of international standards for the assessment of subjective symptoms and classification of patients stands out as a major obstacle for the translation of genetic research into real opioid therapy improvements in palliative care.

4 Plenary presentation

Plenary Session 1

Paying to Die: The Economic Burden of Care Faced by Patients and Their Caregivers
Authors: Konrad Fassbender Department of Oncology, Health Services Centre University of Alberta, Grey Nuns Community Hospital CANADA Carolina Aguilar Department of Clinical Epidemiology & Biostatistics, McMaster University, Hamilton CANADA

Carleen Brenneis Regional Palliative Care Program, Capital Health Edmonton CANADA
Robin Fainsinger Department of Oncology, University of Alberta Edmonton CANADA

Background: Palliative care programs require participation of non-paid caregivers. The economic burden associated with this paradigm shift however is unknown. Methods: Prospective questionnaire measuring health care resource utilization by adult palliative care patients (prognosis between 2 and 24 weeks) between Feb 2004 and June 2007, in Canada. Primary caregivers were interviewed at baseline and every two weeks thereafter. Resource use, out-of-pocket expenses and time related losses were measured and valued according to established guidelines for economic evaluation. Results: A total of 301 caregiver-patient diads comprised 13.0% of the eligible palliative care population. Patients averaged 66.2 years of age, of which 55.1% were male. On average, patients were followed for 64.6 days at baseline (mean=34.3min) and interviewed a further 2.74 times (mean=8.8.min). Patients received care from an average 1.82 individuals (max=7) providing a total of 91.6hrs of care per week (or 64.9hrs/caregiver/week). Caregivers’ non-work activities were severely limited: 69.3% reduction in time spent performing domestic work, 46.3% personal care and 73.2% leisure. More than half of caregivers participated in the workforce: employed (35.0%) or temporarily absent from their work (19.5%). One in seven patients (14.3%) receives care from at least one caregiver experiencing work losses (mean = 17.3 hrs/wk/patient). Assuming an average wage rate of $23.90 (16.18 EUR), caregiver time related losses are estimated at $40,329 (27 302 EUR) per patient and exceed the direct medical and out-of-pocket costs. Discussion: Time related costs attributable to the care of each dying patient are equivalent to the annual wages of a caregiver and therefore impose a significant burden to families and employers. Inadequate financial support of dying patients and their families by governments will jeopardize both the health and economic benefits associated with the continued growth of palliative care programs.

5 Plenary presentation

Plenary Session 1

Use of advance directives in dementia: the patient’s perspective
Authors: Marike E. de Boer Department of Nursing Home Medicine Institute for Research in Extramural Medicine NETHERLANDS Cees Jonker Institute for Research in Extramural Medicine, VU University Medical Centre Amsterdam NETHERLANDS Rose-Marie Dröes Department of Psychiatry-Alzheimer Centre, VU University Medical Centre Amsterdam NETHERLANDS Cees M.P.M. Hertogh Institute for Research in Extramural Medicine, VU University Medical Centre Amsterdam NETHERLANDS Jan A. Eefsting Institute for Research in Extramural Medicine, VU University Medical Centre Amsterdam NETHERLANDS

Background: Advance directives enable people to manage their future by expressing their wishes with regard to (end-of-life) care. It is generally assumed that, if diagnosed in the early stages, people with dementia still have the necessary capacities to write an advance directive. However, it is never explored what people with (early) dementia think and expect of the future and what their views are on advance care planning. Methods: In depth interviews among elderly people with early stage Alzheimer’s disease (AD) (n=24) and additional interviews with partners/proxies (n=24) were carried out and analysed, following the principles of grounded theory. Results: Results show that most elderly people with (early) AD tend to live by the day and refrain from thinking about the future. Only a few mention that disclosure of the diagnosis and information on advance directives, causes them to start thinking about the future and advance care planning. Those that already had an advance directive prior to the diagnosis are often not aware of the existence of the document and its content, which makes it difficult to elicit their views. Conclusions: Our findings raise questions regarding the relevance given to advance directives by people with early AD. If advance directives are considered of importance for people with dementia to exercise their right to self-determination with regard to advance care planning their
existence and possibilities should be given more attention after disclosure of the diagnosis. Further research into adequate counselling of those willing to write an advance directive is recommended. Funding: The study was supported by a grant from the Dutch Ministry of Health, Welfare and Sports, the ‘Zonneheuvel’ Foundation and the ‘Vivium’ Care Association.

6 Oral Presentation

Family and Children
Specialist palliative home care for children and adolescents in North Rhine-Westphalia (Germany)
Authors: Saskia Jünger Klinik für Palliativmedizin Universitätsklinikum Aachen GERMANY
Tania Pastrana Klinik für Palliativmedizin, Universitätsklinikum Aachen Aachen GERMANY
Martina Pestinger Klinik für Palliativmedizin, Universitätsklinikum Aachen Aachen GERMANY
Frank Elsner Klinik für Palliativmedizin, Universitätsklinikum Aachen Aachen GERMANY
Monika Müller-Alpha Rheinland Bonn GERMANY
Lukas Radbruch Klinik für Palliativmedizin, Universitätsklinikum Aachen Aachen GERMANY

Background: A wide spectrum of conditions may render a child in need of paediatric palliative care. Therefore, different parts of the palliative care package may be delivered by a wide range of services and agencies across health, social and voluntary sectors. However, for many patients qualified service providers are not available. The Department of Health of North Rhine-Westphalia (NRW; Germany) in 2007 has initiated a pilot-project for the implementation of specialist paediatric palliative home care. The central aims are counselling and coordination of the available resources. For these purposes, two centres of excellence have been established with care teams acting as key-coordinators. Accompanying research is conducted with the objective of identifying best pathways of care. Methods: The first phase of data collection focuses on the status quo of service provision in NRW. The perceived quality of service provision is assessed by expert interviews and focus groups with relatives. Results: Key factors derived from interviews with experts are: barriers to the provision of home care by paediatricians, inadequate provision of specialist paediatric nursing services, and the socioeconomic strain on the families. The focus group and interviews with relatives revealed the need for more preventive information on rights and options, perceived (lack of) support by their health insurance, and the supply of respite care as crucial factors for successful service provision. The needs vary on a large degree according to the underlying disease, as paediatric palliative care is required for conditions from heterogeneous diagnoses. Conclusions: Well directed support for paediatricians, expertise and sensitisation of decision makers within health insurance companies, and the implementation of additional specialist paediatric nursing services are needed to facilitate access to specialist paediatric palliative care. The study is funded by the Department of Health of NRW.

7 Oral Presentation

Family and Children
Agreement between terminal cancer patients and their caregivers reported palliative outcomes: the role of caregiving burden
Authors: Gan Wei Palliative Care, Policy & Rehabilitation King’s College London UNITED KINGDOM
Irene Higginson Department of Palliative Care, Policy and Rehabilitation, King’s College London London UNITED KINGDOM

Background: Clinicians and researchers often have to rely on their caregivers to assess terminal cancer patients. This study aims to understand the role of caregiving burden in the agreement of patient-caregiver outcomes. Methods: A total of 69 terminal cancer patient and informal caregiver dyads were recruited from regional palliative care services and interviewed. Patients’ outcomes were assessed with both the patient and the caregiver version of the palliative outcome scales (POS); caregiving burden data were collected with the Zarit Burden Inventory (ZBI). The role of caregiving burden in the POS agreement were studied with main effect and interaction effect models of logistic regression controlling for potential confounders; adjusted odds ratios were estimated from the models. Results: The disagreement for four POS item ratings was significantly associated with higher caregiving burden: “feeling anxious” with higher total ZBI (OR: 5.91; 95%CI: 1.95 to 17.88) and higher role ZBI (OR: 3.32; 95%CI: 1.11 to 9.94); “share feeling” with higher personal ZBI (OR: 3.75; 95%CI: 1.10 to 12.76); “life worthwhile” with higher total ZBI (OR: 3.82; 95%CI: 1.31 to 11.16) and higher personal ZBI (OR: 5.61; 95%CI: 1.87 to 16.79); “feel good” with higher total ZBI (OR: 4.05; 95%CI: 1.32 to 12.46). There were interaction effects between caregiving burden and caregiver’s age and the relationship to the patient. Conclusions: Caregiver burden plays a certain role in their assessment. We may need to adjust for differences and disagreement when using caregiver assessment as a proxy for patient’s concerns.

8 Oral Presentation

Family and Children
Development of two instruments related to improving pediatric palliative care
Authors: Mildred Solomon Center for Applied Ethics Education Development Center U. STATES

Background: There are ethical and legal norms in the United States to guide decisions about the use of life-sustaining treatments in children, yet little is known about clinicians’ awareness of them. Similarly, there has been a widespread call for family-centered care within children’s hospitals, yet little consensus about what structures and processes are indicative of quality–family-centered care. This session presents two instruments developed by The Initiative for Pediatric Palliative Care, which aim respectively to document pediatric specialists’ knowledge of, and agreement with, existing guidelines and to help children’s hospitals assess the domains where they should focus their improvement efforts. Methods: A literature review, interviews with parents and clinicians, and an expert panel specified ethical and legal guidelines (used for development of Instrument #1) and agreement on key domains and indicators of optimal pediatric palliative care (used for Instrument #2). For Instrument #1, opinions, knowledge and belief questions were focused on: e.g., decision making, communication, pain management, legal fears, and truthtelling. Instrument #2 listed numerous indicators by domain and asked a key informant in each of ten pilot institutions to report whether the indicator was in place at their hospital. A scoring system was developed to show where the most progress could be made in future change efforts. Results: Instrument #1 was piloted with 71 subjects in 3 institutions. Responses were consistent 70 – 90% among 49 respondents who completed it twice. A single informant at each of 10 children’s hospitals piloted Instrument #2, which was effective in bringing hospital leaders’ attention to areas in need of improvement. Conclusions: These tools are useful for children’s hospitals interested in raising clinicians’ knowledge and attitudes and in targeting institutional change efforts. Their cross-cultural relevance is unknown and will be explored in the session.

9 Oral Presentation

Family and Children
Home care and communication: Parents’ perspective on their child’s death due to cancer, end-of-life decisions and impact on their future life
Authors: Boris Zernikow Vodafone Foundation Institute for Children’s Pain Children’s and Adolescents’ Hospital Datteln GERMANY
Christine Wansler Vodafone Foundation Institute for Children’s Pain Therapy and Paediatric Palliative Care Datteln GERMANY
Andrea Menke Vodafone Foundation Institute for Children's Pain Therapy and Paediatric Palliative Care Datteln GERMANY
Markus Blankenburg Vodafone Foundation Institute for Children's Pain Therapy and Paediatric Palliative Care Datteln GERMANY
Stefan J. Friedrichsdorf Pain and Palliative Care Program, Children's Hospital and Clinics of Minnesota Minneapolis U. STATES
Dörte Garske Vodafone Foundation Institute for Children's Pain Therapy and Paediatric Palliative Care Datteln GERMANY
Bettina Hübner Vodafone Foundation Institute for Children's Pain Therapy and Paediatric Palliative Care Datteln GERMANY
Joanne Wolfe Department of Pediatric Oncology, Dana Faber Cancer Institute and Children's Hospital, Boston, U. STATES
Karen Quinn Centre for Palliative Care Education & Research, St Vincent's & The University of Melbourne AUSTRALIA
Linda Kristjanson Curtin University of Technology Western Australia & The University of Melbourne AUSTRALIA
Andrea Menke Vodafone Foundation Institute for Children's Pain Therapy and Paediatric Palliative Care Datteln GERMANY
Tanja Hechler Vodafone Foundation Institute for Children's Pain Therapy and Paediatric Palliative Care Datteln GERMANY

10 Oral Presentation

Family and Children
Evaluation of a psycho-educational group program for family carers in home based palliative care
Authors: Peter Hudson Centre for Palliative Care Education & Research St Vincent's & The University of Melbourne AUSTRALIA
John Fisher Grampians Regional Palliative Care Victoria AUSTRALIA
Karen Quinn Centre for Palliative Care Education & Research, St Vincent's & The University of Melbourne Victoria AUSTRALIA
Linda Kristjanson Curtin University of Technology Western Australia AUSTRALIA
Maxine Braithwaite Caritas Christi Hospice, St Vincent’s Hospital Melbourne Victoria AUSTRALIA
Kristina Thomas Centre for Palliative Care Education & Research, St Vincent's & The University of Melbourne Victoria AUSTRALIA

Background: Family carers are often responsible for providing significant support to relatives who require palliative care at home. However, evidence suggests family carers have limited information, resources or evidence based support to prepare them for such a role. Furthermore, family caregiving can be associated with negative physical, financial and psychosocial outcomes. This project sought to examine the utility of a group family carer psycho-educational program focused on preparing primary family carers for the role of supporting a relative with advanced cancer at home. Methods: The education program (based on our published pilot work) consisted of three consecutive weekly sessions presented in a group format, conducted at six home based palliative care services in Australia. Participating carers were required to complete a set of self-report questionnaires measuring carer competence, preparedness, optimism, rewards, social support, burden and information needs, at three time points: commencement of the program (T1), upon completion (T2), two weeks later (T3). Carers were also asked to report on the relevance, accessibility, acceptability, and content of the program. Repeated measures ANOVAs were utilised for the analysis. Results: Twelve programs were conducted, with 74 carers attending the first session. Forty-four carers completed all three data collection sets. Following the intervention, a significant positive effect was found for the following outcomes: preparedness for the caring role, caregiving competence, caregiving rewards, and having information needs met from T1 to T2. These improvements were maintained at follow-up (T3). Feedback on the individual sessions and entire program was favorable. Conclusions: This study demonstrated that a group education program to prepare family carers for the role of supporting a dying relative at home was accessible, applicable and effective.

11 Oral Presentation

Family and Children
A meta-ethnographic study of informal caregivers’ perceptions of caring for a loved one or dependant with advanced cancer at home
Authors: Mandy Stratford Community Specialist Palliative Care Arthur Rank House UNITED KINGDOM
Jonathan Koffman King’s College London School of Medicine London UNITED KINGDOM

Background: Previous studies of caring for dependants or loved-ones with advanced cancer at home have been limited to cross-sectional descriptive studies. Although few qualitative studies have been conducted, they do provide a deeper insight into this experience. Aims: To conduct a meta-ethnographic review of qualitative studies that explored the informal caregivers’ perception of caring for a ‘loved one’ or dependant with advanced cancer at home. Methods: Review guided by method developed by Noblit and Hare. Inclusion criteria include studies published between Oct 99 and Oct 04. Synthesis of data involved a 7 step process which translated and synthesised key themes, concepts and metaphors from studies to create new theory. Results: Systematic literature review identified 12 possible studies for inclusion. Following application of quality assessment 5 studies were selected. The following key concepts were identified: (i) ‘Work of caring’ which included the provision of physical, psychological, social and spiritual aspects of care and its impact carers’ own well-being; (ii) ‘Relationships’ that existed between carer and dependant and how they changed; (iii) ‘Informal support’ the meaning of practical, emotional and social support caregivers; (iv) ‘Formal support’ the roles of services in assisting caregivers and the challenges of accessing appropriate and timely care; and (v) ‘Finding meaning’ caregivers perception of finding meaning in the role that included reciprocity, love and achievement. Conclusions: The emphasis of dying at home is now being promoted by statutory and voluntary sector organisations, but little attention is placed on the roles of informal caregiving that make this possible. The results of this meta-ethnography show that caregiving is multidimensional experience that exacts costs of those involved. Services should invest more in this underserved and under-research population group.

12 Invited Lecture

Divide et impera: by joint forces and disciplines alleviate suffering from cachexia
Assessment and classification of cachexia: any promise for innovative clinical trial design?
Authors: Vickie Baracos Department of Oncology, Division of Palliative Medicine Cross Cancer Institute, University of Alberta CANADA
We conducted population-based profiling of weight, weight loss history in a cohort (n=2500) of patients with advanced stages of cancer cancers of the respiratory and gastrointestinal tracts. Patients were newly referred to either medical oncology clinics in a regional cancer centre or a palliative home care service. A computerized database of all cancer cases in the province (Cancer Registry) was used to capture site, morphology, along with biological, clinical and demographic information. Computed tomography (CT) imaging has proven to be accurate for estimating human body composition and analyses of muscularity were conducted through secondary analysis of electronically stored CT images, which had been taken within 30 d of referral, for diagnostic purposes. Analysis of body mass index reveals an average BMI of above 26 kg/m² and a preponderance of overweight and obese patients, with only 5% presenting with a BMI <18.5 kg/m². The average BMI of patients within 3 months of death, was 24 kg/m². A history of weight loss was common, with an average loss of 8.6±8.9 kg. The population quartiles of 6 month weight loss were −19.3%, −10.6%, −4.5% and +2.4%. However, owing to the robust body weights, many patients remained obese or overweight in spite of considerable weight loss. These data appear to reflect the generally heavier body weights in Westernized countries. Overall 16% were obese at presentation and based on the weight history, 25% had been obese in the 6 months preceding the referral. In spite of sometimes considerable weight loss, the classic image of cachexia, emaciation, is relatively rare. Total appendicular skeletal muscle mass was estimated in a subset of patients (n=801), from muscle cross-sectional areas measured on single CT images at the 3rd lumbar vertebra. Muscle depletion (sarcopenia) was defined using cut off points and based on the weight history, 25% had been obese in the 6 months preceding the referral. In spite of sometimes considerable weight loss, the classic image of cachexia, emaciation, is relatively rare. Total appendicular skeletal muscle mass was estimated in a subset of patients (n=801), from muscle cross-sectional areas measured on single CT images at the 3rd lumbar vertebra. Muscle depletion (sarcopenia) was defined using cut off points equivalent to >2 SD below values for healthy adults (5.45 kg/m² for women and 7.26 kg/m² for men) as described by Baumgartner et al. (Am J Epidemiol. 1998;147(8):755–63). This analysis revealed an overall prevalence of sarcopenia of 49%, which ranged from 20% in obese patients, to 95% in patients with BMI 18.5 < kg/m². Sarcopenia was strongly associated with decreased median survival and this was evident even in the highest BMI strata; sarcopenic obese patients had a higher incidence of functional impairment (p=0.012) and shorter median survival (16.4 vs. 21.9 months; p=0.041) compared to non-sarcopenic obese patients. These observations suggest a need to reconceptualize cancer cachexia. Substantial depletion of the skeletal muscle is a widespread abnormality of body composition in patients with advanced solid tumors, which can be present in persons at any BMI and is strongly related to outcome. Anti-cachexia therapy should be targeted to specifically to muscle repletion. Valid approaches for the determination of muscularity are required to evaluate this feature in cancer patients and the secondary analysis of CT images is an accessible means of making this evaluation. Inclusion criteria and outcome measures in clinical cachexia research that are based on body weight or weight loss alone, will have limited utility in identifying patients at risk.

13 Invited Lecture

Divide et impera: by joint forces and disciplines alleviate suffering from cachexia

The (emerging) role of biological – genetic markers to predict the catabolic drive of cancer and anticancer drugs. EPCRC data and further developments

Authors: Kenneth Fearon The University of Edinburgh – Royal Infirmary Clinical and Surgical Sciences (Surgery) UNITED KINGDOM representing the EPCRC

Based on current knowledge of demographic and clinical factors, it is not possible to predict, for any given cohort of patients, who will develop cancer cachexia and who will not. It is also not possible to predict accurately who will develop cachexia quickly versus those who may develop the syndrome at a slower pace. Such variation may, in part, be due to the patient’s genotype rather than the tumour phenotype. The case to support a genetic predisposition to cachexia is strengthened from the known genetic contribution to the activity of a variety of key mechanisms that underlie the cachexia syndrome (e.g. systemic inflammation). Recent studies have linked several specific single nucleotide polymorphisms (SNPs) in pro-inflammatory cytokine genes to the presence of systemic inflammation and shortened survival in patients with advanced cancer. There is also preliminary evidence of a direct link between such SNPs and weight loss in cancer. So far, we have identified 130 polymorphisms of candidate genes that may contribute to the development of cancer cachexia. The challenge for future studies is to develop robust phenotyping of those either prone or resistant to cachexia and to explore the potential link with such candidate genes.

14 Invited Lecture

Divide et impera: by joint forces and disciplines alleviate suffering from cachexia

Palliative care specific issues in cachexia research and management: do we have guidelines to offer?

Presenting author of different from first author: Authors: Florian Strasser Oncology and Palliative Medicine Dept. Internal Medicine, Cantonal Hospital SWITZERLAND representing the EPCRC

Cachexia is defined as involuntary weight loss and several characteristics present in most, but not all patients, including muscle loss, decreased muscle strength, loss of appetite, early satiety, chemosensory changes, and catabolic drive (inflammation, tumor, other causes). Current consensus processes tackle definition, assessment, classification, clinical practice schemes, and standards for clinical trials designs and outcome measures. Guidelines developed without a focus on the palliative care population, patients with advancing, incurable illnesses and their family members, may not change and guide clinical practice and research. Typical aspects of palliative care – relevant for cachexia – include the a) multidimensional aspects of suffering, b) the unity of care involving families in care concepts, c) goal-, and suffering-directed (not disease-directed) diagnostic and therapeutic concepts, d) fluctuating trajectories of illness, e) limited life time implicating concurrent priorities until death and likelihood to reach “nutritional” goals, f) specific, symptoms and complications impacting nutrition, g) eating-related suffering of patients and family members, and h) delivery of care by multi-professional teams in various care settings. For clinical intervention (pharmacological, counseling, physical activity, etc.) trials, standards for multi-dimensional assessments and interventions for symptom control, priority-oriented goal decisions, nutritional counseling, physical activity, co-medications, and disease-modifying treatments need to be tailored to the palliative care context. Guidelines are expected to be developed in the same population as they are aimed for to guide practice and research, or at least having an expressed strategy of the adaptation process and validation, acknowledging cultural, language, education, and resource varieties. Availability of cachexia guidelines for palliative care is scarce, demanding coordinated activities.
larger study of 100 patients newly referred to a hospice community palliative care service in Central Scotland. A grounded theory and narrative approach was taken to analysis. Results: Key themes were physical (debility, dependence and expectations); psychological (understanding, uncertainty and vulnerability); social (communication and family) and spiritual (faith, reflection and hope). The unifying theme was control. Over the time from referral to death, patients’ perspectives evolved in a positive direction: Patients adapted and became reconciled to death. Despite this positive trend, all of the patients suffered transient negative episodes related to acute, unpredictable exacerbations of distress in any one of the physical, psychological, social or spiritual domains. The distress was induced by a sudden change in circumstances inconsistent with the established and familiar pattern of change. Conclusions: For patients with advanced cancer, perspectives on illness relate to physical, psychological, social and spiritual factors. The fundamental issue is control maintenance. Patients appear to become reconciled to death, facing it positively, despite experiencing periodic, unpredictable, acute exacerbations of distress. These episodes, which occurred throughout the final journey, reflected the transient loss of control associated with unexpec ted change. The process of adaptation continued once control was regained.

16 Oral Presentation
End of life care and quality of death
How effective is the control of and communication about agitation and distress in the last 48 hours of life?
Authors: Joanna Dunn Medicine St Christopher’s Hospice UNITED KINGDOM
Emma Hall St Christopher’s Hospice London UNITED KINGDOM
Jane McMann St Christopher’s Hospice London UNITED KINGDOM
Holly Young St Christopher’s Hospice London UNITED KINGDOM

Background: The prevalence of end of life sedation appears to be increasing. There is insufficient evidence about effectiveness of medication and communication with patients/families. Aims: Relate sedative dose titration and drug review to effectiveness of relief of agitation in the last 48 hours of life. Identify areas for improvement. Methods: Retrospective case-note review of last 48 hours of life of 100 consecutive hospice deaths. Results: 99 evaluable patients. Median age 73 years (range 33–93). 49 males. 90 had cancer. 69/99 (69%) patients were agitated at some time in the last 48 hours of life. 117/273 (43%) stat doses were recorded as effective. 46/115 (40%) stat doses of sedative at 48–24 hours pre death and 76/158 (48%) in the last 24 hours were given simultaneously with another drug, usually analgesia. The median number of stat doses per patient was 2 (range 1–10) at 48–24 hours and 2 (range 1–9) in the last 24 hours. 29/99 (29%) required 3 or more stat doses in the last 48 hours. 57/99 (58%) patients received continuous infusions of sedatives in the last 48 hours of life, of whom 22/57 (39%) had an increase or change in the last 24 hours and 11/57 (19%) required combinations of sedatives. Midazolam was the most frequently used drug for both continuous (median 20mg; range 5–100mg) and stat use (median 2.5mg; range 1.25–20mg), followed by levomepromazine (median continuous dose 25mg; range 6.25–250mg, median stat dose 12.5mg; range 6.25–50mg). 3 patients required phenobarbital. There were discussions about sedation with families in 30/68 (44%) cases. Conclusions: Agitation was common in the last 48 hours of life, sometimes intermittently. Documentation of communication and drug effectiveness could be improved. Doses were similar to previous studies. Issues for further investigation include co-administration of sedatives and analgesics, dose titration of stat and continuous doses and the use of sedative drugs in combination for more resistant agitation.

17 Oral Presentation
End of life care and quality of death
Palliative Care in Dutch Nursing Homes: Dying with Dignity?
Authors: Luc Deliens Dept. of Social Med. Vrije Universiteit Amsterdam-VUMC CANADA
Dr. H Brandt VU Free University Medical Center Amsterdam NETHERLANDS
Miel W Ribbe VU Free University Medical Center Amsterdam NETHERLANDS

Background: Nursing homes (NHs) are less well studied than hospices or hospitals regarding palliative care. For palliative care information is needed about the patients, symptoms, direct causes and underlying diseases, and incidence of terminal ill NH patients. Methods: Prospective observational cohort study in 16 NHs in the Netherlands. All long-term care patients assessed by an NH physician to have a life expectancy of 6 weeks or less were enrolled (n=516). The symptoms-and-signs list was constructed from the MDS-RAI2.0. The validated Dutch Classification of Diseases for Nursing Home Medicine (CvZ-V)’16 was used for registration of the direct cause of the terminal phase and the underlying disease. Results: The terminal disease phase was marked with symptoms of low fluid and food intake, general weakness, and respiratory problems or dyspnea. Patients were frequently in a state of somnolence and experienced recurrent fever. Direct causes of these conditions were diseases of the respiratory system and general disorders. The 2 main underlying diseases of the terminal phase were mental disorders (dementia) and circulatory diseases. For both groups, symptoms of (very) little/no fluid intake, generalized weakness, somnolence and cachexia/anorexia were common. For patients with mental disorders (mainly dementia) the beginning of the terminal phase was marked with problems of nutritional intake, and recurrent fever in the circulatory group, this beginning was mostly the presence of respiratory problems and/or dyspnea. Cancer was the underlying disease in only 12% of the patients, showing a different pattern of symptoms compared to residents without cancer. Conclusions: A wide variety of burdensome signs and symptoms are seen in the terminal phase of nursing home patients with fluid and food intake-problems, general weakness, and dyspnea, as the most important. For patients without cancer in Dutch NHs, the terminal disease phase is difficult to predict, and once diagnosed, patient survival time is short.

18 Oral Presentation
End of life care and quality of death
Care for patients in the last three months of life: findings from the nationwide SENTI-MELC study in Belgium
Authors: Lieve Van den Block End-of-Life Care Research Group Vrije Universiteit Brussel BELGIUM
Nathalie Bossuyt Wetenschappelijk Instituut Volksgezondheid Brussels BELGIUM
Viviane Van Casteren Wetenschappelijk Instituut Volksgezondheid Brussels BELGIUM
Katrien Drieskens Vrije Universiteit Brussel, End-of-Life Care Research Group Brussels BELGIUM
Sabien Bauwens Vrije Universiteit Brussel Brussels BELGIUM
Reginald Deschepper Vrije Universiteit Brussel, End-of-Life Care Research Group Brussels BELGIUM
Luc Deliens Vrije Universiteit Brussel, End-of-Life Care Research Group Brussels BELGIUM

Background: The WHO has identified palliative care as an issue of great clinical and public health importance. However, data describing end-of-life care on a societal or population-based level are lacking. This is the first nationwide study to measure end-of-life care in a representative sample of dying persons, in terms of involvement of caregivers, access to specialist palliative care, treatment goals, and physical-psychosocial-spiritual components of care. Methods: We performed a one-year nationwide mortality follow-back study in 2005, Belgium. Data were collected within the Sentinel Network Monitoring End-of-Life Care (SENTI-MELC) study. All 205 general practitioners within the Sentinel Network of GPs, an existing epidemiological surveillance system representative of all Belgian GPs, reported weekly on the final three months of life of every patient in their practice who died non-suddenly. Results: We studied 892 deaths. GPs, nurses/geriatric
19 Oral Presentation

End of life care and quality of death
Significant improvement in quality of life of patients with incurable cancer after designation to a palliative homecare team
Authors: Christina Melin-Johansson Department of Health Sciences Mittuniversitet/Mid Sweden University SWEDEN
Fannie Gaston-Johansson Johns Hopkins University Baltimore U. STATES
Bertil Axelsson Department of General Surgery Östersund SWEDEN
Ella Danielsson Institute of Health and Care Sciences Göteborg SWEDEN

Background: Palliative care teams provide palliation through different interventions and the main goal is to provide best possible quality of life (QOL) to patients and their families. The aim of this study was to describe and compare QOL before and after designation to a palliative homecare team in patients with different incurable cancer diagnoses and to identify pre-designation predictors of post-designation global QOL. Methods: Every eligible patient referred to the team were included and identified once a week. Patients who were aware of diagnosis and prognosis, aged 18 years or older, spoke the language of this particularly country, ability to complete questionnaires independently, cared for in their private homes were included. Patients’ QOL was measured one week before and two weeks after designation to the team with the Assessment of Quality of life at the End of Life. Descriptive statistics, Wilcoxon Signed Rank Test, Spearman’s Rank Order Correlation and logistic regression analysis was used. Results: Patients’ QOL improved in the physical, psychological, medical and global areas. Six items significantly improved: hours recumbent during the day (p=0.009), nausea (p=0.008), anxiety (p=0.007), getting hold of staff (p=0.006), received care (p=0.003) and global QOL (p=0.025). Depression/low in mood (r=0.55) and meaningfulness (r=0.70) associated to global QOL. Furthermore, pain (p=0.028) and meaningfulness (p=0.028) predicted global QOL. Conclusions: The present study showed that it is feasible to carry out a questionnaire-based study of QOL in end-stage cancer patients and still achieve relatively complete data. Our results that pain and meaningfulness were significant predictors of global QOL may serve as guidance for palliative homecare staff in the future when planning care for these patients. If patients are treated for and free of physical pain, they might be better able to focus on existential issues, such as meaningfulness in daily life. It is important to further explore how meaningfulness is associated to and predicts global QOL.

20 Oral Presentation

End of life care and quality of death
Are religious and spiritual needs being met in the last hours and days of life?
Authors: Catriona Mayland Palliative Medicine Marie Curie Palliative Care Institute UNITED KINGDOM
J Addington-Hall University of Southampton Southampton UNITED KINGDOM

The vast majority of the original palliative care programs had predominately a clinical mandate. Health care professionals had very limited protected time, and lack of academic affiliations. The leadership in community-based hospices, home care programs, and even the original hospice-based palliative care programs had limited interested in the development of a research infrastructure. In recent years there has been increased recognition of the importance of palliative care research by major academic institutions and universities. Palliative care specialists need to take advantage of these increasing opportunities. This presentation will address different ways to establish link with content and methodology experts in an effort to start research projects. Improved communication technology allows teams to operate very effectively from distant regions. Therefore, clinical programs in small communities or remote locations can become highly effective sources for clinical research. Whenever possible finding mentors will facilitate successful grant applications and activation of research studies. When this is not possible joining collaborative research groups is an effective way to learn how to design and conduct research. Small success resulting in presentations in local and national meetings and publications are high effective in convincing leadership and colleagues on the importance of developing a research culture. Ultimately research needs to be understood as an ethical mandate of all major palliative care programs rather than as an elective possibility. This presentation will use some practical examples to highlight ways to successfully build structure and culture.
23 Invited Lecture

Implementation of research into clinical practice: What makes sustained research work in daily practice?

Authors: Sebastiano Mercadante Pain Relief & Palliative Care, La Maddalena Cancer Center; University of Palermo ITALY

Palliative care, as a specialty, has found progress impeded by its limited capacity for conducting research and for translating research findings in practice. A sizeable evidence base that influences practice often comes from other population and may not be generalized to palliative care patients. The importance of expanding evidenced data for palliative care is well recognized. However, very advanced cancer patients often do not fit the minimal data set for inclusion criteria, because they are severely ill or unstable. Nevertheless, researchers in the field of palliative care must accept the challenge to generate high-quality research evidence to be used for clinical decision-making. On the other hand evidence alone is never sufficient to guide clinical decision making on the basis of available data. The credibility of the findings of research depends on the design chosen. The choice of patient population, design of the study, symptoms and interventions, as well as well defined end points are fundamental factors to take into consideration to achieve good results to be generalized with some good evidence.

24 Oral Presentation

Medical sociology and Policy Factors influencing clinical decision making in palliative care patients in the People's Republic of China

Authors: Simon Noble Palliative Medicine Cardiff University UNITED KINGDOM

Methods: Audiotaped semi-structured interviews with oncologists and geriatricians in rural (Sichuan) and urban (Chengdu) Chinese hospitals were conducted and transcribed. Transcripts were then translated into English and analysed in pairs with independent analysis of transcription validity. Further interviews were conducted and analysed until theoretical saturation was achieved. Results: Theoretical saturation was reached at 10 interviews but a further 6 were conducted to ensure a breadth of data from urban / rural settings and oncologists / geriatricians. The following major themes were identified: 1. Withdrawal of active treatment was considered countercultural to the PRC philosophy and contrary to governmental stated policy; 2. Death was considered a failure and treatments always offered, even if the patient had unresponsive disease. Withdrawal of futile therapies was considered countercultural to the PRC medical model; 3. The use of inotropes was considered acceptable and customary in the terminal patients and cardiopulmonary resuscitation of terminally ill patients was standard practice; 4. Diagnoses and complications occurred primarily between doctors and relatives. The patient would be involved in communications only with relatives’ permission; 5. Treatment would be offered so long as a family could afford to pay for it. Death was rarely discussed, and never with the patient; 6. Palliative care and customary in the terminal patients and cardiopulmonary resuscitation was standard practice; 4. Diagnoses and complications occurred primarily between doctors and relatives. The patient would be involved in communications only with relatives’ permission; 5. Treatment would be offered so long as a family could afford to pay for it. Death was rarely discussed, and never with the patient; 6. Palliative care was considered by some as “giving up” and by others as synonymous with euthanasia.

Conclusions: Clinical decision making is influenced by government edict, financial support and the cultural tradition of families being primarily involved in the communication of information and decision making. Although the western model of palliative care has much to offer in the PRC, cultural and societal factors make its development challenging particularly with respect to management of the terminal phases of the cancer journey.
25 Oral Presentation

Medical sociology and Policy

Transitions between care settings at the end of life: findings from the nationwide SENTI-MELC study in Belgium

Authors: Lieve Van den Block End-of-Life Care Research Group Vrije Universiteit Brussel BELGIUM
Nathalie Bossuyt Wetenschappelijk Instituut Volksgezondheid Brussels BELGIUM
Johan Bilsen Vrije Universiteit Brussel, End-of-Life Care Research Group Brussels BELGIUM
Katrien Drieskens Vrije Universiteit Brussel, End-of-Life Care Research Group Brussels BELGIUM
Sabien Bauwens Vrije Universiteit Brussel Brussels BELGIUM
Reginald Deschepper Vrije Universiteit Brussel, End-of-Life Care Research Group Brussels BELGIUM
Viviane Van Casteren Wetenschappelijk Instituut Volksgezondheid Brussels BELGIUM
Luc Delliens Vrije Universiteit Brussel, End-of-Life Care Research Group Brussels BELGIUM

Background: At the end of life, transitions between care settings can be burdensome for patients and their families. They also pose challenges to the continuity of care, jeopardizing patient safety and quality of care. Previous studies were limited to specific populations or settings, or investigated single transitions. No nationwide studies have examined transitions between end-of-life care settings for a population-based sample of dying persons. This study investigates the prevalence, types and timing of transitions between end-of-life care settings in Belgium. Methods: We performed a one-year nationwide mortality follow-back study in 2005. Data were collected within the Sentinel Network Monitoring End-of-Life Care (SENTI-MELC) study. All 205 general practitioners (GPs) within the Sentinel Network of GPs, an existing epidemiological surveillance system representative of all GPs in Belgium, reported weekly all patients in their practice who had died non-suddenly. They registered place of death and previous places of care for up to 3 months before death, as well as duration of stay in each setting. Results: We studied 892 patients. Sixty-two percent were transferred at least once in the final three months of life. More specifically, 73% of patients residing at home and 36% of care home patients were transferred. Forty-eight distinct care setting trajectories were identified. Of all transferred patients, 80% were transferred in the last month of life and 33% in the last week. The percentage of hospital admissions, in particular, increased closer to death. Conclusions: The high prevalence and great variation of transitions in Belgium, especially those to hospitals in the last weeks of life indicate that for many patients end-of-life care does not provide stable continuous care at home or in care homes. Institute for Promotion of Innovation by Science and Technology Flanders (SBO-IWT 050158).

26 Oral Presentation

Medical sociology and Policy

A review of donor organisations that support palliative care in five regions of the world

Authors: Michael Wright International Observatory on End of Life Care Lancaster University, Institute for Health Research UNITED KINGDOM
Thomas Lynch Lancaster University Lancaster UNITED KINGDOM
David Clark Lancaster University Lancaster UNITED KINGDOM

Background: Many palliative care developments around the world are dependent on third party funding, yet little is known about the number and type of palliative care donors, the regions where they operate or the priorities they address. Aim: To review donor organisations supporting hospice-palliative care activities in: Africa; Central and Eastern Europe and the Commonwealth of Independent States (CEE/CIS); Central, South and East Asia (CEE Asia); Latin America; and the Middle East. Methods: A mixed-method design involved: a scoping exercise and global survey of 701 ‘key informants’; a synthesis of evidence from electronic databases, published and grey literature, hospice newsletters and an EAPC task force. Donors were categorised using a 9-part typology. Results: 368 donor organisations were identified and categorised as: 1) ‘Multilateral’ (9, ≥2% eg World Bank); 2) Bilateral (32, 9% eg USAID); 3) ‘Humanitarian’ (124, 34% eg OSI); 4) ‘Faith-based’ (71, 19% eg Caritas); 5) ‘Business’ (53, 15% eg Castrol); 6) ‘Hospice Support’ (33, 9% eg Friends of Swaziland Hospice); 7) ‘Inter / National Association’ (22, 6% eg IAHPC); 8) Educational (14, 4% eg Zagreb University Medical Faculty); 9) ‘Other’ (10, 3% eg North Carolina National Guard). Most donors were found in CEE/CIS (169, 46%); then Africa (141, 38%); CEE Asia (77, 21%); Latin America (25, 7%); and the Middle East (19, 5%). Just 50 donors were found in India and China (which encompass 37% of the global population) and in China, only 5 (1%). Conclusions: Palliative care funding initiatives are taking place in disparate regions of the world although these are disproportionately and mostly concentrated in CEE/CIS and Africa. More understanding about the variety of donors and their areas of interest may facilitate a more strategic approach to palliative care development on the part of both donors and grant-seekers, especially in resource poor regions of the world. A global register of donors would be worthy of development.

27 Oral Presentation

Medical sociology and Policy

Feasibility of Dignity Therapy in Denmark: Experiences and Cultural Challenges

Authors: Lise Jul Houmann Dept. Palliative Medicine Bispebjerg Hospital DENMARK
Linda Kristjansson Research and Development, Curtin University of Technology Perth AUSTRALIA
Susan Rydahl-Hansen Dept Palliative Medicine, Bispebjerg Hospital Copenhagen DENMARK
Mogens Groenovold Dept Palliative Medicine, Bispebjerg Hospital/Institute of Public Health Copenhagen DENMARK
Harvey Chochinov Manitoba Palliative Care Research Unit, Dept. of Psychiatry, University of Manitoba Manitoba CANADA

Background: Dignity Therapy (DT) is a brief, psychotherapeutic intervention for palliative care patients developed by Chochinov et al. DT invites patients to reflect on important aspects of their life, relationships, and things they would want to be known or remembered. These recorded conversations serve as the basis for a personal document, which the patient can bequeath to family and friends. We have investigated the feasibility and effect of implementing DT in the Danish culture. Purpose: To describe early lessons and feasibility results of the Danish DT study. Methods: From September 2005, patients were recruited from a department of palliative medicine and a hospice. We did a status midway to estimate how Dignity Therapy was accepted and responded to in a Danish setting. Results: After 9½ months, 40 patients participated in Dignity Therapy. Their median age was 60 years (range 36–88 years), 18 were male, and their median survival time after DT was 73 days ranging from 1–440 days (2 patients still alive). Of these, 28 patients provided post evaluations (with the remainder having either deteriorated or dropped out of the study (1 pt.)). Some potentially culture specific issues arose in relation to the DT-interview guide. For example, some patients reported discomfort in naming aspects of their life or accomplishments they were proud of, and some struggled with the notion of ‘giving instructions’ to their relatives. Of those providing evaluations, all (100%) have been either satisfied or very satisfied with DT. 82% thought DT had helped them. 92% thought DT would help their family. 59% reported that it heightened their sense of dignity. Conclusions: To date, DT appears to be a feasible and positively received intervention for critically ill patients in Denmark. The study is funded by the Danish Cancer Society.
28 Oral Presentation

Medical sociology and Policy
Public opinion about advance directives in the Netherlands
Authors: Mette Rurup Department of Public and Occupational Health VU University Medical Centre NETHERLANDS
Lisaette Muis VU University Medical Centre Amsterdam NETHERLANDS
Roeline Pasman VU University Medical Centre Amsterdam NETHERLANDS
Bregie Onwuteaka-Philipsen VU University Medical Centre Amsterdam NETHERLANDS

Background: Objective: The aim of this study was to investigate public opinion about advance directives (ADs) in the Netherlands. Methods: A written, structured questionnaire was sent to the Consumers’ Panel for Health Services of the Netherlands Institute for Health Services Research (NIVEL). This panel (N=1621) consists of a random sample of the population of the Netherlands. A total of 1402 respondents (86%) completed the questionnaire. Setting: The Netherlands, October 2005. Outcome measures: Having an AD, familiarity with ADs, plans to formulate an AD, end-of-life care preferences. Results: 95% of the respondents did not have an AD. Of these respondents, 24% did not know about the possibility to formulate an AD. The written request for euthanasia and the do-not-resuscitate directive were best known ADs. Of the respondents who did not have an AD, 64% would probably formulate an AD in the future, and 22% would certainly do so. In three given theoretical situations (incurable cancer, three months coma, and serious dementia) the majority thought that they would (probably) ask for euthanasia or assisted suicide (72%, 63% and 61%, respectively). Conclusions: In the Netherlands, many people have clear end-of-life preferences, but very few have formulated an AD. Many are planning to do so, although public knowledge about ADs is poor in the Netherlands.

29 Oral Presentation

Medical sociology and Policy
A Patient-Centered Approach to Advance Care Planning (PC-ACP) in End Stage Heart and Renal Failure
Authors: Karen Kehl School of Nursing University of Wisconsin-Madison U. STATES
Karin Kirchhoff University of Wisconsin-Madison Madison, WI U. STATES
Bernard Hammes Gundersen Lutheran Foundation LaCrosse, WI U. STATES
Linda Briggs Gundersen Lutheran Foundation La Crosse, WIU. STATES

Background: Advance Directives (AD) have had limited success in improving care at the end of life in the United States. Past efforts have not been grounded in a clear understanding of patients’ preferences, values, and wishes, nor did they include or prepare surrogate health-care decision-makers. This study is designed to test the efficacy of PC-ACP on patient and surrogate outcomes, including agreement between the patient and surrogate concerning the patient’s care choices on four standard situations, immediately following the intervention. Methods: The Respecting Choices™ approach to advance care guideline, the theoretical and practical development of the intervention in this multi-site randomized trial. Adult patient/surrogate pairs (n=312) were recruited from two Midwestern U.S. areas. Patient/surrogate pairs recruited from clinics completed baseline questionnaire and were randomized to a control group, which received standard AD care (asked if they had an AD or would like assistance completing one), or an intervention group, which participated in an interview led by a trained facilitator including the surrogate. Results: Following the intervention the patient and surrogate have greater agreement than the control group concerning the patient’s care preferences (p=0.01) on each of four situations presented. The likelihood ratio for each situation ranged from 2.7:1 to 6.0:1. Patients and surrogates in the intervention group had greater knowledge of ACP than the control group. Patients had no increase in decisional conflict concerning the patient’s care preferences. Knowledge gained from this research will be useful in redesigning the U.S. federally mandated assessment of ADs into an improved process of ACP to better fit the spirit of the U.S. Patient Self Determination Act. Funding: Agency for Healthcare Research and Quality grant #SR01HS013374-04.

30 Oral Presentation

Cachexia
A Dose Titration Study of Thalidomide in Cancer Anorexia
Presenting author: Declan Walsh
Authors: Lesley Bicanovsky Palliative Medicine Cleveland Clinic U. STATES
Tony Jin Quantitative Health Sciences, Cleveland Clinic Cleveland U. STATES
Bassam Estfan The Harry R. Horvitz Center for Palliative Medicine, Cleveland Clinic Cleveland U. STATES
Fadie Mahmoud The Harry R. Horvitz center for Palliative Medicine, Cleveland Clinic Cleveland U. STATES
Declan Walsh The Harry R. Horvitz Center For Palliative Medicine, Cleveland Clinic Cleveland U. STATES
Mellar Davis The Harry R. Horvitz Center For Palliative Medicine, Cleveland Clinic Cleveland U. STATES

Background: Thalidomide blocks inflammatory cytokines and may improve multiple symptoms in cancer. An open labeled trial evaluated thalidomide safety and efficacy in cancer anorexia with secondary outcomes of improved sleep, pain, quality of life, early satiety, and weight gain. Methods: Eligible patients were ≥18 years, active cancer, anorexia, life expectancy >4 weeks, ECOG performance status 0 to 3, and completed the S.T.E.P.S.® program. Exclusion criteria were grade ≥2 peripheral neuropathy, chemotherapy, radiation, parental or enteral feedings, or other anorexia drug treatment. Appetite response was a 2-point improvement by numerical scale (0–10) and therapeutic efficacy > 60% of participant response using binomial analysis. Evaluation patients completed 2 week, minimal dose 50mg/day (range 50–100). Analysis involved evaluable patients. Toxicity was by NIH-CTC version 2. Secondary outcomes were assessed by Wilcoxon signed rank test. Results: 34 patients were treated. Binomial test for efficacy p=0.63 and response by NRS for appetite p=0.17 failed to demonstrate improvement. Pain (p=0.043), insomnia (p=0.004), weight (p=0.043), and quality of life (p=0.033) improved. 4 had a pain response and 5 improved insomnia without improved appetite. No patients developed > grade 2 neuropathy, skin rash or fever. 2 patients were withdrawn for sedation. Conclusions: Thalidomide did not improve anorexia but improved multiple other cancer symptoms. A randomized trial which compares thalidomide to placebo in the management of insomnia, pain, weight loss and quality of life, should be done.

31 Oral Presentation

Cachexia
The Association between Hypogonadism, Inflammation and Symptom distress in patients with Cancer Cachexia
Egidio Del Fabbro Palliative Care MD Anderson Cancer Center U. STATES
Shalini Dalal MD Anderson Cancer Center Houston U. STATES
Zhijun Li MD Anderson Cancer Center Houston U. STATES
Lynn Palmer MD Anderson Cancer Center Houston U. STATES
Tony Dev MD Anderson Houston U. STATES
Eduardo Bruera MD Anderson Cancer Center Houston U. STATES

Background: Hypogonadism is associated with fatigue, decreased strength, and elevated inflammatory markers. Similarly, cachexia is characterized by muscle loss, and an aberrant inflammatory response. Hypogonadism in patients with cancer cachexia could exacerbate symptom distress and diminish overall well-being. While there are recommended guidelines for testosterone replacement in chronic conditions such as HIV, there are non for cancer patients. The objective of this study was to examine the relationship between hypogonadism, symptom severity, and inflammation in a cohort of patients with cachexia. Methods: We reviewed the charts of 63 consecutive
male cancer patients who underwent a structured assessment in a specialized cachexia clinic at a comprehensive cancer center. 49 of the patients (78%) had their serum testosterone evaluated and 40(63%) also had C-reactive protein levels(C-RP) measured. Results: All patients gathered criteria for cachexia, including a weight loss of >5% within the preceding 6 months and appetite >3 on the Edmonton Symptom Assessment Scale (ESAS). Median age was 63, and 33(67%) patients had low testosterone levels (<240ng/dL) including 13(27%) with levels <100.Spearman correlation revealed higher C-RP levels (p<0.0003) and ESAS sleep scores (p<0.0012) in patients with lower testosterone levels. Median C-RP level was 7mg/L in those with normal testosterone compared to 21mg/L in hypogonadic patients. Symptoms of appetite, fatigue and overall well-being were worse in patients with low testosterone (median ESAS of 6, 5, 3 respectively) versus those with normal levels (median ESAS of 5, 4, 3 respectively), but were not statistically significant. Conclusions: Hypogonadism was present in more than two thirds of male patients with cancer cachexia and associated with significantly higher C-RP levels and worse sleep scores. Appetite, fatigue and well-being scores showed a trend towards an inverse correlation with testosterone levels. Patient accrual continues.

32 Oral Presentation
Cachexia
A Pilot Survey to Explore the Role of Physical Activity as a Supportive Care Intervention in Advanced Cancer Patients
Presenting author: Sharon Watanabe
Authors: Sonya Lowe Oncology/University of Alberta CANADA
Vickie Baracos University of Alberta Edmonton CANADA
Sharon Watanabe Cross Cancer Institute Edmonton CANADA
Kerry Courneya University of Alberta Edmonton CANADA

Background: Physical activity has been shown to improve supportive care outcomes in early stage cancer patients, but limited data are available in patients with advanced cancer. Our aim was to describe the physical activity patterns and programming preferences of advanced cancer patients, and determine any associations between physical activity and supportive care outcomes. Methods: Advanced cancer patients aged 18 years or older, with clinician-estimated life expectancy of less than 12 months and palliative care and oncology clinics, and palliative home care. Participants completed a cross-sectional survey interview assessing self-reported quality of life (McGill QOL Questionnaire), self-reported physical function (Late-Life Function and Disability Instrument), symptoms (Edmonton Symptom Assessment Scale), and physical activity patterns and preferences. Results: 50 patients were recruited. Walking was the most common reported physical activity. A significant ANOVA indicated that participants who reported walking greater than 30 minutes per day had higher existential subscores [0.76 (0.02 to 1.51); p=0.045], support subscores [0.73 (0.09 to 1.37); p=0.027] and total scores [0.45 (0.01 to 0.88); p=0.046] on the McGill QOL Questionnaire. There were no significant associations between participants who reported walking greater than 30 minutes per day and self-reported physical function or symptoms. 78% of the sample indicated interest in participating in a physical activity program, with 84% preferring a home-based program. Conclusions: There is a significant positive association between physical activity and quality of life scores in this sample of advanced cancer patients. The majority of this sample appears willing to participate in a physical activity program. An intervention trial based on these identified associations and preferences is in progress. Funded by the Canadian Institutes of Health Research.

33 Oral Presentation
Cachexia
Patient and staff attitudes to weight loss in advanced malignancy
Authors: Max Watson Palliative Care Northern Ireland Hospice / University of Ulster UNITED KINGDOM

Simon Coulter Royal Victoria Hospital Belfast UNITED KINGDOM
Caroline McLaughlin Northern Ireland Hospice Belfast UNITED KINGDOM
Sarah Kelt New Cross Hospital Wolverhampton UNITED KINGDOM

Background: Patients undergoing treatment for malignancy are weighed regularly. With increasing treatment options becoming available to maintain weight, Hospices may soon need to monitor weight more closely than they traditionally have done. This study seeks to discover patient and hospice staff attitudes to weight assessment. Methods: Hospices in UK and Ireland were surveyed regarding weight assessment attitudes and practice. A second survey of 125 patients in three centres was carried out. * 50 patients from the Regional Medical Oncology Centre in Auckland in March 2006 * 50 patients from the Northern Ireland Cancer Centre, Belfast between March 2007 and May 2007 * 25 patients from the Deanesly Oncology Centre, New Cross Hospital, Wolverhampton between March 2007 and July 2007. Results: Hospice Surveys: 215 surveys were circulated and 149 returned – a 69.3% return. 23.5% of respondents stated that their hospice did not have a working set of scales. 96.6% did not routinely weigh patients on admission. 4% stated that a patient was weighed in their hospice in the last 24 hours 54.4% felt weighing patients would cause upset 69.8% felt it would never be appropriate to routinely weigh patients in hospice. Patient survey: 76% of patients currently weighed themselves regularly at home 92% of patients never found it upsetting to be weighed in hospital 94% felt weighing was essential to monitor their condition. 98% of patients stated they would not mind if their weight was still measured regularly by those looking after them even if their illness were to worsen. Conclusions: Our study has revealed that patients with advanced malignancy wish to know their weight, often measure it themselves, and would welcome ongoing assessment even if not improving. In contrast Hospice professionals feel that weighing patients is inappropriate. If weight loss monitoring in hospice is going to be introduced with new treatments this dissonance will need to be addressed.

34 Oral Presentation
Cachexia
Identification of candidate genes for cancer cachexia
Authors: Benjamin Tan Clinical and Surgical Sciences (Surgery) University of Edinburgh UNITED KINGDOM
Frank Skorpen Norwegian University of Science and Technology Trondheim NORWAY
Kenneth Fearon University of Edinburgh Edinburgh UNITED KINGDOM representing the EPCRC

Background: Cancer cachexia is a debilitating disorder which causes significant mortality and morbidity. There is a known genetic contribution to a variety of key mechanisms that underlie the cachexia syndrome. We are examining a large panel of such genes, the dysfunction of which might reasonably be considered likely to contribute to cancer cachexia. We are also developing a scheme for defining the cachetic phenotype. The final phase of the project is then to link genotype to phenotype. Methods: Through a variety of sources, (e.g. PubMed, OMIM, cachexia experts) we selected candidate genes with a known or inferred biological function linked to cancer cachexia. A thorough review of the literature (using PubMed, Medline) was then conducted to identify single nucleotide polymorphisms (SNPs) that may affect the function of these genes. Novel genes are also being identified on Affymetrix expression arrays using muscle samples of cachetic patients. Results: Thus far, a total of 121 SNPs in 65 genes have been identified. Examples of SNPs identified include those in genes coding for cytokines, and genes regulating muscle degradation, lipolysis and appetite. Most of the SNPs identified have a minor allele frequency of greater than 5%. Conclusions: The mechanism of cancer cachexia is highly complex of which identification of specific genetic variants predisposing to the syndrome has been limited so far. We have identified 121 SNPs that may be potentially involved in the development of cancer cachexia. The next phase of the project is to examine the relationship between these genotypes and the cachexia phenotype. This research is funded by the European Palliative Care Research Collaborative (EPCRC) and is part of work package WP1.2.
35 Oral Presentation

Cachexia
A novel Cachexia Classification for Palliative Cancer Care: Synthesis of systematic literature review and nominal experts’ focus group
Authors: Florian Strasser Dept. Internal Medicine & Palliative Care Centre Oncological Palliative Medicine, Section Oncology SWITZERLAND
Aurelius Omlin Oncological Palliative Medicine, Cantonal Hospital St. Gallen SWITZERLAND
Jochen Walker Oncological Palliative Medicine and Surgery, Cantonal Hospital St. Gallen SWITZERLAND
David Blum Oncological Palliative Medicine, Cantonal Hospital St. Gallen SWITZERLAND
Ken Fearon Surgical Oncology, Royal Infirmary of Edinburgh Edinburgh UNITED KINGDOM

Background: The current definition of cancer cachexia (weight loss, anorexia) does poorly guide practice. To monitor clinical decisions, alleviate suffering and develop tailored anti-cachexia interventions, a novel cachexia classification system, adjusted for palliative care, is required. Methods: A SLR (1976–2007) was performed (PubMed, Cochrane, Embase, PsycINFO, CinAhl; search strings: cachexia, cancer, classification). Inclusion criteria: system or factor to classify patients with cachexia or to predict response to anticachetic treatment. Data extraction (2 raters) applied a formalized list, considering results of the first FG. Scoring for quality (Hawker) is done. Nominal FG of 12 academic cachexia experts discussed in 2 rounds “Which factors guide clinical decision making for cachexia management in daily practice?” Key findings from the first round and the SLR were presented in the second round. Collaboration with a non-cancer specific wasting/cachexia consensus group was achieved. The final synthesis includes eligibility criteria and stratification factors from registered anti-cachexia trials and applies a structured Delphi-type review process. Results: Of 9817 citations, 126 papers (7 systems, 112 factors; 7913 patients [50% GI, 20% lung cancer]) were included. 4 systems combined anthropometrics (AM), nutritional intake (NI), symptoms (SY) and inflammation (INF), 2 systems AM/NI and either SY or INF, 1 added REE and hormones. All systems challenge the old definition. Of the single factors, AM, INF, muscle strength and ghrelin classify cachexia in most studies, whereas NI, SY, metabolic alterations, REE, and leptin are variably reported. Responders in 84 anticachexia trials were not identified by factors. Consensus appears in cachexia as ongoing loss of muscle mass with 3 domains: depleted muscle protein, decreased ability to eat, and a catabolic drive. Symptoms are in all domains. Conclusions: A novel, pragmatic CCS-PC hold promise for care and research.

36 Invited Lecture

Systematic Reviews – what they can and what they can’t do?
Cochrane reviews in palliative care: where is the evidence?
Common errors and problems with systematic reviews in palliative care and how to overcome
Authors: Phil J. Wiffen Churchill Hospital, Pain Research Unit Pain, Palliative & Supportive Care CRG UNITED KINGDOM

This lecture will present an overview of what we currently have in terms of systematic reviews and controlled trials. Current challenges include a lack of suitable data for analysis, continued use of practices that have been shown to be ineffective or have little supporting evidence, challenges of extrapolation of results from outside palliative care and imperfect methodology to get the best from qualitative data. The goal of developing a systematic review for the major issues in palliative care is not an impossible dream but will need to stimulate a higher standard of research and development of collaborative research groups that can recruit larger numbers of participants for trials.

37 Invited Lecture

Systematic Reviews – what they can and what they can’t do?
Drug treatment of cancer-related fatigue. An example of a Cochrane review and of the problems with extrapolating results from cancer to palliative care
Authors: Paddy Stone Division of Mental Health St George’s Hospital Medical School UNITED KINGDOM

This presentation will discuss the difficulties of using the results of a Cochrane systematic review in routine clinical practice. The presentation will be illustrated with the example of a recently conducted review and meta-analysis of randomised controlled trials for patients with cancer-related fatigue (full results presented elsewhere). The author will explain how the review group settled on inclusion and exclusion criteria for the systematic review. These were based on a study quality standard requiring randomisation of treatment as a minimum. The impact of using different search strategies will be discussed. The chosen search strategy identified over 5000 abstracts with 116 being short-listed for potential inclusion. Only 45 studies fully met the inclusion criteria. It was decided only to analyse studies that used multi-item outcome measures – thus 27 trials were included in the meta-analysis. The rigorous criteria used in Cochrane reviews led to the exclusion of drug treatments examined only in phase 2 studies. Many studies of palliative care patients fell into this category and were excluded at the screening stage. The discussion of selected results will focus on how the findings can be applied in clinical practice. The populations studied were mainly receiving active treatment. The majority of the data comes from trials of anemic cancer patients receiving erythropoiein. It is unclear how these results can be applied to a palliative care population without further study. The author will discuss
the strengths and limitations of the chosen methodology and will try to draw broader conclusions about the conduct of future systematic reviews. The review highlights the lack of well designed large scale studies in palliative care and provides directions for future research in this under-investigated symptom. Large scale trials for symptoms such as fatigue should be based on the results of systematic reviews such as this.

39 Invited Lecture

Plenary Session 2
Research in end-of-life care – clinical findings and methodological challenges
Authors: Sheila Payne Institute for Health Research Lancaster University UNITED KINGDOM

The aspiration to design and conduct high-quality research in palliative care has been an important but elusive goal. The paper evaluates the nature of research methodologies presented in published research within the broad remit of palliative care. A systematic search of the Medline database between 1997 and 2006, using the keywords ‘palliative care’ or ‘end of life’ care and ‘research methodology’, identified over 318 publications. A bibliometric analysis indicates an incremental increase in published outputs per year, from 27 countries, with papers widely distributed across 108 journals. The heterogeneity of the research methodologies and the journals publishing them, present challenges in defining what constitutes ‘high-quality’. We argue that while this diversity might be seen as a weakness which results in a lack of coherence for a single disciplinary paradigm for palliative care; an alternative view is that there is a greater acknowledgement of the differing epistemological and theoretical frameworks used by researchers. This could be regarded as enriching our understanding of what it means to be dying in contemporary society.

40 Plenary presentation

Plenary Session 2
Cost Savings Associated with Hospital Palliative Care Consultation Programs
Authors: Diane Meier Department of Geriatrics Mount Sinai School of Medicine U. STATES
J. Brian Cassell Massey Cancer Center Richmond U. STATES
Ann Litke Mount Sinai School of Medicine New York U. STATES
Melissa Caust-Ellenbogen Mt. Carmel Health Systems Columbus U. STATES
Joan Penrod Mount Sinai School of Medicine and the James J. Peters VA Medical Center New York U. STATES
Lynn Spragens Mount Sinai School of Medicine and the James J. Peters VA Medical Center New York U. STATES
R. Sean Morrison Mount Sinai School of Medicine and the James J. Peters VA Medical Center New York U. STATES

Background: Hospital palliative care teams have been shown to improve clinical care. This study examined the effect of palliative care consultation teams on U.S. hospital costs.

Methods: We analyzed administrative data from 8 U.S. hospitals with established palliative care programs from 2002-2004. Patients receiving palliative care were matched by propensity score between 1997 and 2006, using the keywords ‘palliative care’ or ‘end of life’ care and ‘research methodology’, identified over 318 publications. A bibliometric analysis indicates an incremental increase in published outputs per year, from 27 countries, with papers widely distributed across 108 journals. The heterogeneity of the research methodologies and the journals publishing them, present challenges in defining what constitutes ‘high-quality’. We argue that while this diversity might be seen as a weakness which results in a lack of coherence for a single disciplinary paradigm for palliative care; an alternative view is that there is a greater acknowledgement of the differing epistemological and theoretical frameworks used by researchers. This could be regarded as enriching our understanding of what it means to be dying in contemporary society.

41 Plenary presentation

Plenary Session 2
A Randomised, double-blind, placebo-controlled, cross-over, multi-centre trial to evaluate the efficacy of Intranasal Fentanyl for Breakthrough Pain in cancer patients
Authors: Stein Kausa Department of Cancer Research and Mol. Medicine NTNU NORWAY
Thomas Nolte Zentrum für ambulante Palliativversorgung, Schmerz- und Palliativzentrum Wiesbaden Wiesbaden GERMANY
Torben C. Andersen Nycomed Roskilde DENMARK

Background: A prospective placebo controlled multi-centre study was conducted in order to evaluate efficacy of intranasal fentanyl (IF) in the treatment of breakthrough pain (BTP) in 159 randomised cancer patients.

Methods: Patients on stable, chronic opioid treatment and who experienced a minimum of three BTP episodes per week and a maximum of four pr. day were included. Patients received in random order 8 numbered sprays containing two sprays of each of the following doses: placebo, 50, 100 and 200 mcg IF administered as one puff in one nostril. If pain relief after 10 min was insufficient, a second IF was administered. Rescue medication could be administered after additional 10 minutes. Pain intensity (PI) was recorded on an 11-point NRS at 0, 10, 20, 40 and 60 min after the first puff. General impression (GI) of efficacy at 60 min were rated on a categorical 5-point VRS: 0=poor, 1=fair, 2=good, 3=very good, 4=excellent. The primary endpoint was pain intensity difference at 10 min (PID10) after the first puff. The PID10 was calculated as the difference between PID10 and the PID0. Secondary endpoints were PI for the time interval 0-60 minutes (SPID60) and GI. The analyses of PID10 and GI were based on a linear model with a step-down testing of the active doses versus placebo. Results: For placebo, IF 50, 100 and 200 mcg PID10 were 1.41, 1.82, 2.23 and 2.65 (p<0.001), corresponding to PID10 >2 of 22%, 29%, 42% and 50%, SPID60 2.02, 2.64, 3.10 and 3.53 (p<0.001) and GI 0.96, 1.32, 1.57 and 1.90 (p<0.001). Overall adverse events were: Vomiting 4.6% (7), nausea 3.9% (6), dyspnoea 2.0% (3), vertigo 2.0% (3), headache 1.3% (2) and somnolence 1.3% (2). One patient was identified with a serious adverse event in form of respiratory depression. Conclusions: Pain intensity improved significantly for all three IF dose levels. All doses were safe to administer, and well tolerated by the patients. IF is a promising treatment for the management of BTP.

42 Oral Presentation

Assessment and measurement tools
The Malignant Wound Assessment Tool (MWAT): A Validation Study
Authors: Neil Hagen Oncology Tom Baker Cancer Centre and University of Calgary CANADA
Kathryn Kozell London Regional Cancer Centre London, Ontario CANADA
Patricia Biondo Tom Baker Cancer Centre, Alberta Cancer Board Calgary, Alberta CANADA
Carla Stiles Tom Baker Cancer Centre, Alberta Cancer Board Calgary, Alberta CANADA
Valerie Schulz University of Western Ontario London, Ontario CANADA
Lina Martins London Regional Cancer Centre London, Ontario CANADA
Katia Tonkin University of Alberta Edmonton, Alberta CANADA

Results: Results of Base-Case Analysis: 2,630 of 2,966 patients (89%) PC patients were significantly less costs compared to usual care patients. PC patients were significantly less likely to die in ICU (OR=10, 95% CI .04, .19, P<.001). Results of Sensitivity Analysis: Including average costs/day prior to PC and prior to an established reference day for usual care patients in the propensity score models resulted in similar results with fewer matched subjects. Estimating costs for PC patients assuming that they did not receive PC resulted in projected costs that were not significantly different from usual care costs.

Conclusions: Palliative care consultation teams result in significant cost savings to hospitals.
Background: Malignant wounds, caused by direct invasion of cancer into the skin, occur in cancer patients with primary skin tumors, and as cutaneous metastasis in about 10% of patients with metastatic internal malignancies. Malignant wounds can have a profound impact on patients, family members and clinicians. Assessment of the patient with a malignant wound is complex, and until now, there has been no widely accepted, consistent approach. Valid, descriptive survey research methods were used to develop the Malignant Wound Assessment Tool (MWAT).

Methods: We developed two versions of the MWAT: a brief clinical version (MWAT-C) and a more detailed research version (MWAT-R). Domains include clinical wound features (size, location, classification), physical effects (pain, odor, exudate, bleeding, edema and functional impairment), and emotional and social impacts. The two tools then underwent content and construct validity testing using a Delphi process, involving professionals with significant clinical or research expertise related to malignant wounds. An international expert panel was formed (n=32 members from Canada, US, UK, Denmark, and New Zealand). Panelists were given the option to review one or both tools. Results: Panelists participated in two rounds of review for each tool. Response rates were acceptable for each round. For both tools, there was a positive shift between rounds of review resulting in substantial consensus on individual tool items. Conclusions: Validity testing of the MWAT-C and MWAT-R tools through the Delphi process has resulted in tools, which we will share at the conference, that can support clinical and research activities on individual tool items.

Response rates were acceptable for each round. For both tools, there was a positive shift between rounds of review resulting in substantial consensus on individual tool items. Conclusions: Validity testing of the MWAT-C and MWAT-R tools through the Delphi process has resulted in tools, which we will share at the conference, that can support clinical and research activities designed to improve care for patients. Next steps will include dissemination of the tools for routine use, and further validation and reliability studies involving patients in various practice and research settings. Funding provided by: Canadian Institutes of Health Research Grant ПET69772.

43 Oral Presentation

Assessment and measurement tools
Palliative Care Staff Satisfaction: The Survey of Team Attitudes and Responses (STAR)


Background: Despite the emotional and interpersonal challenges that hospice and palliative care workers face in providing care to patients near the end of life, no systematic effort has been made to evaluate the work environment that hospice and palliative care providers provide to their staff. The aim of this project was to develop a job satisfaction survey that could be used to evaluate the hospice work environment and, ultimately, to guide interventions to improve the work experience for hospice staff. Methods: The Survey of Team Attitudes and Relationships (STAR) was developed through semi-structured interviews with an interdisciplinary sample of staff from nine hospices, and then refined with input from additional interviews and from an expert panel. The draft was tested on larger samples of staff (n = 160) from six hospices and revised with input from the expert panel. The final survey was tested with 599 staff from 10 hospices. Results: The final survey contains 45 items in six domains: individual work rewards, teamwork, management support, organizational support, workload issues, and global assessment of job satisfaction. Items had excellent psychometric characteristics, with acceptable floor and ceiling effects. The overall STAR had a Cronbach’s alpha of 0.93, indicating good homogeneity, and each domain had alpha values that are appropriate for between-group comparisons (range 0.74e0.84). Conclusions: These results suggest that the STAR offers a unique instrument to measure the work environment hospices and palliative care programs provide to their staff. Workforce excellence is a significant factor in the provision of quality palliative care and poses unique challenges for palliative care providers. This survey has now been introduced to all hospice and palliative care providers in the United States by the National Hospice and Palliative Care Organization and will be used to benchmark staff satisfaction throughout the over 4,000 US hospice providers and may be useful in other countries.

44 Oral Presentation

Assessment and measurement tools
Detecting psychological distress in palliative care: validating screening tools against psychiatric interview

Presenting author: Mike Bennett
Authors: Parvez Thakor School of Molecular & Clinical Medicine University of Edinburgh UNITED KINGDOM Chitra Venkateswaran St. Gemma's Hospice Leeds UNITED KINGDOM Manoj Kumar Leeds Mental Health Trust Leeds UNITED KINGDOM Mike Bennett International Observatory on End of Life Care, Lancaster University Lancaster UNITED KINGDOM

Background: Psychological distress is common but not routinely picked up in palliative care. Systematic and routine screening is now recommended in most cancer settings. Examining validity of screening questionnaires is an essential step prior to their use in this population. This study examined the validity of Distress Thermometer (DT) along with two other screening questionnaires (BSI-18, GHQ-12) in detecting psychological distress in the terminally ill by comparing against a semi-structured psychiatric interview: Schedules for Clinical Assessment in Neuropsychiatry (SCAN). Methods: Consecutive and eligible patients were recruited from inpatient and day hospice attendees at St. Gemma’s and Wheatfield’s Hospices, Leeds. Patients completed the three questionnaires, adapted on to a one touch screen format. Within 72 hours, the gold standard psychiatric interview, SCAN, was conducted by one of the two trained psychiatrists with established inter-rater reliability. The questionnaires were compared against the SCAN interview using Receiver operator curve (ROC) analysis. Results: A total of 226 patients were approached, 52 opted out and 24 dropped out. 150 patients completed all interviews. The mean age was 70 years (SD 12). More than half of the sample died within six weeks of the interview (median survival time: 44 days. We found 34% of our sample had psychiatric morbidity; the commonest form of distress is Adjustment disorder (22%), and not Depressive disorders (7%). A past history of psychological problems/treatments was significantly associated with the presence of distress. The three questionnaires perform reasonably well in correctly identifying distress in this population. All show an area under the curve of >0.725. Distress Thermometer at a cut off of 5 shows a sensitivity of 0.77 and sensitivity of 0.59 with a positive predictive value of 50%. Conclusions: Given the similar performance of the three screening questionnaires, we recommend using Distress Thermometer, which is the briefest and easiest to complete.

45 Oral Presentation

Assessment and measurement tools
Measuring hopelessness at the end of life

Authors: Barry Rosenfeld Psychology Fordham University U. STATES William Breitbart Memorial Sloan-Kettering Cancer Center New York U. STATES Hayley Pessin Memorial Sloan-Kettering Cancer Center New York, NY U. STATES

Background: Hopelessness has been increasingly recognized as a critical factor in end-of-life decision making (e.g. terminating life-sustaining treatments, suicidal attempts). Yet hopelessness is poorly understood, particularly in the context of a terminal illness. Current measures are often too long and contain inappropriate items for palliative care patients. This paper
describes the development a new measure of hopelessness for use with terminally ill patients. **Methods:** A mixed methods approach to construct exploration and validation was used. Expert clinicians (n=15) and terminally ill cancer patients (n=30) were interviewed to identify elements of hopelessness. Qualitative analysis was used to extract themes and develop questionnaire items. The initial 20-item questionnaire was administered to 400 terminally ill cancer patients drawn from a palliative care hospital and two cancer centers. Classical and item-response analyses were used to identify the optimal set of items for use in a subsequent validation study. **Results:** Analysis of the initial 20-item scale revealed 8 items with optimal discrimination that were revised to form a final scale. This revised scale was subsequently administered to a new sample of 200 terminally ill cancer patients, along with other measures (e.g., hopelessness, desire for hastened death, depression, and optimism). The revised 8-item scale had adequate reliability (α=81) and strong correlations with measures of concurrent validity; r=.77 with the BHS and r=.71 with the SAHD. **Conclusions:** These results provide strong support for a new brief measure of hopelessness in advanced cancer. It has the potential to improve research on distress and decision making at the end of life and may be a useful clinical tool to identify individuals who need mental health treatment or for evaluating these interventions.

**46 Oral Presentation**

**Assessment and measurement tools**

**Computer-based symptom assessment in palliative cancer care: To what extent is time expenditure influenced by age, gender, educational level, and Karnofsky performance status?**

**Authors:** Even Høvig, Fyllingen Department of Cancer Research and Molecular Medicine Norwegian University of Science and Technology NORWAY Marianne Jensen Hjermstad Department of Oncology, Ullevaal University Hospital Oslo NORWAY Line Merethe Oldervoll Department of Cancer Research and Molecular Medicine, Faculty of Medicine, Norwegian University of Science and Technology Trondheim NORWAY Katrin Ruth Sigurdardottir Regional Centre of Excellence for Palliative Care, Western Norway Haukeland University Hospital Bergen NORWAY Dagdny Faksøv Haugen Regional Centre of Excellence for Palliative Care, Western Norway, Haukeland University Hospital Bergen NORWAY Stein Kaasa Department of Cancer Research and Molecular Medicine, Faculty of Medicine, Norwegian University of Science and Technology Trondheim NORWAY Ørnulf Paulsen Palliative Care Unit, Telemark Hospital Skien NORWAY

**Background:** Symptom assessment is an important part of symptom management in palliative care cancer patients. Computer-based assessment may give automatic presentation of summarised results, be tailored to the individual patient, and as such provide more accurate data, particularly if the assessment system is compatible with the electronic medical records. Despite the benefits, health care providers often act as gatekeepers and claim that their patients are too weak or too old to use computerised tools. Despite the benefits, health care providers often act as gatekeepers and claim that their patients are too weak or too old to use computerised tools. The aim of the present study was to investigate whether age, gender, educational level, and Karnofsky performance status matter. The differences are small, and although statistically significant they are not to a degree that prohibits the use of computerised assessment in clinical settings.

**47 Oral Presentation**

**Assessment and measurement tools**

**Assessing pain severity and interference: the EPCRC project**

**Authors:** Peter Fayers University of Aberdeen Medical School Department of Public Health UNITED KINGDOM Marianne Hjermstad Ulleval University Hospital Oslo NORWAY Jon Håvard Loge Rikshospitalet University Hospital Oslo NORWAY Stein Kaasa St. Olavs Hospital, Dept. of Palliative Medicine Trondheim NORWAY

**Background:** Despite the huge number of assessment tools available for measurement of pain, there is still no international agreement on how to classify and measure pain in advanced cancer, neither for clinical use nor for research. Furthermore, few of the existing tools for assessment of cancer pain are internationally developed and internationally accepted. The European Palliative Care Research Collaborative (EPCRC) is developing a computer-based pain assessment instrument, as a first step towards pain assessment and classification. **Aim:** We present analyses of the performance and psychometric properties of the pain items that form the item pool for the pain assessment tool, with focus on the on the measurement of pain intensity and pain interference. **Population:** A Norwegian multi-centre study was coordinated from The Norwegian University of Technology and Science (NTNU), and 779 patients with advanced cancer receiving palliative care were recruited. The computerised data collection was completed in 2007. **Statistical Analysis:** Both traditional psychometric analyses and item response theory (IRT) were used to validate the items and to determine the optimal items to retain as an item pool. **Results:** A set of items has been identified to form the basis of a computer adaptive test (CAT) for assessing the two dimensions, pain severity and pain interference, and these items have been calibrated using IRT. **Conclusions:** Pain severity and pain interference can be measured most efficiently, most precisely and with minimum patient burden using an IRT-based computer adaptive test.

**48 Invited Lecture**

**Best Supportive Care versus chemotherapy? The right question to ask?**

**Best supportive care in lung cancer – do we know what it is?**

**Authors:** Rumona Dickson Marie Curie Hospice Liverpool Liverpool UNITED KINGDOM Angela Boland Marie Curie Palliative Care Institute Liverpool Liverpool UNITED KINGDOM James Stevenson Marie Curie Palliative Care Institute Liverpool Liverpool UNITED KINGDOM Barbara Jack Marie Curie Palliative Care Institute Liverpool Liverpool UNITED KINGDOM

**Introduction:** In order to evaluate the costs and cost-effectiveness of clinical treatments there is a need to be able to clearly define both the treatments and their costs. In our recent experience of conducting systematic reviews of clinical and cost effectiveness for the National Institute of Health and Clinical Excellence (NICE) we were challenged in our endeavours to conduct cost-effectiveness analysis related to best supportive care in lung cancer. This review was conducted as a contribution to such analysis.
**Objective:** To identify and discuss the clinical components of best supportive care (BSC) packages for patients in lung cancer trials and to determine to what extent the conduct of clinical and cost-effectiveness analyses (CEAs) are fully informed. **Design:** Systematic review of RCTs, systematic literature reviews (SRs) and economic evaluations (EEs) which compare chemotherapy versus BSC for adult patients in lung cancer trials. **Results:** 26 RCTs, 13 SRs and 41 EEs met the review inclusion criteria. Less than 50% of relevant studies included formal definitions of BSC. None of the papers included in the review adequately described or outlined the BSC options available to patients, how BSC was delivered or by whom. Data described in the studies do not facilitate the generation of a clear definition of a patient pathway in relation to BSC or a clear list of components or costs of such care. **Conclusions:** Failure to clearly define BSC packages means that comparison of treatment outcomes within and across trials is problematic. Formal definitions of BSC with set parameters for the common complications of advancing disease, not just the physical symptoms, need to be established to inform the design of future RCTs and CEAs. From an ethical perspective, it would seem appropriate to provide patients with an adequate definition of the care they could expect to receive within the comparator arm of a cancer trial. Health care professionals involved in the conduct and reporting of cancer trials must aim to communicate the BSC package delivered to patients.

**49 Invited Lecture**

**Best Supportive Care versus chemotherapy? The right question to ask?**

**Optimal outcomes for studies comparing best supportive care with chemotherapy**

**Authors:** Fausto Rolla Medical Oncology Division ITALY
Sonia Fatigoni Medical Oncology Division Perugia ITALY

Until 10 – 15 years ago chemotherapeutic agents have been introduced in the clinical practice on the basis of their activity represented by the rates of complete and, more frequently, partial responses, their duration and the time to the disease progression. On the other hand, these variables did not necessarily have a clear relationship to the treatment’s impact on survival and quality of life, that represent the indexes of efficacy. Therefore, many subsequent phase III studies in several disseminated cancer patients compared the chemotherapeutic agents with respect to the best supportive care to demonstrate their efficacy. Even not clearly defined and standardized, best supportive therapy means the best control of the cancer symptoms in the clinical practice. Today, we have several of these studies carried out for example in lung, gastric, pancreatic disseminated cancer that often showed the superiority of the chemotherapeutic agents or combinations in terms of overall median survival without a negative impact on the quality of life. Of course, these studies should have been planned with a sound methodology (i.e., randomized, prospective, if possible blind studies with a sample size calculation, using validated quality of life instruments, etc.). Unfortunately, until recently, this has not been the case for many of these studies as we will discuss in the presentation. Furthermore, it is necessary to outline that these studies in any case need to be well interpreted. For example, the frequent impossibility to blind the treatments even if have not impact on survival conditioned their effect on quality of life (symptoms and adverse effects, psychological status, social relationship, etc). This is also true for double blind, placebo-controlled, phase III studies evaluating the efficacy and tolerability of target therapies in which adverse events (i.e., skin toxicity) permit to recognize patients submitted to the treatment with respect to those submitted to placebo. Finally, the administration of large doses of corticosteroids for more consecutive days to avoid adverse events of chemotherapeutic agents, as in the case of docetaxel, could induce a better quality of life with respect to patients receiving best supportive care alone due to impact of corticosteroids on symptoms (amelioration of anorexia, asthenia, nausea and cenesis). In this case we erroneously could have attributed this result on quality of life to the chemotherapeutic agents.

**50 Invited Lecture**

**Best Supportive Care versus chemotherapy? The right question to ask?**

**BSC a faulted methodology in need of standards**

**Authors:** Nathan Cherny Shaare Zedek Medical Center Director Cancer Pain and Palliative Medicine, Dept Oncology ISRAEL

(BSC) in two 1988 articles reporting on chemotherapy studies initiated in 1983–84. The qualifier “best” implies that patients are provided optimal palliative care. Most studies which employ a best supportive care arm enroll patients with poorly responsive cancers such as non-small cell lung cancer and colorectal cancer. Usually, but not invariably, the supportive care arm is found to be inferior to the chemotherapy arm with respect to objective tumor response and survival. It was subsequently concluded that it is almost always better to receive treatment than to be referred for palliative care. This literature is intrinsically misleading since the term “BSC” does not represent any formally defined concept, rather, it evolved as a politically correct alternative to “no chemotherapy” that would be palatable to both patients and ethical review boards. In actuality the “BSC” provided in these studies can, at best be described as ad-hoc provision of supportive/palliative care by oncology physicians with no specific training. Indeed, one may suspect that in some studies the so-called “best supportive care” may more accurately be expressed as “not-so-best supportive care”. This suggestion is supported by a very well developed literature indicating that many oncologists have deficient skills in the management of pain and palliative care. This adds further to the doubt that in the absence of highly specified programs involving palliative care physicians, patients would have received “BSC”. The methodologies in these studies are characterized by a paucity of data describing “BSC”. Overall the treatment programs were reactive i.e. that people can receive antibiotics for infection, opioids for pain, blood transfusions for anemia, etc. Not one investigator involved a palliative care or hospice team in a study. It is thus impossible to draw conclusions at to the relative merit of skilled palliative care as compared to chemotherapy for this patient group. This analysis underscores the need for clear standards for the “BSC” arm of clinical studies seeking to address this important question.

**51 Invited Lecture**

**The Trial of Trials in Palliative Care Research Choosing a placebo**

**Authors:** Claudia Bausewein Dept. of Palliative Care, Policy & Rehabilitation King’s College London UNITED KINGDOM

Randomised controlled trials (RCTs) aim to establish the efficacy of a new intervention. If there is no active or standard beneficial treatment placebos are often used as controls. A placebo is defined as a substance without a pharmacological effect or a sham treatment or an inactive procedure. The so-called placebo effect is a non-specific effect related to the credibility of the intervention, patients’ expectations and the therapeutic setting. There is controversy about the size of the placebo effect. It has been questioned whether there is an effect at all. Mostly it has been estimated to be about 30% but beneficial results of up to 60–90% have been reported. However, the claimed effects may be due to spontaneous improvement, fluctuation of symptoms, regression to the mean, additional treatment, answers of politeess, scaling bias etc. Careful attention has to be given to which placebo to choose. This might be straightforward in a drug trial. Originally, RCTs focused on drugs with a bio-medical theory base. A drug is prescribed on the base of a bio-medical diagnosis which has been established beforehand. In these pharmacological trials inert dummy pills are frequently used as placebos. However, more recently complex interventions such as acupuncture or psychotherapy or multi-professional palliative care interventions are also tested in RCTs. Often complex interventions such as acupuncture have a non-biomedical theory base where talking and listening to patients are part of the intervention. In trials with experience-based treatments it is
almost impossible to compare the treatment with true placebos as the placebos will be obvious to the patients and can therefore hardly be double-blind. In this presentation various examples for placebos in palliative care trials will be given and own experiences conducting an RCT of a hand-held fan to relieve breathlessness compared to a wristband will be reflected.

52 Invited Lecture

The Trial of Trials in Palliative Care Research
Clinical Trials in palliative care: cluster randomization and other opportunities beyond traditional designs
Authors: Massimo Costantini Unit of Clinical Epidemiology and Trials National Cancer Institute ITALY

In cluster randomised trials, groups of subjects, rather than individuals, are randomised to receive or not an intervention. According to the type of cluster, two main types of trial have been described: a) the intervention involves health professions (i.e. a program of training or education) with the aim of finding benefit for patients followed by these professionals; b) the intervention involve communities (i.e. a clinic, an hospital, a region) with the aim of finding benefit for the target population of the community. This study design is becoming more and more attractive for evaluating palliative care interventions, after the publication of the results of the randomised cluster trial by Jordhoy MS, et al. In this trial, three pairs of health care districts were randomised to receive a palliative care intervention to enable more patients to die at home (experimental arm) or conventional care (control arm). As usual in cluster trials, the intervention was targeted to the community, but the outcomes (place of death and time spent in institutions in the last month of life) were evaluated at the individual level. Although interesting, these kind of trials require additional competences in planning, conduct, analysing and reporting the results. The poor quality of most cluster trials, as shown by a number of published surveys, stimulated the extension of CONSORT statement to cluster randomised trials. Two large cluster randomised trials in the area of palliative care are going to be implemented into the Italian context in the next two years, and their study design will presented and discussed in the session. The first trial will randomise medical wards to receive or not an experimental intervention with the aim of improving pain control in the recovered patients. The second trial will test the effectiveness of the Liverpool Care Pathways (LCP) for the care of the dying in improving the quality of end-of-life care in the hospital settings.

53 Invited Lecture

The Trial of Trials in Palliative Care Research
Clinical Trials in Breathlessness
Authors: Sara Booth Oncology Dept Addenbrookes Hospital UNITED KINGDOM

Breathlessness is a complex multi-dimensional symptom which at present is very hard to palliate. One of the barriers to improving care for this devastating symptom, which affects both patients and carers, has been the difficulty in carrying out adequately powered, well designed clinical trials which would give unequivocal results on the effectiveness of different interventions for breathlessness. Many palliative care interventions are multifaceted and fit the definition of ‘complex’ i.e. ‘built up from a number of components, which may act both independently and interdependently 1 used by the MRC. Other trials, such as drug trials, are apparently simpler, in that one intervention only is being tested but as 2 review of the literature on opioids revealed there is little standardization of methodology for even these investigations leading to many trials and little hard evidence. There has been little agreement on the standardization of outcome measures, baseline socio-economic data, the place of quality of life measurement and clinically significant changes in breathlessness scales 3. In order to test any intervention effectively the right methodology must be used. In this presentation different trial methodologies will be explored, including the parallel group RCT the cross over trial 4 , 5, the MRC evaluation of complex interventions 1 and Phase II drug studies, with reference to recent trials in breathlessness. The particular difficulties and pitfalls of research in this area will be highlighted and the consensus on research methodology in this area, being developed by the National Cancer Research Institute’s Breathlessness Sub-group will be presented.

54 Invited Lecture

The Trial of Trials in Palliative Care Research
Is there a role for waiting list (or delayed intervention) randomised controlled trials in palliative care research?
Authors: Irene J Higginson Palliative Care and Policy King’s College London UNITED KINGDOM

Randomised controlled trials are difficult to conduct in palliative care, and there are many failed or underpowered studies. Challenges include: low recruitment, including patient or family refusals, staff concerns about “not offering an intervention,” the ethics of trials when patients are near the end of life, and the effects of disappointment when patients and staff are offered the control. Patient preference and cluster randomised trials have been proposed to overcome these and other difficulties, but these trials require a large increase in sample size for analysis, which is also difficult to achieve. As palliative care begins to extend into non cancer care two opportunities emerge: (1) to undertake rigorous evaluations of services and treatments, that were not possible due to capacity and expertise in cancer palliative care and (2) to develop and refine new methods of evaluation suitable for these new populations. The methods may also prove suitable for some cancer studies. The ‘wait list’ (or delayed intervention) randomised trials have been used in rehabilitation and health services research. This design uses standard procedures of recruitment and randomisation, but instead of patients being informed they will receive either the control or the treatment (or intervention) they are told that they will be randomised to received the treatment immediately or after ‘a wait’. Patients are followed up in the usual way. This presentation will consider the use of this method in two phase II evaluations, first of a new palliative care service for people affected by Multiple Sclerosis and the second Breathlessness Intervention Service. Uptake, recruitment and retention in both studies was good, and superior to earlier randomised trials. There was some early contamination between groups, but we were able to resolve this. Care is needed in the description and explanation of the design, and in the management of patients who refuse to participate in the study.

55 Invited Lecture

EPCRC, IASP and WHO: A step forward in Cancer Pain diagnosis and treatment?
Pain classification – moving towards an international consensus
Authors: Marit S. Jordhoy European Palliative Care Research Collaborative (EPCRC) NTNU NORWAY
Anne Kari Knudsen European Palliative Care Research Collaborative (EPCRC) Trondheim NORWAY
Nina Aas European Palliative Care Research Collaborative (EPCRC) Trondheim NORWAY
representing the EPCRC

For the classification of cancer pain, there are a number of existing approaches. Most of these are informal systems based on pain characteristics such as etiology and pathophysiology. A few formal classification systems have been developed, e.g. the IASP classification and the Edmonton Classification System for Cancer Pain, none of which is widely used. As a consequence, the description of cancer patients with pain varies largely, hampering both the interpretation of research findings as well as valid comparisons between studies and settings. One objective of the EPCRC Work Package 2.1 is to develop an international consensus based classification system for cancer pain. The first step of work aims at a system that can provide a consistent description of advanced cancer patients with pain entering into clinical studies. To
achieve this, several factors that may influence the pain experience and prognosis as well as the effect of treatment will have to be taken into account. Firstly, there are factors related to the pain per se, e.g. the occurrence of breakthrough pain, and the location and mechanisms of pain. Secondly, there are factors related to the patient, e.g. former use of analgesics and/or other drugs, the patient’s age and his/her emotional status, and thirdly there are disease related factors e.g. cancer diagnosis and metastatic pattern. Although the impact on pain experience, prognosis and treatment of some of these factors is well described, the influence and importance of others are more poorly understood. Hence, to decide which factors to include in the classification system, further exploration and testing is necessary. Within the frames of the EPCRC, this will be done through multinational patient and expert evaluation, and by means of an international clinical study. The hypothesis is that all three categories of factors, i.e. pain-, patient-, and disease related, will have to be included. A first proposal will be presented.

**56 Invited Lecture**

EPCRC, IASP and WHO: A step forward in Cancer Pain diagnosis and treatment?

**Pain assessment – a standardised computer based tool in the near future?**

Authors: Marianne Hjermstad Department of Oncology Ulleval University Hospital NORWAY representing the EPCRC

**Background:** Many patients experience suboptimal pain control, due to inadequate pain assessment. The lack of agreement on how to assess and classify pain demonstrates the need for inter-disciplinary collaborative like the EPCRC to reach consensus on pain and symptom assessment in advanced cancer. **Objectives:** To develop a consensus based symptom assessment tool for use in practice and research. **Methods:** The development process largely follows the Delphi technique, an iterative multistage process to reach group consensus, consisting of 9 steps: 1). Constructing an item pool from literature reviews and expert reviews on pain dimensions/items, 2). Clinical computerized study testing the item pool, 3). Data analyses/publications, 4). 2nd expert review, 5). Patient interviews, pilot studies, 6). Defining items/dimensions and the computerized analysis model, 7). 2nd data collection, international, 8). Data analyses/publications, 9). First version of the assessment tool. **Results:** As of April 2008, we have completed the first 5 steps with publications in progress. Patients, clinicians and researchers have contributed at all stages. Three main categories for classification of pain are identified: pain factors, patient variables, disease factors. The clinical study yielded 732 pain assessments. Analyses showed that the included pain interference items generally performed less well than the pain intensity items, and that numerical rating scales (NRS) may be superior to verbal rating scales for raring pain intensity. Few patients scored above 5. Assessment by computers was well accepted by patients. Software programming for the multicenter study (12 centers) is ongoing. Advanced programming makes possible comprehensive pain assessment and rapid pain screening at the same time, for use in different clinical situations. **Conclusion:** With all users, patients, clinicians, researchers involved in the development process, it should be possible to develop a first version of a consensus based assessment tool.

**57 Invited Lecture**

EPCRC, IASP and WHO: A step forward in Cancer Pain diagnosis and treatment?

**Cancer pain guidelines in the EPCRC project**

Authors: Augusto Caraceni National Cancer Institute Rehabilitation and Palliative Care Unit ITALY
Stein Kausa Palliative Medicine Unit Trondheim NORWAY
Geoffrey Hanks Bristol Hematology and Oncology Centre Bristol UNITED KINGDOM
Jane Gibbins Bristol Hematology and Oncology Centre Bristol UNITED KINGDOM

**Background:** Aims: In order to revise and update the EAPC recommendations on opioid administration, published in 2001, we conducted a literature search of available chronic cancer pain guidelines. **Methods:** This was done through an internet search from various websites (Google, Pubmed and Cochrane library). A list of 18 guidelines on pain treatment published after 2000, was found. Seventeen available in English and one in French only; in particular 9 U.S. guidelines, 7 from European countries, one Asiatic and one Australian. The content of national and international guidelines were compared with the 20 EAPC recommendations. Not all the 20 recommendations were considered by each guideline, and in some cases the strength of recommendations was completely different from EAPC. The structure, the methods and the content of all guidelines have been reviewed and compared with EAPC guidelines. **Results:** Most guidelines include additional subjects not covered by EAPC recommendations; e.g. indications about when to use adjuvant drugs, nonsteroidal anti-inflammatory drugs (NSAIDs), bisphosphonates, radionuclides and radiotherapy. The comparison of all guidelines lead to the formulation of 37 key points to be potentially included in the new EAPC guideline. **Conclusions:** An international expert group of 27 members has been appointed to participate in the guideline development process.

**58 Invited Lecture**

EPCRC, IASP and WHO: A step forward in Cancer Pain diagnosis and treatment?

**Cancer pain and the WHO analgesic ladder: time for reappraisal**

Authors: Geoffrey Hanks Department of Palliative Medicine Bristol Haematology and Oncology Centre UNITED KINGDOM

The ‘WHO ladder’ has been the guiding concept in the management of cancer pain worldwide for more than 20 years. This has been one of the most influential and enduring guidelines in modern clinical practice. How effective is the WHO method? The prospective observational validation studies demonstrated that roughly 80% of patients achieve good pain control (1). The validity of this figure has been questioned (2) and there is no evidence from RCTs to support it. There is evidence that many patients still suffer unrelieved pain (3, 4) and recent data from Bristol suggest that many patients may suffer troublesome pain in spite of treatment according to current best practice. The WHO guidelines need to be updated. What will change? The utility of Step 2 has long been questioned and specifically whether the inclusion of Step 2 delays achievement of optimum pain control for some patients. Recent data suggest that a two step approach may be a safe and better alternative to the conventional ladder in these patients but more robust evidence is required. Various aspects of the use of Step 3 opioids (drug of first choice, role of active metabolites, opioid-poorly responsive pain, opioid switching, management of breakthrough pain) continue to excite debate. These topics will be considered in the updating of the EAPC opioid guidelines, part of the EPCRC programme. Cancer pain continues to be a major public health problem worldwide, affecting many millions of patients. Several international initiatives have recently been launched involving the WHO, IASP (International Association for the Study of Pain), and the EPCRC all of which are aimed at improving our management of cancer pain. The topic is very much on the scientific and political agendas.

**59 Oral Presentation**

Education and Epidemiology
Assessing the Effectiveness of International Palliative Care Education Interventions using Standardized Competence and Knowledge Evaluations

Authors: Frank Ferris Center for Palliative Studies San Diego Hospice & Palliative Care U. STATES
Mary Wheeler Capital Hospice Fairfax, VA U. STATES
Kathleen Foley Open Society Institute New York U. STATES
Background: Five international palliative care education interventions based on the Education for Physicians on End-of-Life Care (EPEC) and End-of-Life Nursing Education Consortium (ELNEC) curricula were evaluated to assess their impact on participants’ knowledge and competence. Two courses consisted of one week of classroom teaching. Three courses included one week of classroom teaching followed by two weeks of bedside mentorship. Methods: All courses were evaluated using the same standardized measures of self-perceived competence and objective tests of clinical knowledge developed to assess medical students, residents and faculty in the United States (US). Participants completed evaluations before (pre) and after (post) each course. After each course, participants also reassessed their pre-course competence (post-before). Individual courses and groupings of similar-length courses, and the impact of course repetition were compared. Using t-test and ANOVA. Results: Pre, perceived competence scores averaged 2.57 – 2.74 (95% confidence intervals). Post-before scores dropped to 2.10 – 2.28 (slightly lower than US Post-Graduate Year 1 medical residents (PGY 1)). Post scores of 3.22 – 3.37 were significantly higher than pre, and comparable to US PGY 3 residents. Knowledge improved significantly (P<.001) after all courses. Three-week course participants attained the same scores as US PGY 3 residents (65% increase in correct responses), significantly more than the 30% improvement seen in the 1-week courses. Course repetitions performed at or above the levels attained by US faculty. The greatest improvements and the greatest knowledge retention for repeat participants were in physical domains, particularly pain. Conclusions: Three-week bedside-training courses are recommended over 1-week classroom-based courses as they show significant improvement in participants’ perceived competence and knowledge.

60 Oral Presentation

Education and Epidemiology

How cancer patients die in Italian hospitals. Results from the Italian survey of the dying of cancer (ISDOC)

Authors: Monica Beccaro Regional Palliative Care Network National Cancer Institute ITALY
Massimo Costantini National Cancer Institute Genoa ITALY
Augusto Caraceni National Cancer Institute Milan ITALY

Background: Few data about quality of end-of-life care provided to patients dying in hospital are available. This study aimed at analysing the quality of care provided to Italian cancer patients and their families, during the last hospital admission. Methods: ISDOC is mortality follow-back survey of 2,000 cancer deaths representative of the whole country. Information on patients’ experience was gathered from the non-professional caregiver with an interview, performed 4–12 months after the patient’s death. A specific section of the interview covered information about care received by the patient and the family during the last hospital admission. Results: Overall, we obtained 1,271 valid interviews (67%) from identified caregivers. This analysis was based on 364 interviews (84%) of the sub sample of patients deceased in hospital. During their last hospital admission, all patients experienced one or more physical symptom (about 90% one or more distressing symptom). Eighty-one experienced pain (62% a distressing pain). Most patients (96%) received a treatment for pain, but the symptom was controlled only in 55% of the cases. A high proportion of patients (70%) and a low proportion of caregivers (26%) did not receive adequate information to choose treatments. Moreover, 30% caregivers were not informed about the imminent death, although at least two third would have liked to be informed. After the patient’s death, 81% families had not the opportunity to discuss with a health professional (31% would have liked to). Overall, only 27% caregivers were not satisfied with the received hospital care (23% caregivers were not satisfied with physicians and 24% with nurses). Conclusions: Needs of cancer patients dying in hospital are not adequately met, both in terms of symptom control and of information among professionals, patients and caregivers. These results highlight the low expectations of patients and their families about the response to these needs that the Italian National Health Service, is now required to give.

61 Oral Presentation

Education and Epidemiology

Narrative of success and failure. A study to explore the factors promoting or inhibiting the incorporation of palliative medicine teaching into the undergraduate curricula in the UK

Authors: Jane Gibbins Department of Palliative Medicine University of Bristol UNITED KINGDOM
Karen Forbes Department of Palliative Medicine Bristol UNITED KINGDOM
Jane Maher Mount Vernon Hospital London UNITED KINGDOM

Background: Despite recommendations about incorporating palliative medicine into curricula for medical students in the UK, many schools have little palliative care input. There is a paucity of literature on this subject. The aim of the study is to establish the factors promoting or inhibiting the incorporation of palliative medicine teaching into the undergraduate medical curricula. Methods: Lead educators of undergraduate palliative medicine teaching programmes were interviewed using a topic guide. A purposive sample was employed to encompass known successful educators but also those who have experienced difficulties incorporating palliative medicine teaching into their undergraduate curriculum. Interviews have been transcribed and the principles of the grounded theory approach are being used to analyse the data. A constant comparative method has been used to generate themes. Narratives will be used to illustrate these themes and to represent individual, important or significant experiences outside of these themes. Results: Thirteen interviews have been completed and are currently being analysed. Preliminary results show there are several factors that effect whether palliative care is incorporated into undergraduate teaching programmes. These include individual, institutional (university), financial, research/academic and student factors and course design and aims, national documents, patient group characteristics and availability of local palliative care teams. Conclusions: This is a novel study of lead undergraduate palliative medicine educators in the UK, which has qualitatively explored the factors that have helped or hindered such programmes taking place. These factors will be discussed. We aim to develop a series of recommendations for successfully incorporating palliative medicine education into undergraduate medical curricula to improve education for future doctors.
troubled by uncertainty about the adequacy of their caregiving. However, patients gave examples both of carer behaviours that promoted self-management and conversely of those that were experienced as disabling. This paper critiques the patient focus of most intervention that aims to support self-management. Drawing on the example of people with advanced cancer managing eating difficulties, it argues that self-management might best be facilitated using a family focused approach to supportive cancer care.


63 Oral Presentation

Education and Epidemiology

Predictors of palliative care program enrollment in Nova Scotia, Canada using new analytic methods for improved application and understanding

Authors: Grace Johnston School of Health Services Administration Dalhousie University CANADA
Beverley Lawson Dalhousie University Halifax, Nova Scotia CANADA
Jun Gao Cancer Care Nova Scotia Halifax, Nova Scotia CANADA
Ruth Lavergne Dalhousie University Halifax, Nova Scotia CANADA
Frederick Burge Dalhousie University Halifax, Nova Scotia CANADA
Paul McIntyre Capital Health Halifax, Nova Scotia CANADA
Eva Grunfeld Cancer Care Nova Scotia Halifax, Nova Scotia CANADA

Background: Our previous research using multiple logistic regression identified older age, short time between cancer diagnosis to death, and distance to the palliative care program (PCP) as being associated with lower PCP enrollment rates. Using new analytic methods, additional variables, a second district, and updated years of data, we improved the conceptualization and understanding of predictors and are better able to translate research into practice.

Methods: Multiple logistic regression, hierarchical modeling, and classification and regression tree (CART) were used to identify subpopulations with lower PCP enrollment in a retrospective population based linked administrative records analysis of 4137 adults who died of cancer from 2000 to 2003 in two largely urban districts in a Canadian province.

Results: PCP enrollment rates continued to improve: from 61% in 1996 to 81.6% in 2000 to 2003 in one district, and from 46.5% in 1994 to 74% in 2003 in the other. Primary CART findings were that PCP enrollment for persons dying within 12 days of death differed between the districts (27% vs 47%), and were lower than for those who survived longer (78%). Nursing home residents >80 years had lower PCP enrollment rates (32%) than younger nursing homes residents (75%), or non-residents (80%). The hierarchical regression model included additional variables and showed, for example, that persons with >32 days in hospital in the last 6 months of life had higher PCP enrollment (AOR 1.7; 95% CI 1.4, 2.3). Oncology care and increasing Charlsen with >32 days in hospital in the last 6 months of life had higher PCP enrollment rates. Using new analytic methods, additional variables, a second district, and updated years of data, we improved the conceptualization and understanding of predictors and are better able to translate research into practice.

Conclusions: Results indicate that DL reduces barriers in education. Challenges for the course organizers include securing funding and the development of adequate and useful content. Challenges for the students include securing access to a computer and the internet. Other organizations and teaching institutions should also look into different alternative methods to improve palliative care education in Latin America as an effective way to improve basic knowledge.

65 Oral Presentation

Other symptoms

A systematic review and meta-analysis of the drug management of cancer-related fatigue (CRF)

Authors: Ollie Minton Division of Mental Health St George’s University of London UNITED KINGDOM
Paddy Stone St Georges University of London London UNITED KINGDOM
Alison Richardson Florence Nightingale school of nursing Kings college London London UNITED KINGDOM
Michael Sharpe School of molecular & clinical medicine University of Edinburgh Edinburgh UNITED KINGDOM
Matthew Hotopf Department of psychological medicine; Institute of psychiatry London UNITED KINGDOM

Background: Fatigue is one of the most common symptoms experienced by cancer patients. Cancer-related fatigue (CRF) is a complex condition with many physical and psychological components. Studies have examined the role of certain drugs to alleviate CRF. However there is no universally agreed evidence-based drug management for CRF. We therefore decided to undertake a systematic review to appraise and synthesise the current evidence.

Methods: This review used Cochrane review methodology. We searched the Cochrane register of controlled trials (2nd Quarter 2007), Medline (1966 to August 2007) and EMBASE (1980 to August 2007) using a pre-determined list of search terms. In addition we hand searched a number of cancer journals and identified relevant conference abstracts.

Results: The review identified 27 trials. A combined meta-analysis of two studies demonstrated that methylphenidate (a psychostimulant) was superior to
placebo (SMD = 0.30 P = 0.02) for CRF although the combined sample size was small. Several studies investigated the role of erythromycin in anaemic cancer patients undergoing chemotherapy. A combined meta-analysis demonstrated superiority over placebo (SMD = -0.30 P=0.008) for the treatment of CRF. There was also an improvement in fatigue over placebo for anaemic patients treated with darboepoetin (SMD = -0.13 P=0.05). Prostaglandins and paroxetine were no better than placebo.

Conclusions: CRF is a significant clinical problem for patients with cancer. This review highlighted a variety of drug treatments available to treat CRF. Although not without side-effects we found evidence that methylphenidate is effective at treating CRF. There need to be further studies conducted with methylphenidate to confirm its role and it is the best candidate to be examined in a large scale RCT. Erythromycin and darboepoetin have evidence for their use in anaemic cancer patients undergoing chemotherapy but any use outside of this indication would need to be examined in further clinical trials. Funded-NCRI grant.

66 Oral Presentation

Other symptoms Impact of a palliative care Interdisciplinary team (IDT) on symptom distress in advanced cancer patients seen at an outpatient palliative care clinic (OPC) in a tertiary cancer center Authors: Sriram Yennurajalingam Palliative care and rehabilitation medicine MD Anderson Cancer center U. STATES Katie Busby The University of Texas M. D. Anderson Cancer Center Houston U. STATES Valerie Pouliot The University of Texas M. D. Anderson Cancer Center Houston U. STATES Ray Checco The University of Texas M. D. Anderson Cancer Center Houston U. STATES Diana Urbauer The University of Texas M. D. Anderson Cancer Center Houston U. STATES Eduardo Bruera The University of Texas M. D. Anderson Cancer Center Houston U. STATES

Background: Advanced cancer patients develop severe physical and psychosocial symptoms. There is limited data on the impact of outpatient interdisciplinary (IDT) palliative care team on symptom distress in these patents. Methods: 406 consecutive patients with advanced cancer presenting in the OPC from Jan, 2006 to Jan, 2007 with a complete Edmonton outpatient palliative care clinic. Significant symptom improvement in patients receiving treatment in the OPC from Jan, 2006 to Jan, 2007 with a complete Edmonton outpatient palliative care clinic.

Results: Of the 152 patients completing DB treatment, 147 entered the 1-mo OL phase; 27 entered the 3-mo extension phase. The median methylsalatrexone dosing interval was 3 days. Rescue-free laxation occurred in 55.9% of patients by 4 hours after the first OL dose; mean 4-hour response rate was 54.6% across the DB and 4-mo OL phases. Patient and clinician GCI scores were somewhat, slightly or much better in 66.7% and 72.4% of patients, respectively, at end of 1 mo. Three patients had 5 SAEs reported as treatment related during OL (flushing, delirium, severe diarrhea with dehydration and cardiovascular collapse). In methylnaltrexone-treated patients across all phases, the most common AEs were malignant neoplasm progression, abdominal pain, nausea and vomiting. Conclusions: SC methylnaltrexone PRN continued to induce laxation for up to 4 months and was generally well tolerated in patients with advanced illness and OIC.

68 Oral Presentation

Other symptoms Do symptom clusters differ by cancer primary site? Authors: Jordanka Kikvra The Harry R. Horvitz Center for Palliative Medicine Cleveland Clinic U. STATES Declan Walsh The Harry R. Horvitz Center for Palliative Medicine, Cleveland Clinic Cleveland U. STATES Lisa Rybicki Quantitative Health Sciences Cleveland U. STATES Sinead Donnelly The Harry R. Horvitz Center For Palliative Medicine Cleveland U. STATES


67 Oral Presentation

Other symptoms Methylsalatrexone in the Treatment of Opioid-Induced Constipation in Patients with Advanced Illness: Open-label Results Authors: Neal Sluskin Department of Supportive Care City of Hope National Medical Center U. STATES

Background: Methylsalatrexone, a peripherally-acting mu-opioid receptor antagonist, has been shown in placebo-controlled trials to induce laxation in advanced illness patients with opioid-induced constipation (OIC). A single-dose double-blind (DB) study evaluated methylnaltrexone in advanced illness patients with OIC; we report results of an open-label (OL) extension to evaluate methylsalatrexone PRN for up to 4 months (mo). Methods: Advanced illness patients with a life expectancy of 1–6 mo and OIC who completed the DB phase of Study 301 were eligible for a 1-mo OL phase, during which they received SC methylnaltrexone PRN up to q24 hours. The initial dose was 0.15 mg/kg; subsequent doses could be adjusted to 0.075 or 0.30 mg/kg based on efficacy or tolerability. Study completers were eligible to enter an additional 3-mo OL extension phase. Assessments included laxation response, Global Clinical Improvement of Change (GCIC), and adverse events (AEs). Summary statistics were used to describe dose and duration of treatment and changes in scale scores. Results: Of the 152 patients completing DB treatment, 147 entered the 1-mo OL phase; 27 entered the 3-mo OL extension phase. The median methylnaltrexone dosing interval was 3 days. Rescue-free laxation occurred in 55.9% of patients by 4 hours after the first OL dose; mean 4-hour response rate was 54.6% across the DB and 4-mo OL phases. Patient and clinician GCIC scores were somewhat, slightly or much better in 66.7% and 72.4% of patients, respectively, at end of 1 mo. Three patients had 5 SAEs reported as treatment related during OL (flushing, delirium, severe diarrhea with dehydration and cardiovascular collapse). In methylnaltrexone-treated patients across all phases, the most common AEs were malignant neoplasm progression, abdominal pain, nausea and vomiting. Conclusions: SC methylnaltrexone PRN continued to induce laxation for up to 4 months and was generally well tolerated in patients with advanced illness and OIC.
Head&Neck and Pancreas cancer, incomplete in the rest PSG. 4. UGC incomplete in all; absent in Pancreas cancer. 5. ADC incomplete in all; absent in Kidney and Pancreas cancer. DC and PC symptoms varied, except for DC complete in Colorectal and Pancreas cancer. Anxiety/depression; anorexia/early satiety; dyspnea/cough; nausea/vomiting; fatigue/lack of energy; belching/bloating consistently clustered. Conclusions: NVC was universal, DC complete in 2/7 PSG, NPC in Lung cancer. Primary site determined specific clusters, did not predict general cancer clusters, except for NVC, DC, and NPC.

69 Oral Presentation

Other symptoms

“Now that you mention it doctor…” – Symptom reporting and the need for systematic questioning

Presenting author: Damien McMullan
Authors: Clare White Palliative Medicine Northern Ireland Hospice Care Belfast UNITED KINGDOM
Julie Doyle Northern Ireland Hospice Care Belfast UNITED KINGDOM
Damien McMullan Northern Ireland Hospice Care Belfast UNITED KINGDOM
Barbara Cochrane Northern Ireland Hospice Care Belfast UNITED KINGDOM

Background: Palliative care patients may experience a wide variety of symptoms. Some may be self-reported and some are only detected on systematic questioning (SQ). This review aims to determine the symptoms experienced by patients admitted to a specialist palliative care unit (SPCU), which of these are self-reported (SR) and which are only detected with the use of SQ. Methods: A retrospective review was performed of the charts of 50 randomly selected patients who were admitted to a SPCU over a 2 year period. The standard admission proforma was reviewed to determine which symptoms were present on admission, which were SR and which were only detected upon SQ. Results: All 50 charts were included. 48 patients had advanced malignancy and 2 had advanced non-malignant disease. An average of 12.6 symptoms were experienced (SR+SQ) per patient on admission (range 5–21). 42 different symptoms were SR, with an average of 4.1 per patient (range 0 to 10). The most common SR symptoms were pain (72%), bowel disturbance (32%), nausea or vomiting (30%), mobility problems (30%), loss of appetite (24%) and low mood (22%). On SQ of 38 common symptoms, there was an average of 8.5 further symptoms per patient detected (range 1 to 18). The most common symptoms detected on SQ that were not SR were weight loss (66%), fatigue (56%), loss of appetite (48%), mobility problems (42%), oedema/lymphoedema (36%), oral symptoms (36%), confusion/memory loss (36%), sleep problems (36%), bowel disturbance (34%), drowsiness (32%), low mood (28%), and anxiety (26%).

Conclusions: Patients appear to have many symptoms which are not SR on admission to a SPCU. Therefore plays a vital role in the detection of symptoms that may require further assessment or treatment. We speculate that under-reporting of symptoms may occur for several reasons e.g. if the patient does not consider these problematic or perceives them as unimportant to the medical team. More research is needed to further explore what symptoms are not SR and reasons for this.

70 Oral Presentation

Other symptoms

Psychostimulants for depression: a Cochrane systematic review

Authors: Bridget Candy Department of Mental Health Sciences, Royal Free and University College Medical School UNITED KINGDOM
Louise Jones Royal Free and UCL Medical Scool London UNITED KINGDOM
Rachael Williams Royal Free and UCL Medical Scool London UNITED KINGDOM

There are problems in the current first-line drug treatment, antidepressants particularly in time to effect. There is little evidence to inform treatment of those who do not respond and those, such as patients in palliative care, who would benefit from a faster response. There is a body of research that has evaluated the effect of psycho-stimulants (PS) in the treatment of depression. This has not been reviewed systematically. Methods: Aim: To determine the effectiveness of PS in the treatment of depression. Eight citation databases, including MEDLINE, and EMBASE were searched. Only randomised controlled trials (RCTs) were included. Meta-analysis was considered for trials with comparable characteristics. Results: Twenty-four RCTs were identified. The overall quality was poor. Five PS were evaluated: dexamphetamine, methylphenidate, methylamphetamine, modafinil and pemoline. PS were administered as a monotherapy, adjunct therapy, in oral or intravenous preparation and in comparison with a placebo or an active therapy. Effects were measured up to 24 weeks. The largest meta-analyses involved seven trials totalling 605 participants, it demonstrated that, in comparison with a placebo, PS significantly reduced depressive symptoms (Standardised Mean Difference –0.22, 95% Confidence Interval –0.38, –0.06). Pooled evidence also demonstrated that PS significantly improved daytime sleepiness, a symptom associated with depression. The overall effect was greater in patients who had serious comitant medical illnesses. PS were acceptable to patients and well tolerated. Conclusions: There is evidence that PS reduce symptoms of depression. Whilst these reductions are statistically significant, their clinical significance is less clear. Larger high quality trials involving longer follow-ups are needed to explore which PS are more beneficial, in which clinical situations they are optimal, and to evaluate further adverse events.

71 Invited Lecture

Subjective outcomes in palliative care research and their analysis – The role of patient reported outcomes in clinical research – EMEA and FDA Guideline documents

Authors: Giovanni Apolone Lab. Traslational Research & Outcome in Oncology Istituto Mario Negri, ITALY

Ratings and reporting from patients are often used in clinical practice and research to evaluate the effect of a given intervention (for example, a drug) on relevant aspects of health, life or health care, such as pain, physical limitations or other symptoms, self-perceived health status, quality of life, satisfaction with care, etc. These measures, sometimes named with the term of “subjective outcomes” or “soft endpoints”, are most of the times implemented through self-reported questionnaires and may be used in clinical trials as primary or secondary endpoints. Pharmas extensively use PRO measures. A recent evaluation and preliminary analysis of the European Public Assessment Report (EPAR) has shown that in at least 25% of the EPAR reports there is a claim about Health-Related-Quality of Life, mostly in cancer-related products. Although the large utilization, their value are questioned for the difficulty to document their validity, reliability and responsiveness and for the complexity of their implementation in the studies. In addition, most of the times it is not easy to assess the added value of their utilization when compared to the classical clinical outcomes. Of course, in some clinical situations where the patients’ perspective is the most relevant or unique point-of-view, the trade-off of pros (increase in the amount of relevant information about disease, health status and satisfaction) and cons (conceputal, methodological and logistical problems) is different. All these measures have been recently grouped under the term of PRO (patient-reported outcomes) and both FDA and EMEA have produced and diffused guidance documents to optimize their utilization in clinical studies designed for registrative purposes. An analysis of the objectives, contents and recommendations of both documents can help better understand the potential value of these measures in palliative care and increase the quality of clinical studies in this setting.
72 Invited Lecture

Subjective outcomes in palliative care research and their analysis
Analitical and interpretation issues in evaluating analgesic treatment outcomes

Authors: Cinzia Brunelli Istituto Nazionale Dei Tumori/c/o Rehabilitation and Palliative Care Unit ITALY

The interpretation of the clinical relevance of treatment outcomes in analgesic trials is an interesting and up to date topic in chronic pain research. Outcome measures in analgesic trials are mainly constituted by repeated measurement on one ore more (often numeric) pain intensity scales, and are often summarized by a change in mean values, then compared between treatment groups (central tendency analysis). An alternative method is constituted by the so called “response analysis” which is based on the determination of the proportion of patients who reported a clinically important improvement in their pain condition. Although the central tendency analysis remains the preferred method for drug development purposes, the response analysis can provide more interpretable results both for clinicians and patients. Clearly response analysis requires the definition of the responders, i.e. of the degree of change over time that can be considered clinically relevant. Currently no agreement has been reached on which is the “best” definition, probably because none of the proposed definition will accurately reflect the full nature of any data. Various examples of response definitions and of their pros and cons will be presented and the possibility to integrate data multidimensionality due to repeated measurements into the response definition, will also be examined. As the problem with the response analysis is that different choices of the response definition can lead to different conclusions from the same data, a novel graphical technique (cumulative proportion of responders analysis) that allows the presentation of the proportion of responders over the entire range of possible response definitions, will be shown. The response analysis constitutes a useful and effective method of data analysis but as all techniques that do not use raw data, it requires that the choice of the most appropriate primary response definition is described a priori in the protocol and analysis plan an that sensitivity analyses are conducted to support conclusions drawn from the primary analysis.

73 Invited Lecture

Subjective outcomes in palliative care research and their analysis
Propensity scores a new way to handle randomization bias

Authors: R. Sean Morrison Geriatrics Mount Sinai School of Medicine U. STATES

Palliative care research is often limited to observational studies and quasi-experimental designs due to recruitment and implementation challenges of prospective, randomized controlled trials (RCT). The major threat to internal validity in observational studies is that patient assignment to the intervention is not under investigators’ control and observed differences in outcomes may be caused by the intervention, by differences in the measured and unmeasured confounders, or both. Propensity scores (PS) are a new statistical method to control for confounding in observational studies and of their pros and cons will be presented and the possibility to integrate data multidimensionality due to repeated measurements into the response definition, will also be examined. As the problem with the response analysis is that different choices of the response definition can lead to different conclusions from the same data, a novel graphical technique (cumulative proportion of responders analysis) that allows the presentation of the proportion of responders over the entire range of possible response definitions, will be shown. The response analysis constitutes a useful and effective method of data analysis but as all techniques that do not use raw data, it requires that the choice of the most appropriate primary response definition is described a priori in the protocol and analysis plan an that sensitivity analyses are conducted to support conclusions drawn from the primary analysis.

74 Invited Lecture

Subjective outcomes in palliative care research and their analysis
The problems of missing data

Authors: Peter Fayers University of Aberdeen Medical School Department of Public Health UNITED KINGDOM

When Health Related Quality of Life (HRQOL) or other patient reported outcomes are being assessed in a clinical trial, it is frequent for a number of assessment forms to be missing. This raises concerns about the validity of any analyses of HRQOL outcomes, as how can we rule out the possibility of bias? Could it be that data is most commonly missing for patients who have a poor HRQOL, perhaps because they are so ill and fatigued that they simply do not have the energy to complete questionnaires? This brief presentation will discuss the implications of missing data, and will show how analysis and interpretation of the results are affected. Simple statistical analyses are frequently inadequate, and more complex methods may have to be used.

75 Oral Presentation

Ethics
Attitudes of Flemish secondary school students towards end-of-life decisions in minors

Authors: Geert Pousset End-of-life care research group Ghent University BELGIUM
Johan Bilsen End-of-life Care Research Group, Vrije Universiteit Brussel Brussels BELGIUM
Joke Dewilde Department of Special Education, Ghent University College Ghent BELGIUM
Luc Deliens End-of-life Care Research Group, Vrije Universiteit Brussel Brussels BELGIUM
Freddy Mortier Bioethics Institute, Ghent University Ghent BELGIUM

Background: In Belgium, inequalities exist in minors’ and adults’ rights to end-of-life decision-making. The study aimed to investigate the attitudes of secondary school students towards acceptability of a request by minors of end-of-life decisions with a possible or certain life-shortening effect (ELDs): non-treatment decisions (NTD), potentially life-shortening alleviation of pain and symptoms (APS) and euthanasia. Methods: Second and fourth-grade students, aged 12 to 16, of 20 Flemish secondary schools, were randomly selected. They completed a questionnaire, assessing their attitudes towards acceptability of requests for ELDs in 6 cases involving minor patients. All six cases included an explicit request for an ELD by a 14 year old patient suffering from chronic disease. Type of suffering (pain, loss of dignity or deterioration of capacities), prognosis (terminal – not terminal) and nature of painfulness (reversible – irreversable) varied between cases. In a sixth case, participants were asked about right and willingness to get informed about terminal prognosis. Results: 1769 secondary school students participated (53% female). Acceptance was highest for NTD-request, varying from 60% (not terminal, reversible pain) to 69% (terminal, irreversible pain). APS-request was acceptable for 49% (not terminal, irreversible pain) to 59% (terminal, irreversible pain) of participants. Acceptance of euthanasia-requests varied from 17% (not terminal, irreversible pain) to 37% (not terminal, reversible pain) to 60% (terminal, irreversible pain). Acceptance of ELD-request was lowest when type of suffering concerned deterioration of capacities (32%). 78% of participants would like to be informed about terminal prognosis, while 90% think a
minor patient has the right to know the prognosis. **Conclusions:** Secondary school students find NTD and APS-requests by minors more acceptable than euthanasia. Acceptability of ELD-requests varies with case characteristics, with greater support in terminal situations with irreversible pain.

### 76 Oral Presentation

#### Ethics

**Reporting of euthanasia and labeling of end-of-life practices: a study of hypothetical cases**

**Authors:** Hilde Buiting Department of Public Health Erasmus Medical Center NETHERLANDS Hans van Delden University Medical Center Utrecht, Julius Center for Health Sciences Utrecht NETHERLANDS Paul van der Maas Erasmus MC, Department of Public Health Rotterdam NETHERLANDS Bregje Onwuteaka-Philipsen Vrije Universiteit Medical Center Amsterdam NETHERLANDS Agnes van der Heide Erasmus MC, Department of Public Health Rotterdam NETHERLANDS Judith Rietjens Erasmus MC, Department of Public Health Rotterdam NETHERLANDS

**Background:** In the Netherlands, euthanasia is defined as the deliberate ending of life at the patient’s request. Physicians are required to report euthanasia to judicial authorities in order to increase transparency and public control. However, distinguishing between euthanasia and alleviation of symptoms with hastening of death as a potential side effect, is sometimes difficult. We examined which characteristics are associated with physicians’ willingness to report and the factors that contribute to physicians’ labeling as euthanasia or ending of life. **Methods:** Design Random stratified sample of physicians (n=2100, response: 56%) Methods Physicians received a questionnaire that randomly presented three cases out of 47 and varied according to (1) type of medication, (2) physician’s intention, (3) the kind of patient request, (4) patient’s life expectancy and (4) the time until death. They were asked whether they would report this death and which kind of patient request, (4) patient’s life expectancy and (4) the time until death.**Results:** Most physicians are willing to report cases that they labeled as euthanasia or ending of life. The factors that contributed most to physicians’ labeling as euthanasia or ending of life were the administration of muscle relaxants or barbiturates; opioids were used in 15%. Of all cases of euthanasia and assisted suicide in 2005, 80% were reported to the review committees. Reporting was strongly related to whether or not physicians themselves labeled their act as euthanasia or assisted suicide, which was rarely the case when opioids were used. **Conclusions:** The Dutch euthanasia act was followed by a modest decrease in the rates of euthanasia and physician-assisted suicide. The decrease may have resulted from increased application of other end-of-life care interventions, such as palliative sedation, and a general tendency in the medical profession to attribute opioids less life-shortening potential.

### 77 Oral Presentation

#### Ethics

**End-of-life practices in the Netherlands under the euthanasia act**

**Authors:** Agnes van der Heide Public Health Erasmus MC, University Medical Center Rotterdam NETHERLANDS Judith Rietjens Erasmus MC Rotterdam NETHERLANDS Cornelis Prins Statistics Netherlands Voorburg NETHERLANDS Johanna Hanssen-de Wolf VU Medical Center Amsterdam NETHERLANDS Bregje Onwuteaka-Philipsen VU Medical Center Amsterdam NETHERLANDS Hilde Buiting Erasmus MC Rotterdam NETHERLANDS Paul van der Maas Erasmus MC Rotterdam NETHERLANDS

**Background:** In 2002, an act regulating the ending of life by physicians at the request of a seriously suffering patient came into effect in The Netherlands. In 2005, we performed a follow-up study of the practice of euthanasia, physician-assisted suicide and other end-of-life decisions. **Methods:** We mailed questionnaires to physicians attending 6860 deaths that were identified from death certificates. The response rate was 78%. **Results:** In 2005, 1.68% of all deaths in the Netherlands were the result of euthanasia, and 0.08% of assisted suicide. These percentages were significantly (p<0.05) lower as compared to 2001, when 2.56% of all deaths resulted from euthanasia and 0.21% from assisted suicide. Of all deaths, 0.40% were the result of the ending of life without an explicit patient request. Deep sedation in conjunction with possible hastening of death was used in 7.12% of all deaths, which is a significant increase from 5.61% in 2001. In 69% of all cases of euthanasia and assisted suicide, life was ended with neuromuscular relaxants or barbiturates; opioids were used in 15%. Of all cases of euthanasia and assisted suicide in 2005, 80% were reported to the review committees. Reporting was strongly related to whether or not physicians themselves labeled their act as euthanasia or assisted suicide, which is rarely the case when opioids were used.

**Conclusions:**

1. **Euthanasia:** Covered 95% of all deaths. In 2001, 2.56% of all deaths resulted from euthanasia compared to 1.58% in 2005. Reporting was strongly related to whether or not physicians themselves labeled their act as euthanasia or assisted suicide, which was rarely the case when opioids were used.
2. **Physician-assisted suicide:** Covered 1.68% of all deaths. In 2001, 0.21% of all deaths resulted from physician-assisted suicide compared to 0.08% in 2005. Reporting was strongly related to whether or not physicians themselves labeled their act as euthanasia or assisted suicide, which was rarely the case when opioids were used.
3. **Other end-of-life decisions:** Covered 1.68% of all deaths. These included the use of deep sedation in conjunction with possible hastening of death, which is a significant increase from 5.61% in 2001. In 69% of all cases of euthanasia and assisted suicide, life was ended with neuromuscular relaxants or barbiturates; opioids were used in 15%. Of all cases of euthanasia and assisted suicide in 2005, 80% were reported to the review committees.

**Confronting death – what influences the kind of medical action in end of life situations?**

**Authors:** H. Christof Müller-Busch Anesthesiology, Palliative Medicine and Pain Therapy, GK Havelhöhe Berlin GERMANY Roswitha Beckmann Dep. of Anesthesiology, Pain Therapy and Palliative Medicine, GK Havelhöhe Berlin GERMANY Thomas Jehser Dep. of Anesthesiology, Pain Therapy and Palliative Medicine, GK Havelhöhe Berlin GERMANY Tuir Müller Dep. of Anesthesiology, Pain Therapy and Palliative Medicine, GK Havelhöhe Berlin GERMANY

**Background:** Enabling death by withholding or withdrawing potentially life prolonging treatment is one of the most controversial issues in end of life care. Nevertheless the kind of dying and the time of death depends on decision making to limit active treatment. Besides an evidenced based medical indication, individual cognition, personal experience and estimation of values are important for end of life decision making. The literature shows that there are not only great cultural differences but also professional and situative influences. The intention of this study was to classify different kinds of medical action in a palliative care unit (PCU) in the confrontation with death. **Methods:** The medical records of the last 100 patients dying under provision of palliative care in the palliative care unit (PCU) were compared with the last 100 patients dying under normal general hospital care (GHC). The palliative care patients were staged prospectively into five categories (rehabilitative, preterminal early, preterminal late, terminal and final).The kind of action undertaken in the last 48 hrs of their life were classified into 1. palliative, potentially life shortening by withdrawing or withholding, 2. potentially life prolonging activity – without evidence, 3. symbolic actions under consideration of the futile situation and 4. others. **Results:** Three kinds of medical action could be differentiated in end of life care of all the investigated patients: Activism, symbolic and limitation. In “normal” end of life care activism and symbolic kinds of action were found
more often. Staging in palliative seemed not to influence the kind of med-
ical action in the final 48 hrs. **Conclusions:** Decision making and kinds of 
action in end of life care differ not only culturally but also with 
professional expertise and are influenced by the final place of care. Further 
studies should be made comparing the kinds of medical action in different 
places of care e.g. home care, nursing home, ICU, PCU, general hospital.

**79 Oral Presentation**

**Ethics**

“Unbearable suffering and Euthanasia”: an integrative review

**Authors:** Marianne Dees General practice Radboud University 
Medical center NETHERLANDS

Chris van Weel Centre of Evidence Based Medicine Nijmegen NETHERLANDS

Myrrea Verhooij-Dassen Centre for Quality of Care Nijmegen NETHERLANDS

**Background:** Unbearable suffering is a necessary but unclear condition within 
in the context of a request for EAS (Euthanasia or physician Assisted Suicide). 
Insight in the concept unbearable suffering is important in the ongoing debate 
regarding transparency and conditions on which EAS may be performed.

**Methods:** The electronic databases of PUBMED, EMBASE, CINAHL, Web 
of Science, and PSYCH INFO, were searched for English and Dutch-
language articles published between January 1, 1980, and June 30, 2007. In 
addition the Dutch medical literature was searched using the library database 
of the Royal Dutch Medical Association starting from 1990. Reference lists of 
selected articles were checked for missing articles. Key palliative care books 
and experts authors on the field were reviewed. Two independent reviewers 
selected studies for inclusion if there was a description of constituent elements 
of suffering of patients in the context of a request for EAS or a definition of 
suffering of patients. Data display matrixes were used and were iteratively 
compared to derive a descriptive model of unbearable suffering in the context 
of a request for EAS. **Results:** Of the 54 studies that met the eligible criteria, 
10 regarded patients with a concrete request for EAS; 8 regarded family mem-
bers of patients who’s request was granted; 18 regarded professional care-
givers of patients who’s request was granted and 18 regarded definitions of 
suffering of patients. “Unbearable suffering” in the context of a request for 
EAS is used to describe many elements. Six distinct elements were uncov-
ered; (1) loss; (2) fear; (3) existence and meaning; (4) physical symptoms; 
(5) social conditions and (6) psychiatric symptoms. **Conclusions:** Results of 
this analysis indicates that “unbearable suffering” in the context of EAS is a 
complex, individual, subjective and multidimensional experience.

**80 Oral Presentation**

**Ethics**

The interaction between world view and attitudes toward 
euthanasia: analysis of the views of Flemish palliative care 
nurses and physicians

**Authors:** Bert Broekaert ICRIDK.U.Leuven BELGIUM

Trudie Van Iersel K.U.Leuven Leuven BELGIUM

Joris Gieelen K.U.Leuven Leuven BELGIUM

Stef Van den Branden K.U.Leuven Leuven BELGIUM

**Background:** Several studies indicate that religion and world view influence 
the attitudes of medical professionals towards end-of-life issues. However, 
most available studies fail to measure different religious dimensions and are 
not sufficiently aware of the religious and ideological plurality of contempor-
ary European society. In 2006 we undertook a quantitative study of the atti-
itudes and practices regarding religion and world view of Flemish palliative 
care nurses and physicians, and their attitudes towards euthanasia. **Methods:** 
An anonymous questionnaire was sent to all physicians (147) and nurses 
(589) employed in palliative care in Flanders (Belgium). The questionnaire 
contained a demographic part, a part with questions regarding religion and 
world view, and an attitudinal part, consisting of a long series of ethical state-
ments using a five-point Likert-scale. To divide physicians and nurses into dif-
ferent religio-ideological groups a latent class analysis was fitted with an 
EM-algorithm. A similar method was used to form euthanasia clusters. To find 
out whether there is a relationship between religio-ideological clusters and 
euthanasia clusters the multinomial logit model was used. **Results:** 70.5% of 
the nurses and 67.3% of the physicians responded. Five religio-ideological 
clusters were found: religious but not church-going respondents (15.3%), 
atheists/agnostics (13.4%), church-going respondents (24.3%), infrequently 
church-going respondents (25.1%), and doubters (23.8%). Three euthanasia 
clusters were found: (moderate) opponents of euthanasia (22.9%), moderate 
advocates of euthanasia (35.3%), and staunch advocates of euthanasia 
(41.9%). The relationship between religio-ideological clusters and euthanasia 
clusters was statistically significant also when the covariates gender, age and 
years of experience in palliative care were taken into consideration.

**Conclusions:** Religion and world view have a clear and profound influence 
on attitudes toward Euthanasia. Funding: Research Foundation Flanders.
Formal criteria for evaluating observational evidence are needed. Evidence gaps exist comparing opioids (efficacy, adverse effects, pain syndromes). Reviews evaluate cancer or neuropathic pain and opioid or adjuvant analgesics. Systematic reviews from the Cochrane Collaboration. Selected design, pain definition and evaluation, short study duration, lack of pain endpoint. Systematic reviews are hampered by heterogeneity of trial design, single and multiple fraction radiotherapy schedules are effective for painful bony metastases. Bisphosphonates, radiotherapy and radioisotopes are effective for painful bony metastases. Few RCTs have been performed in neuropathic cancer pain. Bisphosphonates, radiotherapy and radioisotopes are effective for painful bony metastases. Strategies to improve RCT evidence in palliative medicine are needed. Formal criteria for evaluating observational evidence are needed.

83 Oral Presentation

84 Oral Presentation

Pain 1

85 Oral Presentation

Trends in the use of opioids at the end of life and the expected effects on hastening death

Authors: Mette Rurup Department of Public and Occupational Health VU University Medical Center NETHERLANDS

Bregie D Onwuteaka-Philipsen VU University Medical Center, EMGO institute. Department of Public and Occupational Health Amsterdam NETHERLANDS

Agnes van der Heide Erasmus MC, Department of Public Health Rotterdam NETHERLANDS

Sander D Borgsteede VU University Medical Center, Department Clinical Pharmacology and Pharmacy Amsterdam NETHERLANDS

Paul J van der Maas Erasmus MC, Department of Public Health Rotterdam NETHERLANDS

Background: Research aims: To study (trends in) opioid use and perceptions of having hastened the end of life of a patient. Methods: A death certificate study was done in the Netherlands in 2005 which was similar to studies done in 2001 and 1995. In 2005, a questionnaire was sent to 6860 physicians who had attended a death. Response rate: 78%. Results: Physicians in the Netherlands less often administered opioids with the intention to hasten death in 2005 (3.1% of the non-sudden deaths) than in 2001 and in 1995 (resp. 7% and 10% of the non-sudden deaths). Physicians gave similar dosages of opioids in each of the study years (79–82% gave less than 200 oral morphine equivalents when taking into account hastening the end of life in 1995, 2001 and 2005), but physicians in 2005 less often thought that life was actually shortened than in 2001 and 1995 (37% in 2005, 50% in 2001, 53% in 1995). Of the physicians in 2005 who did think the life of the patient was shortened by opioids (regardless of whether it was intended or merely taken into account), 94% did not give higher dosages than were in their own opinion required for pain- and symptom-management. Physicians in 2005 more often took hastening death into account when they gave higher dosages of opioids, when the patient experienced more severe symptoms and with female patients. In older patients (280 years) physicians took the hastening of death into account more often, but the actual dosages of opioids were lower. Conclusions: Physicians in 2005 less often thought that death was hastened by opioids and they less often gave opioids with the intention to hasten death than in 2001 and 1995. Main source of funding: ZonMW.

Pain 1

Effectiveness of Knowledge Translation Interventions to Improve Cancer Pain Management: A Systematic Review

Authors: Greta Cummings Faculty of Nursing University of Alberta CANADA

Susan Armijo-Olivo University of Alberta Edmonton CANADA

Patricia Biondo Tom Baker Cancer Center Calgary CANADA

Alison Connors University of Alberta Edmonton CANADA

Neil Hagen Tom Baker Cancer Center Board, University of Calgary Calgary CANADA

Lesa Chizawksy University of Alberta Edmonton CANADA

Robin Fainsinger University of Alberta Edmonton CANADA

Carla Stiles Tom Baker Cancer Center Calgary CANADA

Rashmi Dhaubhadel University of Alberta Edmonton CANADA

Background: Despite widespread interest in determining how to implement best practices in cancer care, no systematic reviews of implementation of knowledge transfer interventions for cancer pain management were found. The study purpose was to examine the research literature to determine the effectiveness of knowledge translation (KT) interventions for changing behavior, beliefs and knowledge in healthcare practitioners, patients and family, with the goal of improving clinical outcomes in cancer pain management. Methods: Extensive electronic database searches (e.g. MEDLINE, CINAHL, EMBASE, and others), along with manual and website searches, were performed. Studies that evaluated the effect of KT interventions on

 Genetic variation in the Catechol-O-Methyltransferase (COMT) gene and morphine requirements in cancer pain patients

Authors: Trude Rakvåg Faculty of medicine Cancer research and molecular medicine NORWAY

Stein Kaasa Norwegian University of Science and Technology and St. Olavs Hospital Trondheim NORWAY

Frank Skorpen Norwegian University of Science and Technology Trondheim NORWAY

Joy Ross St Joseph’s Hospice London UNITED KINGDOM

Hiroe Sato Imperial College London UNITED KINGDOM

Pål Klepstad Norwegian University of Science and Technology and St. Olav’s Hospital Trondheim NORWAY

Background: Genetic variation contributes to differences in pain sensitivity and response to different analgesics. Catecholamines are involved in the modulation of pain. Catecholamines are partly metabolized by the catechol-O-methyltransferase (COMT) enzyme. Therefore genetic variability in the COMT gene may contribute to differences in pain sensitivity and response to analgesics. It is shown that a polymorphism in the COMT gene, Rs4680 (Val158Met), influence pain sensitivity in human experimental pain and the efficacy for morphine in cancer pain treatment. In this study we wanted to investigate if variability in other regions in the COMT gene also contributes to interindividual variability in morphine efficacy. Methods: We genotyped 11 single nucleotide polymorphisms (SNPs) throughout the COMT gene, and constructed haplotypes from these 11 SNPs, which were in Hardy-Weinberg equilibrium. We compared both genotypes and haplotypes against pharmacological, demographical and patient symptoms measurements in a Caucasian cancer patient cohort (n=197) receiving oral morphine treatment for cancer pain. Results: Multivariate analyses showed that the most frequent haplotype (34.5 %) was associated with lower morphine dose requirements (p=0.005). Conclusions: This study suggests that genetic variability in the COMT gene contributes to the efficacy of morphine in cancer pain patients, and that increased understanding of this variability is reached by evolving from analyses of a single SNP with haplotype analyses.

84 Oral Presentation

Pain 1

Trends in the use of opioids at the end of life and the expected effects on hastening death

Authors: Mette Rurup Department of Public and Occupational Health VU University Medical Center NETHERLANDS

Bregie D Onwuteaka-Philipsen VU University Medical Center, EMGO institute. Department of Public and Occupational Health Amsterdam NETHERLANDS

Agnes van der Heide Erasmus MC, Department of Public Health Rotterdam NETHERLANDS

Sander D Borgsteede VU University Medical Center, Department Clinical Pharmacology and Pharmacy Amsterdam NETHERLANDS

Paul J van der Maas Erasmus MC, Department of Public Health Rotterdam NETHERLANDS

Background: Research aims: To study (trends in) opioid use and perceptions of having hastened the end of life of a patient. Methods: A death certificate study was done in the Netherlands in 2005 which was similar to studies done in 2001 and 1995. In 2005, a questionnaire was sent to 6860 physicians who had attended a death. Response rate: 78%. Results: Physicians in the Netherlands less often administered opioids with the intention to hasten death in 2005 (3.1% of the non-sudden deaths) than in 2001 and in 1995 (resp. 7% and 10% of the non-sudden deaths). Physicians gave similar dosages of opioids in each of the study years (79–82% gave less than 200 oral morphine equivalents when taking into account hastening the end of life in 1995, 2001 and 2005), but physicians in 2005 less often thought that life was actually shortened than in 2001 and 1995 (37% in 2005, 50% in 2001, 53% in 1995). Of the physicians in 2005 who did think the life of the patient was shortened by opioids (regardless of whether it was intended or merely taken into account), 94% did not give higher dosages than were in their own opinion required for pain– and symptom-management. Physicians in 2005 more often took hastening death into account when they gave higher dosages of opioids, when the patient experienced more severe symptoms and with female patients. In older patients (280 years) physicians took the hastening of death into account more often, but the actual dosages of opioids were lower. Conclusions: Physicians in 2005 less often thought that death was hastened by opioids and they less often gave opioids with the intention to hasten death than in 2001 and 1995. Main source of funding: ZonMW.

Pain 1

Effectiveness of Knowledge Translation Interventions to Improve Cancer Pain Management: A Systematic Review

Authors: Greta Cummings Faculty of Nursing University of Alberta CANADA

Susan Armijo-Olivo University of Alberta Edmonton CANADA

Patricia Biondo Tom Baker Cancer Center Calgary CANADA

Alison Connors University of Alberta Edmonton CANADA

Neil Hagen Tom Baker Cancer Center Board, University of Calgary Calgary CANADA

Lesa Chizawksy University of Alberta Edmonton CANADA

Robin Fainsinger University of Alberta Edmonton CANADA

Carla Stiles Tom Baker Cancer Center Calgary CANADA

Rashmi Dhaubhadel University of Alberta Edmonton CANADA

Background: Despite widespread interest in determining how to implement best practices in cancer care, no systematic reviews of implementation of knowledge transfer interventions for cancer pain management were found. The study purpose was to examine the research literature to determine the effectiveness of knowledge translation (KT) interventions for changing behavior, beliefs and knowledge in healthcare practitioners, patients and family, with the goal of improving clinical outcomes in cancer pain management. Methods: Extensive electronic database searches (e.g. MEDLINE, CINAHL, EMBASE, and others), along with manual and website searches, were performed. Studies that evaluated the effect of KT interventions on
patient or health provider behavior change or knowledge uptake were considered. Findings were summarized according to the effect of KT strategies targeted at (1) health providers and (2) cancer patients or family. **Results:** The database and manual searches yielded 14486 titles and abstracts. Sixteen articles, reporting on thirteen studies, met the inclusion criteria. Four studies involved KT interventions targeting health professionals, and nine studies targeted patients or patients and families. Most studies targeting patients reported significant improvement in knowledge, beliefs and adherence with analgesic administration resulting in improved pain outcomes, as evidenced by decrease in pain intensity, improved pain relief, improved quality of life or satisfaction with pain relief. Interventions targeting health professionals could be effective, but were less likely to result in such positive changes. **Conclusions:** KT interventions that target health professionals to support improved cancer pain control often fall short of their intended effect, and similar interventions aimed at patients are more likely to work. These results may inform planning for future KT programs in cancer pain control. **Funding:** Canadian Institutes of Health Research Grant PET69772.

**86 Oral Presentation**

**Pain 1**

**Can We Identify the Mechanisms of Cancer-Induced Bone Pain with Quantitative Sensory Testing?**

*Authors:* Angela Boyd Palliative Care Research Team, CRUK University of Edinburgh UNITED KINGDOM
Marie Fallon University of Edinburgh UNITED KINGDOM
Stobhan Duncan University of Edinburgh UNITED KINGDOM
Sandra McConnell University of Edinburgh UNITED KINGDOM
Lesley Colvin University of Edinburgh UNITED KINGDOM
Barry Laird University of Edinburgh UNITED KINGDOM

**Background:** Cancer-induced bone pain (CIBP) is associated with increased morbidity, anxiety and depression and reduced performance and quality of life. It remains a considerable therapeutic challenge that has been neglected in research. Clinical characterisation will aid understanding of the mechanisms of CIBP providing a comprehensive pain assessment and application of targeted treatment. **Aim:** to characterise the different components of CIBP using Quantitative Sensory Testing (QST) as a measure of altered sensory processing. **Methods:** 45 patients with CIBP were analysed. They completed the Brief Pain Inventory (BPI) and a QST assessment of the painful area plus an appropriate control site. Standard descriptive statistics were used to calculate the demographic, clinical measures and questionnaire results. **Results:** The sample comprised 20 men and 25 women (average age of 65.6 years, range 41–83 years). Median scores for “pain right now”, “average pain” and “worst pain” were 4, 5 and 8 out of 10 respectively. Abnormal sensation was elicited with brushing test in 24 (53.3%); of these 15 had increased and 9 reduced sensitivity. 16 of the 45 patients (35.6%) had dynamic mechanical allodynia. Mechanical responses to von Frey hairs were significantly altered over the affected area for both detection and pain thresholds. 26 patients (57.8%) had increased warm sensitivity; 19 patients rated this as painful. 5 patients (11.1%) had reduced warm sensitivity. 24 patients (53.3%) had increased and 2 (4.4%) reduced cool sensitivity; 16 patients rated this as painful. 19 patients (42.2%) had increased sensation to both warm and cool. Only 11 patients (24.4%) had entirely normal thermal sensation. **Conclusions:** Altered mechanical and thermal sensitivity is present in a significant proportion of patients with CIBP, indicating unique changes in the underlying neurobiology that have not previously been demonstrated clinically. This clinical evidence of underlying pathways can be used to start developing targeted interventions.

**87 Oral Presentation**

**Organisation of Care and Services**

**End-of-life decision making among elderly patients aged 80 years or older**

*Authors:* Johan Bilsen End-of-Life Care Research Group Vrije Universiteit Brussel BELGIUM

Background: Half of the persons who die are aged 80 years or older (80+). However there is little information available concerning the end of life of this group. This study aims (1) to describe the incidence and characteristics of medical end-of-life decisions with a possible or certain life-shortening effect (ELDs) among patients aged 80+ who died non-suddenly, (2) to describe the characteristics of the decision-making process preceding the ELDs and (3) to compare this with younger patients who also died non-suddenly. **Methods:** There was taken a representative sample of deaths reported to the registries in Flanders, Belgium, in 2001 (N=5005). The reporting physicians received an anonymous mail questionnaire about possible ELDs preceding the death involved and characteristics of end-of-life decision making. **Results:** The response rate was 58.9% (N=2950). An ELD was made among 53.6% patients aged 80+ who died non-suddenly: use of life-ending drugs occurred among 1.1% (no euthanasia cases), pain and symptom alleviations with a possible life-shortening effect among 27.3% and withholding or withdrawing of life-prolonging treatments among 25.2%. Terminal sedation occurred in 6.9% of the cases. Total incidence of ELDs was not different among patients aged 80+ than among younger patients. The use of life-ending drugs occurred six times less frequent among patients aged 80+ than among younger patients and pain and symptom alleviation with life-shortening co-intended and terminal sedation two times less frequent. ELDs were not often discussed with patients aged 80+. Among competent older patients this was less than compared with competent younger patients. **Conclusions:** ELDs are common among patients aged 80+, but physicians seem to have a more awaiting attitude at the end of life of these patients as for younger patients. More efforts should be made to involve older patients more often in end-of-life decision making. This study was mainly funded by the fifth Framework Program of the European Commission.

**88 Oral Presentation**

**Organisation of Care and Services**

**Equity of geographic access to adult inpatient hospice and palliative care services within England & Wales**

*Authors:* Justin Wood Institute for Health Research International Observatory on End of Life Care UNITED KINGDOM
David Clark International Observatory on End of Life Care Lancaster UNITED KINGDOM

**Background:** As inpatient hospice and palliative care provision within England and Wales (E&W) matures, interest in the question of socio economic access to care has grown. We examine whether geographic access to inpatient hospice and palliative care is equitable. **Aims:** To analyse the geographic supply of, and demand for, specialist adult inpatient hospice and palliative care services across E&W at a small area level. To identify inequalities in access, and in addition inequality – where high demand and poor supply are compounded by deprivation. To map demand, supply, deprivation and inequality in geographic access by administrative lower super output areas (LSOA) and to quantify populations affected. **Methods:** A quantitative spatial analysis, using a Newtonian distance decay formula to model service accessibility. Analysis of 6.5 million road network drive times between 189 inpatient sites and 34,378 LSOA, and of 400,000 cancer deaths in E&W. Findings were mapped using a geographic information system. **Results:** Highest levels of geographic access to adult inpatient hospice and palliative care are found within a small number of major urban conurbations, such as London, where cancer patients may potentially access alternative hospices with high bed numbers. Localised examples of geographic inequity of access to care can be observed within neighbourhoods of many cities and towns nationally. Nearly 6% of adults cannot access inpatient hospice and palliative care within a 30 minute drive. Limited access to inpatient palliative care, and inequity, is particularly seen within the South West, along parts of the East Coast, in Northumberland and to the east of the Pennines. Rural access to specialist
palliative care is particularly limited. **Conclusions:** Hospice accessibility has implications for the establishment of further hospices and highlights the need to consider the remit of alternative palliative care services in areas without local access, as well as for deprived communities.

**89 Oral Presentation**

**Organisation of Care and Services**

Improving generalist palliative care services for adults at the end of life: what more do we need to know?

**Authors:** Cathy Shipman Department of Palliative Care & Policy King’s College London UNITED KINGDOM
Scott Murray University of Edinburgh Edinburgh UNITED KINGDOM
Mary-Joey Gyseke King’s College London London UNITED KINGDOM
Sarah Forrest University of Cambridge Cambridge UNITED KINGDOM
Stephen Barclay University of Cambridge Cambridge UNITED KINGDOM
Patrick White King’s College London London UNITED KINGDOM
Allison Worth University of Edinburgh Edinburgh UNITED KINGDOM
Steve Dewar King’s Fund London UNITED KINGDOM
Marilyn Peters King’s College London London UNITED KINGDOM
Suzanne White King’s College London London UNITED KINGDOM
Irene J Higginson King’s College London London UNITED KINGDOM

**Background:** Most end of life care is provided at home, in care and nursing homes and hospital by generalists rather than specialists in palliative care. The importance of generalist care is recognised in current policy, but little is known about provision. The study aimed to identify issues, gaps in provision and research to improve generalist end of life care. **Methods:** A national consultation was undertaken in England and Scotland using a modified nominal group technique. 285 commissioners, generalist and specialist palliative care providers, academics, voluntary and user groups were invited to participate. Data was collected by email, face-to-face and telephone interview in 5 different areas, and a thematic analysis undertaken. Key priorities were agreed by participant votes. **Results:** 210 participants (74%) took part in the consultation across London, Cambridgeshire, Warwickshire and Scotland. There was little consensus about what constituted generalist end of life care. Perceived gaps in provision included care of non-cancer patients, older people and minority groups. We identified much enthusiasm for providing excellent end of life care, but engaging some generalists in education and training was difficult. A greater evidence base was needed for tools such as the Gold Standards Framework and Liverpool Care Pathway. Workforce and financial issues limited provision. More needed to be known about best practice, place of care and integrating end of life care into generalist caseloads. Understanding more about patient and carer experiences and health economic implications was central to generating a good evidence base. **Conclusions:** Generalist end of life care takes place in many different settings, amongst many competing priorities. Given its importance, lack of research to underpin best practice is surprising. Current policy developments in England are welcomed but need a strong evidence base to ensure sustainability. Funder: National Institute for Health Research SDO Programme, England.

**90 Oral Presentation**

**Organisation of Care and Services**

Can we prevent emergency hospital admission of older people at the end of life? Methodologies, challenges and findings from the first wave of data from the COPEC study

**Authors:** Barbara Gomes Palliative Care, Policy & Rehabilitation Cicely Saunders International/King’s College Londo UNITED KINGDOM
Rachel Burman King’s College Hospital NHS Trust London UNITED KINGDOM
Andy Parfitt Guy’s & St Thomas’ NHS Foundation Trust London UNITED KINGDOM
Irene J Higginson King’s College London, Department of Palliative Care, Policy & Rehabilitation London UNITED KINGDOM
Ed Glucksman King’s College Hospital NHS Trust London UNITED KINGDOM
Laura Skingle King’s College London, Department of Palliative Care, Policy & Rehabilitation London UNITED KINGDOM
Teresa Beynon Guy’s & St Thomas’ NHS Foundation Trust London UNITED KINGDOM

**Background:** Most older people die in hospital and numbers of 65’s and over (65+ at Emergency Departments (EDs) are increasing, COPEC study – Care for Older People in Emergency Care (COPEC) aims to identify reasons/patterns of admission for 65+ to two EDs in London 2) assess palliative need amongst the group 3) investigate whether admissions were preventable. **Methods:** Review of records of all patients 65+ who died/were admitted at EDs at King’s College Hospital or Guy’s and St Thomas’ Hospital (Nov06–Oct07). The hospitals serve a population of 760,000, 77,300 aged 65+. Data from 3 databases at each site were analysed to describe patient profile and reasons/patterns for death/admission. **Results:** In one year, there were 27,543 attendances of 65+ across the two EDs (11.7% of all ED attendances): 130 died at ED (46.3% of all ED deaths) and 51.9% were admitted (28.6% of all ED admissions). First phase findings at King’s College Hospital show that of those died/admitted, 48.0% came in out-of-hours (59.3% in weekdays, 6pm-8am) and 45.1% presented alone. Problems most frequently recorded at ED were shortness of breath (12.1%), falls (10.5%) and chest pain (8.2%); diagnosis was unknown in 89.1% of cases. Approvals for use of data where patient consent was unfeasible took 5 months (40% of project time), granted by 4 organizations. **Conclusions:** Older people are frequent admitted at EDs and patterns suggest isolation and lack of alternatives during out of hours. Nearly half of deaths at ED are from 65+. Breathlessness appears to be a critical symptom but there may others. A greater understanding of the population and care pathway should trace end of life models in emergency care. On behalf of COPEC project team. Funded by Guy’s & St. Thomas’ Charity and King’s College Hospital Charity.

**91 Oral Presentation**

**Organisation of Care and Services**

Metastatic spinal cord compression and rehabilitation: explaining unintended consequences in a health care organisation

**Authors:** Gail Eva Nuffield Department of Medicine University of Oxford UNITED KINGDOM
John Paley University of Stirling Stirling UNITED KINGDOM
Bee Wei University of Oxford Oxford UNITED KINGDOM

**Background:** Metastatic spinal cord compression (MSCC) is a cause of significant disability. In other conditions (stroke, for example) such disability would merit a patient’s participation in a rehabilitation programme. Patients with MSCC, however, are not routinely provided with structured rehabilitation. This study was designed to examine the processes involved in the provision (or lack) of rehabilitation in MSCC, in order to identify the mechanisms implicated in service delivery. **Methods:** The design was a series of 9 process-tracing, longitudinal case studies, involving 58 interviews with patients, carers, rehabilitation staff, nurses and doctors in one NHS region. A context-mechanism-outcome data collection strategy was used, together with a grounded theory constant comparative method of data analysis. **Results:** Patients described inadequate rehabilitation, for example: little information on practical issues like incontinence, provision of equipment without consideration of the psychological aspects of disability, discontinuity between hospital and community services. These problems prevailed despite support for rehabilitation and the existence of arrangements for its provision. **Conclusions:** ‘Deficiency explanations’ are often used to explain undesirable outcomes: a lack of resources, or time, or skills, or staff. These answers are not entirely wrong, but here they are incomplete and misleading. Complex adaptive systems (CAS) theory offers an alternative explanation for unintended consequences, with outcomes the result of several ‘agents’ acting independently, and in accordance with a set of ‘rules’ or mechanisms. CAS might prove useful in health care to explain structures
and behaviour in certain ways. Rather than a deficiency of some kind, the ‘little rehabilitation’ outcome here is explained in terms of a system which self-organises in such a way as to keep rehabilitation off the agenda. The implications for action of such explanations are rather different from the implications of deficiency explanations.

92 Oral Presentation

Organisation of Care and Services
The war against polypharmacy – a new palliative – geriatric approach in the community and in long term care facilities?
Authors: Doron Garfinkel Department of Evaluation & Rehabilitation & Palliative UnitShoham Geriatric Medical Center ISRAEL

Background: Improved medical technology is associated with significant extensions in “End of Life” periods in Patients with Limited life Expectancy & Decreased Quality of Life (PLEDQoL). Guidelines for drug use in younger/healthier people are extrapolated to include PLEDQoL, making the extent of polypharmacy in the later, most disturbing. Our hypothesis: in PLEDQoL, the sum total of negative impacts of polypharmacy outweighs the sum total of the potential beneficial effects of all specific drugs. We present the palliative-geriatric (PG) methodology and algorithm for improving therapy and minimizing drug intake. Our results in long term care departments (LTCD) have been published(1).
Method: Drug discontinuation (DD) was carried out in 6 LTCD. The aim was to stop as many drugs as possible. The control group of patients of the same LTCD in whom no DD performed, were comparable regarding age, sex & co-morbidities.

Main Results in LTCD:
332 drugs were discontinued in 119 patients (1–7 drugs/patient, average 2.8). DD was not associated with significant adverse effects; in some, decreased agitation, increased alertness and improvement in disability were reported. The overall annual rate of DD success was 82% of all patients and 90% of all drugs: DD success was 100% for nitrates (22/22) with no return of symptoms and 94% (33/35) for H2 blockers. No increase in blood pressure was reported in 82% patients (42/51) in whom DD of several anti hypertensive drugs achieved. The annual mortality rate was 45% in controls, 21% in the study group (p<0.001, chi square test); the annual referral rate to acute care facilities was 11.8%, and 30% in the study and control group, respectively (p<0.002). DD was associated with a substantial decrease in the cost of drugs(1).

Preliminary Results in the Community: The PG methodology was tried in several dozens of community dwelling frail elders and could be performed in most of them (1–7 drugs) without adverse effects. In some, a remarkable improvement was noticed in QoL: improved mobility, alertness and cognitive status (i.e. increases in Minimental state examination [MMSE] from 14/30 to 23/30 and from 14/30 to 30/30 following DD of 7 and 6 drugs respectively, after 6 weeks of follow up).

Conclusion: Application of the PG methodology in PLEDQoL and in frail elders enables discontinuation of several drugs with reduction in mortality rates and referrals to acute care facilities, improved quality of living and lower costs.

93 Invited Lecture

How to improve research funding and capacity building in a world wide perspective
Pain and Palliative Care in the Framework programmes of the European Union
Authors: Elenyo Manoussaki Research DG-F2, Cancer Research European Commission BELGIUM

European Commission’s research activities are funded mainly through “Framework programmes” (FP). Palliative care projects funded: 5th FP BIOMED II programme. The project PALLIUM (1998) aimed at examining the different modalities in palliative care in Member States and at analysing occupational, ethical and policy issues in this field. 6th FP Life Sciences, Genomics and Biotechnology for Health. The following topics were published: Molecular mechanisms of cancer related pain. No proposal was submitted. Innovative research on palliative care in patients with advanced stages of cancer. 2 projects are being supported: – The European Palliative care Research collaborative, (EPCR, € 2.8 million); – Development of new therapeutic substances and strategies for treatment of pain in patients with advanced stages of cancer (€ 2, 2 million). 7th FP Health area. The following topic was published: Optimising research on end of life care of cancer patients. Two proposals were selected. A European Collaboration to optimise research for the care of cancer patients in the last days of life (OPCARE 9). Reflecting the positive diversities of European priorities for research and measurement in end of life care (PRISMA). Looking towards the future. We intend to continue reinforcing these efforts, which could also cover other areas were palliative care is equally important such as HIV, neurodegenerative disorders, In addition, the public health research aspects of palliative care could be considered. The Framework Programme offers additional opportunities in the field of palliative care. We have just launched the Innovative Medicines Initiative (IMI), a joint public-private partnership aimed at speeding up the development of new medicines. IMI will issue annual calls for proposals based on a strategic agenda developed by all relevant stakeholders. Pain control is one of the targets for 2008. International Cooperation is also a key element of the 7th Framework Programme. Our initiatives in this area intend to establish collaborations, for each of the thematic areas, which are of specific interest for the developing countries. The 7th Framework Programme offers also possibilities to strengthen the coordination of national/regional research programmes in areas of joint interest. As regards training activities the “People” Programme offers multiple opportunities and modalities including support for European scientists as well as researchers from third countries. In this context, it would be important that EAPC identifies what should be the detailed research priorities that could be considered in the context of the most suitable modalities offered by the Framework Programme.

94 Invited Lecture

How to improve research funding and capacity building in a world wide perspective
Current status of Funding International Research Programs.
Based on a recent study funded by OSI on the availability of funding for palliative care
Authors: Kathleen Foley Memorial Sloan Kettering Cancer Center Pain Service U. STATES

In 2007, the International Palliative Care Initiative of the Open Society Initiative reviewed donor organizations that fund palliative care development in five world regions. The report was prepared by Michael Wright, Thomas Lynch and David Clark and provides an overview of funding for palliative care but did not selectively identify specific research funding. The report provides an initial analysis of palliative care donors worldwide and has been helpful in categorizing donors based on the typology of the donor organization; multilateral; bilateral, humanitarian; faith based; business; hospice support; associations and others. The predominant funding for palliative care internationally comes from humanitarian, faith based, and business organizations accounting for almost 70% of the funding. Of note, most donor organizations were active in the CEE/CIS (157 donors representing 44% of the donors) followed next by Africa (141 donors representing 40% of the donors); only 22 or 6% were active in Latin America and the Caribbean and less than 5% in the Middle East. Based on this report, the authors recommend a global register of international hospice and palliative care donors and an awareness raising campaign to focus attention on worldwide need, coupled with a position paper to help advocate for funding and provide an accessible explanation of palliative care and a glossary of terms for funders. Given the lack of ability to identify specific research funding streams in this report, we can point to currently identified research funding initiatives. For example, support to the Department of Palliative Care, Policy and Rehabilitation at King’s College London through Cicely Saunders International; the European Union grant to EAPC to support research in palliative care in Europe and a collaborative funding grant from...
the Diana Fund, IPCI and the National Hospice and Palliative Care Organization to support research on palliative care in Africa. Individual country initiatives in Britain, the United States and Canada, both governmental and non-governmental, have given some priority to palliative care research as well. There is enormous need to attempt to codify and clarify the current status of research in palliative care funding throughout the world to assess the percentage of palliative care funding compared to others.

95 Invited Lecture
How to improve research funding and capacity building in a world wide perspective

Australian National Initiatives
Authors: David Currow Palliative & Supportive Services Flinders University AUSTRALIA

In order to improve the evidence base for quality palliative care, it is necessary to invest in research infrastructure. Given the nature of research in palliative care, multi-site studies are absolutely crucial to refine the practice to specific subgroups of the population. As such, the Australian Government together with other national organisations have cooperated to create significant palliative care research infrastructure. This includes: – A dedicated grants program through the National Health and Medical Research Council; – A competitive Doctoral program; – A national program to improve the evidence for prescribing palliative medications (including their cost effectiveness and safety); – Infrastructure for multi-site data. Together, this investment represents an ability of the palliative care community to build capacity for quality research while answering practical questions on day to day service delivery and therapeutics.

96 Invited Lecture
How to improve research funding and capacity building in a world wide perspective

Canadian National Initiatives
Authors: Neil Hagen Division of Palliative Medicine University of Calgary CANADA

Canada has experienced a remarkable national growth in palliative care research funding and capacity over the past decade. This situation resulted from alignment of several distinct cultural, political and organizational changes, and strategically targeted activities from key non-governmental, professional and governmental organizations. Cultural changes in Canada have included an emerging grass-roots public interest in palliative and end of life care. Political factors involved major initiatives by the Senate of Canada, culminating in a pivotal report in 2000, “Quality end of life care, the right of every Canadian” which has continued to impact national and international evaluations.

97 Invited Lecture
How to improve research funding and capacity building in a world wide perspective

Latin American National Initiatives
Authors: Jorge Hugo Eisenclia Palliative Care Unit Pallium Latinoamerica ARGENTINA

Research in palliative care has increased significantly in the last decade, but while more than 80% of the global disease burden occurs in developing countries, the proportion of research conducted in these settings accounts for less than 10 per cent of all global research activity. In Latin America, in spite of the increase of palliative care initiatives across the region, research efforts are still very limited. Consequently, there is a lack of local evidence which on one hand, plays against knowledge advance and practice improvement and, on the other hand, complicate the institution of policies able to improve palliative care delivery. Altogether, these factors form a vicious circle which results in limited visibility of palliative care, which results in limited political support and funding. We have now a broad view concerning what happens in the region, and we also have a supportive document, like the Declaration of Venice. It is crucial that recommendations and proposals take into account feedback provided not only by donors but also local leaders from developing countries, who are the best source of information about the needs, challenges and barriers present at the local level.

98 Invited Lecture
How to improve research funding and capacity building in a world wide perspective

Palliative Care research has been steadily improving during the last decade. Despite these improvements national and international evaluations have identified several limitations and areas for improvement, ranging from the laboratory bench to the bedside and into the health care policy arena. – Improved understanding of the basic biological mechanisms behind symptoms; – Symptom classification – common international system; – Symptom assessment – common international assessment tools; – Research staff; Training of junior researchers; Permanent chairs in palliative medicine, palliative care nursing and other areas. – Establishment of sustainable research groups of sufficient size with interdisciplinary knowledge and capacity; – Improve the quality of the research conducted – move from descriptive studies to intervention studies; – To develop national and international partnership; – Apply the optimal research methodology fitting the research question. There are substantial barriers to research to reach some of the items addressed. Some barriers are found within the systems of palliative care, such as scepticism in many clinical environments towards research and the lack of prioritizing research. These we need to address ourselves. Others are found on the arena where Palliative Care collaborates with other parts of the health care system, other professions and even outside health care environment. Here we need to ask the right questions in order to fertilize collaboration. Economically we need to produce high quality research in funded research groups within several countries in the world in order to ensure long lasting funding, nationally and internationally.
**99 Oral Presentation**

**Research methodology and Audit**

**Distress At The End Of Life: A Comprehensive Mixed Methods Longitudinal Study of Distress Amongst Patients with Advanced Cancer From Time of Referral to Palliative Care Services to Death**

**Authors:** Katharine Thompson Palliative Medicine Rotation South East Scotland UNITED KINGDOM
Gordon D Murray University of Edinburgh Medical School Edinburgh UNITED KINGDOM
Marie T Falon University of Edinburgh Medical School Edinburgh UNITED KINGDOM
Scott A Murray University of Edinburgh Medical School Edinburgh UNITED KINGDOM

**Background:** The experience of distress is derived from interactions between physical, psychological, social and spiritual factors. Aims: To explore the evolution of distress from the time of referral to palliative care services to death. **Methods:** A prospective longitudinal study of 100 advanced cancer patients newly referred to a hospice community palliative care service in Central Scotland. Patients were assessed monthly from the time of referral to death, or for 6 months maximum. The primary outcome measure was global distress (NCCN Distress Thermometer, DT); secondary measures were physical, psychological, spiritual and social distress using: Memorial Symptom Assessment Scale, Edinburgh Depression Scale, FACIT-Sp, DEPCAT, clinical measures and patient perspectives through serial, in-depth interviews. **Results:** Multivariate analysis revealed that receiving inadequate information (OR 3.10, 95% CI 1.10 to 8.74, p = 0.033) and social dysfunction (OR 4.28, 95% CI 0.88 to 20.9, p = 0.072) are independent predictors of distress. Levels of physical, psychosocial and spiritual distress fluctuated initially before stabilising to a chronic, lower level with occasional exacerbations. Global distress fluctuated constantly and unpredictably over time, yet the DT correlated significantly with MSAS, EDS and FACIT (p<0.001), reflecting its ability to detect change in any one domain. Patients’ perspectives evolved in a positive direction indicating adaptation through dying. However, unpredictable, acute exacerbations of distress occurring reflected transient control loss due to unexpected change. **Conclusions:** Patients’ perspectives substantiate the descriptive data; together indicating patients become reconciled to death. However, episodic loss of control exacerbates distress transiently and unpredictably during this final journey. The DT sensitively detects, but does not predict, physical, psychological, social or spiritual distress, rendering it very useful for distress screening amongst advanced cancer patients.

**100 Oral Presentation**

**Research methodology and Audit**

**Randomised clinical trials in palliative care. How has the reporting quality changed during the last twenty years?**

**Authors:** Even Hovig Fyllingen Department of Cancer Research and Molecular Medicine Norwegian University of Science and Technology NORWAY
Marianne Jensen Hjermstad Department of Oncology, Ullevaal University Hospital Oslo NORWAY
Line Merethe Oldervoll Department of Cancer Research and Molecular Medicine, Faculty of Medicine, Norwegian University of Science and Technology Trondheim NORWAY
Jon Håvard Loge Department of Clinical Cancer Research, Rikshospitalet-Radiumhospitalet Medical Center OsloNORWAY
Stein Kaasa Department of Cancer Research and Molecular Medicine, Faculty of Medicine, Norwegian University of Science and Technology Trondheim NORWAY

**Background:** Research in palliative cancer care is methodologically challenging. Nevertheless, palliative care needs evidence based knowledge to ensure best possible treatment. Good quality in reporting is crucial to enhance the understanding of results, and for evaluation of studies’ validity and over-all quality. The aim of the present study was to assess the quality of reporting in randomised clinical trials (RCTs) in palliative cancer care published from January 1st 1986 through August 2006 by means of a checklist devised from the CONSORT statement. **Methods:** A PubMed search was performed in the English language literature using the MeSH term “palliative care” limited to adult cancer patients. All RCTs were extracted and grouped in four time periods; T1: 1986–1990, T2: 1991–1996, T3: 1997–2001, T4: 2002–2006. Evaluated factors were reporting of a. outcomes, b. aim of study, c. inclusion/exclusion criteria, d. drop-outs, e. intention-to-treat (ITT) analysis, f. power calculations, g. baseline data comparison, and h. flow chart. **Results:** 134 RCTs were identified, of which 131 were evaluated. Publications in each time period was T1: 13 (10%) T2: 37 (28%) T3: 44 (34%) T4: 37 (28%). Reporting the use of ITT has increased steadily over the years (T1: 8% T2: 19% T3: 34%, T4: 54%). There was an increase in reporting the use of power calculations during the first three periods (T1: 23% T2: 35% T3: 50%, T4: 49%). The use of flow charts peaked after 2001 (T1: 8% T2: 3% T3: 9%, T4: 38%). The reporting of the other evaluated factors were relatively high and stable throughout the observation period (T1, T2, T3 and T4 #8805; 80%). **Conclusions:** In the time period from 1986 to 2006 there has been a marked improvement in reporting and use of intention-to-treat analysis, power calculations and flow chart in palliative cancer care randomised controlled trials. Compared with standards from the CONSORT statement, the quality of reporting has improved over the years, but there is still room for further improvement.

**101 Oral Presentation**

**Research methodology and Audit**

**Novel Approaches to Trials in Palliative Care**

**Authors:** Andrew Fowell North West Wales NHS Trust Palliative Care Dept UNITED KINGDOM
Rosalynde Johnstone North West Wales NHS Trust Gwynedd UNITED KINGDOM
Dora Finlay Velindre Hospital Cardiff UNITED KINGDOM
Ian Russell University of Wales Bangor Bangor UNITED KINGDOM
Daphne Russell University of Wales Bangor Bangor UNITED KINGDOM

**Background:** If randomised controlled trials are so difficult to conduct in palliative care, do we need to look for novel methods to improve the evidence base? Is this particularly so where the subjects are in the last few days of life? We describe the development and design of a switchback cluster randomisation to overcome the issues surrounding consent, gate-keeping and attrition, enabling research to take place as part of routine care. **Methods:** A pilot study has demonstrated that a crossover cluster randomised trial is entirely feasible. A switchback design builds on and strengthens these outcomes. We propose a study involving 10 units, utilising a switchback cluster design, each unit will be randomised to intervention A or B for 3 months, they will then swap to B or A for a further 3 months before the final phase the same as the first, ie ABA or BAB. Adopting this design minimises bias and other potential sources of contamination whilst increasing experimental control. Utilising a switchback cluster randomised design reduces the sample size and number of clusters required to reach statistical power. **Results:** For trials with dying patients this has potential: consent is sought at unit level rather than approaching individual patients, whilst recruiting smaller numbers of patients is an obvious advantage. **Conclusions:** A larger scale study needs to be undertaken to assess the suitability of switchback designs for trials with dying patients. This study should explore the key issues intra-class correlations and comply with the CONSORT recommendations for reporting cluster randomised trials to demonstrate the feasibility of this methodology. The identification of a suitable methodology for trials with dying patients will support the development of a trials platform which can inform the establishment of an evidence base to underpin the guidelines for the delivery of quality end of life care.
102 Oral Presentation

Research methodology and Audit

Teleform Usage in Clinical Trials: Database Management

Authors: Hue Quan Capital Health Regional Palliative Care Program Grey Nuns Community Hospital CANADA
   Carla Stiles Tom Baker Cancer Center Calgary CANADA
   Patricia Biondo Tom Baker Cancer Center Calgary CANADA
   Robin Fainsinger University of Alberta Edmonton CANADA
   Neil Hagen Tom Baker Cancer Centre and University of Calgary Calgary CANADA
   Dwight Moulin London Regional Health Sciences Center London, Ontario CANADA

Background: Multicenter trials require data collection methods that accurately capture study information, while simultaneously minimizing workload for research staff. All research teams – investigators, sponsors and clinical research organizations – are concerned about fidelity of data collection, transfer and accuracy. Direct data entry can potentially address these concerns but further innovation is needed. Methods: Teleform (Verity Software Inc., Vista, CA) is an optical recognition-based technology that scans hand written data collection paper forms (quantitative and free text) and exports digitized data to a computer database. A multidisciplinary team converted hard copy data collection forms to teleform format for a multicentre trial focusing on sublingual methadone for the treatment of breakthrough pain. Each document was assigned a unique number and visual identifier to ensure form recognition, data organization and patient confidentiality. Sites used a teleform manual and individualized instruction to support form completion and transmission of data. Independent reviewers systematically evaluated submitted forms for missing data and inconsistencies. Free text entries were deciphered and transferred to the MS Access database. Queries were generated when necessary for clarification.

Results: 300 completed forms have been submitted to the database. Health care providers and patients report that the format is easy to understand, and easy to complete. Data queries have been uncommon. Data integrity and patient confidentiality have been maintained. Conclusions: Teleforms support detailed collection, transfer and storage of study information, are feasible for both patient and professional data capture, and are financially modest to implement. This technology can support international clinical trials in palliative care, requiring little more than a fax machine from the sending centre. Funding: CIHR Grant PET69772 & Alberta Cancer Board High Risk Grant.

103 Oral Presentation

Research methodology and Audit

Quality indicators for palliative care

Authors: Anneke Francke NIVEL NETHERLANDS
   Roeline Pasman Department of Public and Occupational Health, EMGO-Institute, VU Medical Center Amsterdam NETHERLANDS
   Hella Brandt NIVEL Utrecht NETHERLANDS
   Luc Deliens Department of Public and Occupational Health, EMGO-Institute, VU Medical Center Amsterdam NETHERLANDS
   Riet Van Vliet IGZ Utrecht NETHERLANDS

Background: Main aim of this study is to develop a set of quality indicators for palliative care that can be used in various settings (e.g. hospices, at home, hospitals, nursing homes). This 2-year project consists of five phases: (a) inventory of existing relevant quality indicators; (b) discussions with experts about which existent indicators are highly relevant and which indicators are being missed; (c) development of a draft set of quality indicators; (d) testing the set in various care settings; (f) making of the final version. The first phase already has been passed, and this presentation will mainly focus on the process and results of the inventory of existing indicators.

Methods: Existing quality indicators were identified by searches in Medline, PsycINFO, EMBASE and CINAHL. Search terms regarding palliative care and quality indicators were combined. Only publications focusing on measurable quality indicators for palliative care were included. We considered an indicator “measurable” when a numerator, denominator or a performance standard was given. The inclusion process was performed by two reviewers independently. Results: The searches resulted in 580 potentially relevant references. Eleven of these 580 fulfilled the inclusion criteria. By reference tracking another 3 publications were identified. These 14 publications concerned 6 sets of indicators: 2 concerning palliative cancer care, 1 concerning ICU end-of-life care, 1 concerning vulnerable elderly in end-of-life care, 1 concerning palliative nursing home patients, and 1 concerning palliative care at home. In total about 100 (partly overlapping) indicators were found. The indicators covered all aspects of palliative care (physical, psychosocial and spiritual). Conclusions: The majority of the indicators concerned the process of palliative care; only a few are related to outcomes. In the next project phases choices have to be made regarding which quality indicators are most applicable and relevant for various palliative care settings.
The diagnosis of Adjustment Disorders (AD) (with depressed mood or with mixed emotional features) is reported to be common among medically ill patients, with a prevalence of 20–30%. According to the DSM-IV– Text Revised to make the diagnosis, the following criteria should be met: A. The development of emotional or behavioral symptoms in response to an identifiable stressor(s) occurring within 3 months of the onset of the stressor(s). B. These symptoms or behaviors are clinically significant as evidenced by either of the following: (1) marked distress that is in excess of what would be expected from exposure to the stressor (2) significant impairment in social or occupational (academic) functioning; C. The stress-related disturbance does not meet the criteria for another specific Axis I disorder and is not merely an exacerbation of a preexisting Axis I or Axis II disorder. D. The symptoms do not represent Bereavement. Several problems emerge when examining the abovementioned criteria, particularly the difficulty in establishing the clinical relevance of the patient’s response (many of them can be clinically relevant) and the characteristics of symptoms (distress and impairment in social or occupational functioning). In palliative care this issue is extremely important, with data indicating the amorphous nature of the AD category and the little efficacy in using existing scales for detecting AD among patients in non-advanced as well as advanced disease. Recent research care has also raised questions about the role of predictive factors. Lower performance status, concern about being a burden to others, and lower satisfaction with social support were significantly associated both with AD and Major Depression in palliative care. More attention to the dimensions of suffering rather than categorical criteria may help in helping patients and their families to cope with the problems of the end of life.

107 Invited Lecture

The complexity in the understanding and treatment of Depression in PC

Depression and hopelessness—similarities and differences

Authors: Jon Håvard Loge NORWAY representing the EPCRC

Background: Depressive symptoms are commonly observed in palliative care patients whereas depression as a psychiatric disorder is less frequent. Depressive symptoms as part of other psychiatric conditions than depression probably explain this. Existential distress is increasingly being recognised as a distinct type of distress, and a Demoralization syndrome has been postulated as an expression of such distress. Hopelessness, i.e. an individual’s thoughts and beliefs about the future, is a core symptom in the Demoralization syndrome as in a Major Depressive episode. An improved assessment tool for depression should ideally identify those in need of specific anti-depressive treatment but also exclude those with similar but different conditions in need of other types of interventions. Objectives: To present empirical studies that illustrate the distinction between hopelessness and depression as part of the EPCRC project on the development of a new assessment tool for depression in palliative care. Methods: Literature review. Results: The literature on hopelessness is relatively new and was originally focused on prediction of negative health outcomes such as suicide attempts. Hopelessness is a powerful predictor of eventual suicide and includes different dimensions; feelings about the future, loss of motivation, and expectations. The hopelessness construct is a factor in many mental disorders. Hopelessness at the end of life is not a simple product of prognosis, but is shaped by psychosocial factors. Hopelessness at the end of life might not simply be the absence of hope, but attachment to a form of hope that is lost. Hopelessness is associated with negative health outcomes in palliative care such as desire for hastened death (termination of life-prolonging treatment or physician-assisted suicide/euthanasia). This association stands even when controlling for depression. On this background a meditational hypothesis has been proposed, in which hopelessness serves as an intervening variable between depression and suicide. Conclusions: In the terminally ill, as with other populations, hopelessness is associated with suicidal ideation more strongly than is depression. Whether hope and hopelessness are two extremes of the same dimension or different constructs is unresolved.

108 Invited Lecture

The complexity in the understanding and treatment of Depression in PC

The EPCRC project on assessment and classification of depression among palliative cancer patients

Authors: Elisabet Wasteson Dpt of cancer research and molecular medicine Faculty of Medicine, NTNU NORWAY Jon Håvard Loge Rikshospitalet Medical Center Oslo NORWAY representing the EPCRC

Background: The prevalence estimates on depression vary greatly among studies of patients with advanced cancer. This is mainly related to how depression is assessed and classified. Some specific obstacles are known to complicate the identification of depressed palliative patients. One is the large resemblance between symptoms of the disease along with its treatment and the symptoms of depression (somatic depressive symptoms). Another is the lack of consensus regarding the classification and assessment of depression. The prevalence estimations seem clearly dependent on whether depression is measured as a categorical disorder or as a spectrum condition, therefore the choice of measurement method is crucial. As a consequence, this raises questions related to both validity and reliability. Methods: The first part of this EPCRC-study aims at defining how depression is classified and assessed in studies of palliative patients and to determine an optimal set of items for establishing a diagnosis of depression within this population. Further, a second part aims at developing and testing a computerized assessment tool. In order to fulfil the first part, a systematic literature review was performed on studies measuring and/or classifying depression in a palliative care setting, resulting in a large amount of assessment tools and use of different classification systems. Results: Taking as a starting point in the applied assessments, candidate items were identified, extracted and related to diagnostic criteria of the DSM-IV classification system. An expert panel consisting of experienced palliative care researchers and clinicians participated in this extensive methodological work. In addition, a number of items were selected to cover the dimensions within the DSM diagnostic criteria for a major depressive episode. Relevant items were put together into a pilot version of the assessment tool. Results are presented in detail and discussed in relation to research and clinical concerns.

109 Oral Presentation

Palliative Sedation

Attitudes of Flemish palliative care nurses and physicians toward palliative sedation

Authors: Bert Broeckaert ICRID K.U. Leuven BELGIUM Trudie Van Iersel K.U. Leuven LEUVEN BELGIUM
Background: Several studies have already investigated attitudes of medical professionals towards end-of-life issues. Less research has been conducted concerning the attitudes of palliative care professionals, especially regarding palliative sedation. In 2006 we undertook a quantitative study of attitudes of palliative care physicians and nurses towards palliative sedation. Methods: An anonymous questionnaire was sent to all physicians (147) and nurses (589) employed in palliative care teams and institutions in Flanders (Belgium). The questionnaire contained a demographic part, and an attitudinal part, consisting of a long series of ethical statements using a five-point Likert-scale. To divide physicians and nurses into different attitudinal groups a latent class analysis was fitted with an EM-algorithm. Results: 70.5% of the nurses (n=415) and 67.3% of the physicians (n=99) responded. Only 7% of the respondents prefers euthanasia to palliative sedation. Yet, most physicians and nurses (64%) think palliative sedation does not render euthanasia superfluous. 94% is convinced that artificial nutrition and hydration is not a proper treatment in the case of deep continuous sedation. 75% agrees that palliative sedation can only be administered safely when a specialised palliative care team is involved in the decision making process. Two clusters were found: advocates of deep sedation (43.8%, n=215) and respondents restricting the application of deep sedation (56.2%, n=276). There were no statistically significant differences between both clusters regarding gender, age, profession and years of experience in palliative care. Conclusions: The respondents’ attitudes toward palliative sedation are balanced. Although they consider palliative sedation a good treatment, they do not believe palliative sedation offers a satisfactory solution in all circumstances. They are cautious about applying deep sedation. Funding: Research Foundation Flanders.

110 Oral Presentation
Palliative Sedation
Palliative sedation (PS): comparison of practice between 2001 and 2006
Authors: Karine Moynier-Vantieghem Réhabilitation et Gériatrie Service de Médecine Palliative – CESCO SWITZERLAND
Gilbert B Zulian Service de Médecine Palliative – CESCO Collonge-Bellerive SWITZERLAND
Sophie Pastes Service de Médecine Palliative – CESCO Collonge-Bellerive SWITZERLAND
Yolanda Eespolio Desbaillet Service de Médecine Palliative – CESCO Collonge-Bellerive SWITZERLAND
Catherine Weber Service de Médecine Palliative – CESCO Collonge-Bellerive SWITZERLAND

Background: The aim of this study is to compare practice between 2001 and 2006. Is PS more frequent? Are situations more complex? Are indications different? Are guidelines useful? Methods: Files from all deceased patients during the years 2001 and 2006 were retrospectively analyzed. PS performed with either midazolam, diazepam and/or levopromazine were identified. Indications, route of administration, duration of PS were determined according to the following definition: PS = administration of sedative drugs to adequately relieve one or more refractory symptoms of patients with advanced disease and limited life expectancy and to reduce consciousness either temporarily or permanently. Results: In 2001, 309 persons died, 8 (5 females) received PS (2.5%), mean age was 67.8 years. 6 had advanced cancer and 2 cardio-pulmonary failures. Refractory dyspnoea, insomnia and psychomotor agitation indicated intravenous/subcutaneous midazolam or intrarectal diazepam which was terminal in 5 cases and transitory in 3. Sleep induction failed in one midazolam case. In 2006, 297 persons died, 12 (4 females) received PS (4%). Indication for PS was refractory symptoms: dyspnoea, psychomotor agitation, epilepsy, anxiety. Data will be reported as above. Differences of practice will be analysed.

Conclusions: Number of PS has not increase as much as expected over the past years despite higher complexity of patients. However, misinterpretation of PS, which is performed after strict indications under careful supervision, with euthanasia may persist among caregivers. Carefully monitor our practice appears an appropriate way to avoid the risk of confusion.

111 Oral Presentation
Palliative Sedation
Palliative sedation therapy does not hasten death
Presenting author: Luigi Montanari
Authors: Marco Maltoni Palliative Care Unit Valerio Grassi Hospice, AUSL Forlì ITALY
Emanuela Scarpi Istituto Scientifico Romagnolo per lo Studio e la Cura dei Tumori, Unit of Biostatistics Meldola (FC) ITALY
Oriana Nanni Istituto Scientifico Romagnolo per lo Studio e la Cura dei Tumori, Unit of Biostatistics Meldola (FC) ITALY
Lino Piccinini Hospice Oppezanello, Cancer Center Modena ITALY
Francesca Martini Valerio Grassi Hospice, Palliative Care Unit Forlimpopoli (FC) ITALY
Cristina Pitturieri Hospice Savignano sul Rubicone, Palliative Care Unit Savignano sul Rubicone (FC) ITALY
Paola Turci Hospice Savignano sul Rubicone, Palliative Care Unit Savignano sul Rubicone (FC) ITALY
Dino Amadori Istituto Scientifico Romagnolo per lo Studio e la Cura dei Tumori Meldola (FC) ITALY
Luigi Montanari San Domenico Hospice, Palliative Care Unit Lugo (RA) ITALY

Background: Palliative Sedation Therapy (PST) is indicated for and used to control refractory symptoms in cancer patients who have been inserted into a palliative care programme. PST is often considered to be responsible for speeding up death and has been defined by some as slow euthanasia. Methods: The primary objective of this multi-centre, observational study is to evaluate the overall survival of two cohorts of patients prospectively recruited in several Hospices, one given palliative sedation and the other managed as per routine hospice practice. The patients were matched for sex, age class (>65, >65 years), reason for admission (psychosocial, uncontrollable symptom, terminal phase), Karnofsky Performance Status (10–20, 30–40, >50), and outcome of admission. Overall Survival was estimated using the Kaplan-Meier method and the comparison of survival curves was performed by log-rank test. Results: From March 2005 to December 2006, 518 patients of either sex and any age were recruited; 267 belonged to the cohort of sedated patients (A) and 251 to the cohort of non sedated patients (B). The percentage of sedated patients out of the entire population assisted during the period of the study was 25.1%. The mean duration of sedation was 4 days, while the median duration was 2 days. Median survival from the time of admission to the hospice for cohort A patients was 12 days (95% CI: 10–14), while that of cohort B patients was 9 days (95% CI: 8–11) (logrank=0.95, p=0.330) (unadjusted HR=0.92, 95% CI: 0.77–1.09). Conclusions: Our results indicate that PST does not shorten survival when carried out in an appropriate manner and that it does not require the principle of double effect to be justified ethically. Supported by Istituto Scientifico Romagnolo per lo Studio e la Cura dei Tumori, Meldola (FC), Italy.

112 Oral Presentation
Palliative Sedation
The use of continuous deep sedation for patients nearing death in the Netherlands: a descriptive study
Authors: Judith Rietjens Public Health Erasmus MC NETHERLANDS
Agnes van der Heide Department of Public Health, Erasmus MC Rotterdam NETHERLANDS
Bregje Onwuteaka-Philipsen Department of Public and Occupational Health, Institute for Research in Extramural Medicine, VUMC Amsterdam NETHERLANDS
Johannes van Delden Julius Centre for Health Sciences and Primary Care, University Medical Centre Utrecht Utrecht NETHERLANDS
Paul van der Maas Department of Public Health, Erasmus MC Rotterdam NETHERLANDS
Hilde Buting Department of Public Health, Erasmus MC Rotterdam NETHERLANDS
Background: The practice of continuous deep sedation until death has received increased attention in medical, ethical and societal discussions about medical decision-making and end-of-life care. We aimed to study this practice in 2005 in the Netherlands, and compare it with findings from 2001.

Methods: Design: Questionnaire study about random samples of deaths reported to the central death registry of Statistics Netherlands in 2005 and 2001. Participants: Reporting physicians received a questionnaire about the medical decisions that preceded the patient’s death. Response percentage 2005: 78%, n=6860; response percentage 2001: 74%, n=5617. Main outcome measures: Frequency and characteristics of continuous deep sedation (types of patients, drugs used, duration, estimated life-shortening effect, palliative consultation), requests for euthanasia. Results: Continuous deep sedation was used in 8.2% (confidence interval: 7.7% – 8.7%) of all deaths in the Netherlands in 2005. In 86% of these cases, it was used in conjunction with possible hastening of death. This concerned 7.1% (CI: 6.6%-7.6%) of all deaths as compared to 5.6% (CI: 5.0%-6.2%) in 2001 (p=0.00). This increase occurred mostly among general practitioners (p=0.00) and among cancer patients (47% of sedated patients had cancer in 2005 versus 33% in 2001). Sedation was in 83% of the cases induced by benzodiazepines and had a duration of less than one week in 94%. Nine percent of the physicians had consulted a palliative expert. Conclusions: The increased use of continuous deep sedation for patients nearing death in the Netherlands and the limited use of palliative consultation suggests that this practice is increasingly considered as part of regular medical practice. Further research is needed to elucidate the underlying motives for the use of continuous deep sedation and to study its effects on the quality of dying for patients and relatives.

114 Oral Presentation

Palliative Sedation
Monitor palliative sedation therapy in terminal illness patients with refractory symptoms in hospices. Use of modified Ramsay Scale and Bispectral Index (BIS)

Authors: Elio Spoldi Unità Operativa di Cure Palliative Istituti Ospitalieri di Cremona-Hospice ACCD ITALY
Michela Papi Associazione Cremonese Cur a del dolore Cremona ITALY
Donatella Giannunzio Azienda Istituti Ospitalieri di Cremona Cremona ITALY
Federica Santini Associazione Cremonese Cur a del dolore Cremona ITALY

The literature shows a gap of informations about criteria used to decide to start sedation, patient’s consent, minimal level to obtain sedation and tools to measure it. (a) Identify the incidence of cases where Palliative Sedation Therapy (PST) is necessary because of refractory symptoms; (b) Verify the patient’s or family’s consent; (c) Check the efficacy of modified Ramsay scale (RS) in monitoring the level of sedation; (d) Establish the minimal level of sedation to obtain symptoms’ control; (e) Compare RS with Bispectral Index (BIS). This is a prospective study. The population is our Hospice cancer inpatients divided in two groups: a) pat with refractory symptoms admitted from 07/01 to 08/31/2007; b) pat with refractory symptoms admitted from 11/01 to 12/31/2007. We filled a schedule for each pat with: clinical datas, pat’s awareness and consent to PST. Sedation started using Midazolam via s.c or i.v. in continuous (0.02 mg/kg/h) and increased on the basis of clinical response. Level of sedation is measured with modified RS, registered every 6 hours. We enrolled in group a 24 pat with refractory symptoms for whom we used PST. Refractory symptoms were: (a) delirium 9%; (b) dyspnoea 50%; pain 33%; (c) vomiting 9%. We obtained 11 pat’ consent; the others 13 weren’t able to express it. Symptoms’ control with PST was reached with: (a) RS 3 in 4 pat; (b) RS 4 in 13 pat; (c) RS 5 in 5 pat. From the beginning of PTC survival time was 45.2 ± 49.5 hours (range 2–171). Average midazolam dose to have symptoms’ control was 0.035 mg/kg/h (range 0.02–0.06 mg/kg/h). In group b we enrolled 7 pat treated with PST. We made one registration with BIS before PST and one during PST together with RS. We’ve had the consent for all. Symptoms’ control was reached with: (a) RS values from 3 to 4; BIS values from 80 to 45. From this first data RS and BIS seem to be the most indicated to obtain the correct level of sedation not in an empirical way to avoid too light or too deep sedation.

115 Invited Lecture

EU Funded Research Projects And Collaboratives

EPCRC – European Palliative Care Research Collaborative

Authors: Stein Kaasa Palliative Medicine Unit St. Olav’s Hospital NORWAY representing the EPCRC

EPCRC consists of eight participating centres from six European countries (www.epcrc.org). The collaborative is funded for three years from the end of 2006 to the end of 2008. The overall objectives are to develop novel genetic methods for prediction of opioid responses and individual variation of cachexia, and methods for assessment and classification of pain, cachexia and depression. (1) To identify genes and genetic variation relevant for inter-individual variation in opioid responses and genetic variation that may identify patients at particular risk for developing cachexia; (2) To improve classification and assessment of pain, depression and cachexia by computer assisted approaches; (3) To combine the new knowledge of symptoms, genomics and assessment in an internet-based system for implementation of European evidence-based guidelines, which will include standardized assessment and individualized treatment plans for pain, depression and cachexia; (4) To develop a long lasting European Collaborative in palliative care cancer research. The work plan is followed according to the document of work and an updated presentation of the recent research findings will be given at this symposium.
The outputs of this project will be of interest to patients and carers, healthcare professionals and organisations, researchers, providers of education and national and international policy makers. A variety of media will be used to disseminate the findings, including one workshop of external ‘experts’ and a final international conference. Dissemination: The outputs of this project will be of interest to patients and carers, healthcare professionals and organisations, researchers, providers of education and national and international policy makers. A variety of media will be used to disseminate the findings: – Publications in peer reviewed journals, conferences, workshops, seminars, symposiums. The diversity of country of origin of the 9 partners will ensure exposure of the findings in national and international forums. It is envisaged that the current collaboration will continue to work together to undertake research projects identified by this work.

**EU Funded Research Projects And Collaboratives**

**PRISMA reflecting the positive diversities of European priorities for research and measurement in end of life care**

**Authors:** Richard Harding Palliative Care and Policy King's College London United Kingdom

Barbara Gomes King's College London London United Kingdom

Marjolein Gyselk King's College London United Kingdom

Stein Kaasa St. Olavs Hospital, Palliative Medicine Unit Trondheim Norway

Claudia Bausewein King's College London London United Kingdom

P Lopes Ferreira King's College London London United Kingdom

Luc Deliens Vrije Universiteit Amsterdam-VUMC Amsterdam Netherlands

N Derycke Vrije Universiteit Amsterdam-VUMC Amsterdam Netherlands

Luc Deliens Vrije Universiteit Amsterdam-VUMC Amsterdam Netherlands

N Derycke Vrije Universiteit Amsterdam-VUMC Amsterdam Netherlands

Irene Higginson King's College London United Kingdom

**Background:** There is a lack of co-ordination for collaborative international high quality research in end of life cancer care. Main reasons include: a lack of agreement on what constitutes end of life cancer care across Europe, lack of information on public or clinical priorities for research in Europe to help funders prioritise, and variations in measurement limiting systematic reviews, original studies and quality measurements. **Aims:** PRISMA aims to inform best practice and harmonise research in end of life care for cancer patients across Europe through comparison and exchange of approaches and experiences of measurement and research priorities. **Objectives:** The work packages will undertake actions to identify cultural differences defining and shaping end of life care, establish public and clinical priorities, and draw out current best practice in research and resources in both research and quality measurements. It will use as a model experiences with outcome measures currently being used by researchers and clinicians in EU and African countries. By co-ordinating the use of measurement and research practices in end of life care research across Europe there will be a platform from which future research can be launched. The value of incorporating wide public and clinical consultation into the programme is to identify key priorities, in a field where the need for research is great. The programme will develop web based resources providing information on best practice for research measurement and quality improvement and facilitate a long lasting EU collaborative on end of life cancer care. 11 partners in 8 EC countries, plus involvement from a Pan-African partner, are participating.

**EU Funded Research Projects And Collaboratives**

**Best practices in palliative care in Europe**

**Authors:** Kris Vissers The Raboud University Nijmegen Medical Centre Netherlands

In cooperation with institutes in seven European countries, an international study takes place in order to describe ‘best practices in palliative care’ in Europe. The project is financed by PHEA (Public Health programme of the EU). The project is coordinated by Kris Vissers (Netherlands). Partners are from the Netherlands, Belgium (Johan Menten), UK (Sam Ahmedzai), Spain (Xavier Gomez-Batiste), Germany (Eberhard Kläschik), France (Jean-Marc Mollard) and Poland (Wojciech Leppert). The project runs from October 2007 till October 2010. Although several European countries have national initiatives regarding best practices for palliative care, attention to the early initiation of palliative care and the adoption of an integrated approach is largely lacking. International differences also exist in health care organisation, moral attitudes towards palliative care, expectations, services, terminology, treatment, perceptions, legal embedding and funding of the care (Higginson, 2005). The availability of quality of palliative care indicators and assessment instruments will help patients, family caregivers, care providers, policy makers and ministries of health to evaluate the care provided. An internationally valid, reliable and feasible set of indicators and assessment instruments are also needed to describe, compare and improve the palliative care available in Europe and strive towards ‘best practices in palliative care.’ **Objectives:** 1) to describe the different models for the delivery of palliative care in the participating European countries; 2) to make an inventory of those multidisciplinary guidelines and indicators concerned with the early initiation of palliative care and adoption of an integrated approach to the delivery of palliative care; 3) to establish a set of quality indicators for the early initiation and integrated delivery of palliative care for subsequent validation in an international consensus procedure (written Rand-Delphi procedure) involving patients, family caregivers, clinicians and payers/insurers (i.e. identification of a core set of indicators common to all of the participating countries and country-specific indicators); and 4) to identify best practices with regard to the early initiation and integrated delivery of palliative care using the core set of indicators. **Methods:** literature review, qualitative study, modified Rand Delphi procedure, practice test.

**EU Funded Research Projects And Collaboratives**

**Normolife Development of new therapeutic substances and strategies for treatment of pain in patients with advanced stages of cancer**

**Authors:** Andrzej Lipkowski Medical Research Centre, Polish Academy of Science Poland

Prolonging life expectation of patients with advanced cancer could be done by modern medicine. However, progressive pain that is associated with progression of the disease is a major factor that destructs last moments of life. Currently, severe and uncontrolled pain is a major reason of requesting euthanasia. Application of oral pills (morphine) or transdermal patches (fentanyl) with lipophyllic analgesic drugs is the most common treatment of cancer pain. These compounds penetrating into central nervous system produce side effects (respiratory depression, constipation, tolerance, sedation, etc) to such extend that pain treatment is reduced by doctors or refused by
the patients. Therefore, development of new types of analgesics is one of the urgent needs of modern medicine. In reply to these needs, the international consortium for development of new generation of analgesics has been created. Development of selective compounds interacting with one target receptor system is a traditional way of search of new medicines. Unfortunately, in the case of neuronal system, its strong plasticity resulted in fast adaptation to medicines that induced tolerance and sometimes dependence to chronically used drugs. To resolve this problem creation of multitarget medicines has been proposed by our consortium. The possibility of significant modulation of metabolism, biological membrane permeability and receptor selectivity is advantage of designed new molecules based on peptide skeleton. In addition, peptide structure creates possibility to develop multitarget molecules that hybridize pharmacophores of various neuropeptides involved in pain signal transmissions, inhibitions or modulations. Acknowledgment: Project partially supported by EU grant Normolife (LSHC-CT-2006-307733).

120 Oral Presentation
Non Cancer NeuNed: a qualitative assessment for palliative care needs of people severely affected by neurodegenerative conditions
Authors: Simone Veronese care palliative Fondazione F.A.R.O. onlus ITALY
Gloria Gallo Fondazione F.A.R.O. onlus Torino ITALY
Alessandro Valle Fondazione F.A.R.O. onlus Torino ITALY
David J Oliver Kent Institute of Medicine and Health Sciences, University of Kent Canterbury UNITED KINGDOM

Background: People severely affected by neurodegenerative conditions experience many symptoms and other psychosocial and spiritual problems, similar to those of cancer patients. As a part of a PhD program in palliative care at the University of Kent a project has been developed to assess people severely affected by Amyotrophic Lateral Sclerosis (ALS), Multiple Sclerosis (MS), Parkinson’s Disease (PD), Multisystems Atrophy (MSA) and related disorders and to provide and evaluate, a new specialist palliative care service in Turin area. Methods: In order to assess palliative care needs of these population living in Turin area 22 in depth interviews have been conducted with patients and their carers – 9 ALS, 7 MS, 5 PD and 1 MSA. 3 focus groups of professionals, including neurologists, lung specialists, physiotherapists and speech and language therapists were held to analyse their professional point of view. Content analysis of the transcript verbatim has been performed. Results: Patients and carers reported a number of physical uncontrolled symptoms – pain, breathlessness, drooling, dysphagia, communication impairment, urinary and bowel problems, movement disorders and difficulties in end of life decisions. Psychological needs included fear, anxiety, depression, loss of control, feeling ashamed because of disabilities, feelings of being overwhelmed or unable to cope. Social concerns were of isolation, economic problems, loss of job, need to struggle to obtain what is needed, caregiver burnout. Spiritual themes were expressed included questions of meaning of their experiences, rage and not acceptance of the illness, sense of guilt, and end of life decisions. All patients expressed the need for improved and coordinated care at home. The professional groups also expressed the need for a co-ordinated approach and palliative care for these patients. Conclusions: This initial study confirms the high prevalence of need in this population. A specialist palliative care service is being developed to help meet many of these needs, with a specific domiciliary and hospice service for this population in the Turin area.

121 Oral Presentation
Non Cancer Symptom trajectories in end-stage renal disease – understanding the impact of symptoms over time for non-cancer patients
Authors: Fliss Murtagh Palliative Care, Policy & Rehabilitation King’s College London UNITED KINGDOM
Polly Edmonds King’s College London London UNITED KINGDOM
Paul Donohoe King’s College Hospital London UNITED KINGDOM
Karen Jenkins East Kent Hospitals NHS Trust Canterbury UNITED KINGDOM
Julia Addington-Hall Southampton University Southampton UNITED KINGDOM
Irene J Higginson King’s College London London UNITED KINGDOM

Background: Most symptom evidence is cross-sectional. Longitudinal study is difficult but adds rich insight into the impact of symptoms over time. This longitudinal study describes symptom trajectories in advanced chronic kidney disease (CKD) managed without dialysis. Methods: Longitudinal monthly survey of symptoms in 3 UK renal units using the Memorial Symptom Assessment Scale-Short Form, in patients with stage 5 CKD without dialysis. Descriptive & exploratory analysis using visual graphical/growth curve analysis techniques to map symptoms over time and derive criteria to define/group these trajectories. Multivariable regression analysis to evaluate the relationship between trajectory and predictor variables. Results: 73 patients (mean age 82, SD 6.6) recruited (response rate 62%). 49(67%) died during follow-up. 57(78%) had data at >3 time points; median follow-up 10 months(range 4–23). Mean entry eGFR 11.2 mL/min(SD 2.8), with median survival 306 days(95% CI 221–356), 1-year survival 34%. Overall, symptoms increased steadily in the 3 months to death, with mean (SD) Global Distress Index of 1.49 (0.39), 1.61 (0.48) & 1.98 (0.49) at 3, 2 & 1 months before death respectively. Derived criteria to define individual trajectories were initial symptom score, linear slope of trajectory & degree of fluctuation over time. Three distinct trajectories (stable, steadily increasing & fluctuant) were identified. Increase in symptoms before death was common to all 3 trajectories. Renal diagnosis, comorbidity & functional status did not predict individual trajectories. Conclusions: Patterns of symptoms over time & towards death in this population have both contrasting & common features. Individuals follow identifiable different trajectories but as death nears these merge into a common pattern of steady increase. Models of non-cancer palliative care need to address this symptom increase towards death yet be flexible to respond rapidly to the needs of those with a fluctuant trajectory.

122 Oral Presentation
Non Cancer Multiple Sclerosis and Palliative Care: Different perspectives from patients and health professionals on unmet needs in severely affected patients in Germany
Authors: Maren Galushko Department for Palliative Medicine University Hospital of Cologne GERMANY
Heidrun Golla University Hospital of Cologne, Department for Palliative Medicine Cologne GERMANY
Holger Pfaff University of Cologne, Cologne Center for Health Services Research Cologne GERMANY
Claudia Kaiser University of Cologne, Cologne Center for Health Services Research Cologne GERMANY
Ute Karbach University of Cologne, Cologne Center for Health Services Research Cologne GERMANY
Raymond Valtz University Hospital of Cologne, Department for Palliative Medicine Cologne GERMANY

Background: Aim of this project was to assess unmet needs in severely affected Multiple Sclerosis (MS) patients in Germany from different perspectives. Methods: Episodic in depth-interviews were conducted with 15 patients feeling severely affected by MS and 12 relatives. In addition focus groups and expert interviews were held with 23 health professionals. The interview guide covered questions about feeling severely affected, perceived needs and the understanding of the concept of “palliative care”. Interviews and focus groups were recorded, transcribed verbatim and analysed by qualitative content analysis. Results: Health professionals were 13 physicians, 3 social workers and 7 nurses. Patients included 6 men and 9 women, realives were 7 women and 5 men. Analysis of interviews and focus groups revealed a range of needs in four main categories (family/friends; health care; managing everyday life; maintaining biographical continuity). Relatives perceive deficits in the category “Maintaining
biographical continuity” to a similar extent as do patients. In addition, they note unmet needs in the categories “Family friends” and “Managing everyday life” in a larger degree than do patients. In contrast to patients, health professionals, especially physicians, focus more on unmet needs in the category “Health care system”. Problems in the domains of everyday life and biography are mentioned to a lesser extent. **Conclusions:** Maintaining continuity, including coping with change and losses, is central to patients. Because the professionals’ perspective differs from patients’ it is necessary for every neurologist to focus more on needs in the domains of everyday life, biography and family. The perspective of palliative medicine can contribute to meet unmet needs of severely affected MS patients. To reach this aim a close cooperation of general and specialized palliative services is necessary.

### 123 Oral Presentation

**Non Cancer**

**Is dignity compromised in the care of patients with advanced COPD?**

Authors: Cathy Shipman Department of Palliative Care & Policy King’s College London UNITED KINGDOM

Suzanne White King’s College London London UNITED KINGDOM

Patrick White King’s College London London UNITED KINGDOM

**Background:** Most threats to dignity have focused on loss of social dignity related to the views and actions of others. A model has been developed for patients with advanced cancer. The aim of this presentation is to explore whether dignity is compromised in the care of patients with advanced COPD. **Methods:** A prospective cross-sectional study of patients with advanced COPD living at home. Patients were recruited through family doctors according to two of: FEV1 predicted <30%, hospital admission for acute exacerbations, cor pulmonale or home oxygen. Semi-structured interviews and spirometry tests were undertaken. Analysis included chi squared related to ‘care tenor’ but also to stigma over smoking and were distressing, critically or abruptly; demeaning reaction to their appearance, to breathlessness and fatigue. **Results:** Ten patients opted for dialysis and eight for SCA. Age, weight, KPS and CCMS were similar in both groups. Both groups had high symptom burden and poor QoL with no statistical difference. Those on dialysis suffered greater health burden i.e. time travelling to hospital, attending appointments, receiving treatment, and inpatient stays. Three patients in the dialysis and five in the SCA group died during the study (1 and 3 of renal failure respectively). The research process was acceptable to patients, carers and staff. **Conclusions:** Dialysis does not seem to improve QoL or reduce symptom burden in patients with ESRD and high co-morbidity or poor performance status and may increase health burden. More research is needed to explore this issue further. Funded by hospital renal department.

### 125 Oral Presentation

**Non Cancer**

**Palliative care in acute stroke: research findings and recommendations**

Authors: Sheila Payne International Observatory on End of Life Care Lancaster University UNITED KINGDOM

Amanda Jones Sheffield Teaching Hospitals NHS Trust Sheffield UNITED KINGDOM

Chris Burton Bangor University Bangor UNITED KINGDOM

Julia Addington-Hall University of Southampton Southampton UNITED KINGDOM

**Background:** Stroke results in high levels of mortality and morbidity, and can cause wide range of distressing symptoms and problems. It is the third most common cause of death in the UK, with 26,400 people dying each year, and direct costs to the NHS of around £2.8 billion. About 20% of patients die in acute phase of stroke (first month). This study aimed to assess level of palliative care need in patients with acute stroke, and to explore options to enhance palliative care provision. **Methods:** Data were collected from patients and family carers in two stroke units in Northern England using a validated questionnaire (SPARC) to assess palliative care need, structured reviews of medical records and interviews. Analysis used SPSS for quantitative data and thematic analysis for interview transcripts. **Results:** Data were collected from 191 cases of acute stroke. Evidence from SPARC indicated that there were high levels of morbidity in terms of: tiredness, weakness, communication and visual difficulties. Half the sample reported pain. Psychological morbidity in over 50% the sample related to: anxiety, low mood, feeling everything was an effort but less than 20% expressed suicidal ideation. However, 25% were worried about death and dying. Concerns about dependency, difficulties with daily activities were reported by two thirds. Over 50% were worried about the impact of the stroke on their family. Qualitative data illustrate challenges faced by patients and families in recognising that the patient may be near the end of life in patients with significant co-morbidity or poor performance status.

### 124 Oral Presentation

**Non Cancer**

**SCAD: Supportive Care Alone or Dialysis? A longitudinal observational study assessing symptoms, health burden and quality of life in patients with significant co-morbidity or poor performance status**

Authors: Sarah MacLaran Renal Department University Hospital of Coventry and Warwickshire Coventry UNITED KINGDOM

Andrew Stein University Hospital of Coventry and Warwickshire Coventry UNITED KINGDOM

Maria Gomez University Hospital of Coventry and Warwickshire Coventry UNITED KINGDOM

John Fenton University of Warwick Coventry UNITED KINGDOM

**Background:** Patients with End Stage Renal Disease (ESRD) have high symptom burden and poor Quality of Life (QoL). The UK prevalence of chronic kidney disease is approximately 550000 with 105 million a year commencing dialysis. Increasingly, older patients with co-morbidity receive dialysis with seemingly little survival benefit and an unclear effect on symptoms and QoL. Few studies have been reported to enable evidence based treatment decisions to be made. RCTs pose ethical and methodological challenges in this area. We report a pilot longitudinal comparative observational study of end of life care. We explore symptoms, health burden, QoL and quality of death of patients with ESRD and high co-morbidity or poor performance status opting for dialysis or supportive care alone (SCA). **Methods:** Patients with ESRD (GFR<15mls/min) with Charlson Co-Morbidity Score (CCMS) >5 or Karnofsky Performance Score (KPS) <50 were recruited. Patients choosing dialysis or SCA were followed up every eight weeks using Leicester Uraemic Symptom Scale, FACIT-Spirituality Scale and a checklist to estimate health burden. Quality of Dying Appar score and carer descriptive accounts explored the dying phase. Data was analysed using Genstat. **Results:** Ten patients opted for dialysis and eight for SCA. Age, weight, KPS and CCMS were similar in both groups. Both groups had high symptom burden and poor QoL with no statistical difference. Those on dialysis suffered greater health burden i.e. time travelling to hospital, attending appointments, receiving treatment, and inpatient stays. Three patients in the dialysis and five in the SCA group died during the study (1 and 3 of renal failure respectively). The research process was acceptable to patients, carers and staff. **Conclusions:** Dialysis does not seem to improve QoL or reduce symptom burden in patients with ESRD and high co-morbidity or poor performance status and may increase health burden. More research is needed to explore this issue further. Funded by hospital renal department.
life. Conclusions: This study demonstrates that stroke patients experience high levels of morbidity and that more effective general palliative care support is required for more dependent patients, and those facing the end of life in stroke units. Recommendations for national policy include supporting staff in developing skills in communicating about end of life concerns.

126 Oral Presentation

Other symptoms: Respiratory, Cognitive and Cachexia Randomised, placebo-controlled trial of nebulised furosemide for breathlessness in patients with cancer

Presenting author: Alpna Chauhan
Authors: Andrew Wilcock Macmillan Specialist Palliative Cancer Care Unit University of Nottingham, Hospitals NHS Trust UNITED KINGDOM Alpna Chauhan Hayward House Specialist Palliative Cancer Care Unit, Nottingham University Hospitals NHS Trust, Cit Nottingham UNITED KINGDOM Jackie Frisby Hayward House Specialist Palliative Cancer Care Unit, Nottingham University Hospitals NHS Trust, Cit Nottingham UNITED KINGDOM Mary Lewis Hayward House Specialist Palliative Cancer Care Unit, Nottingham University Hospitals NHS Trust, Cit Nottingham UNITED KINGDOM Abi Walton Hayward House Specialist Palliative Cancer Care Unit, Nottingham University Hospitals NHS Trust, Cit Nottingham UNITED KINGDOM Cathann Manderon Hayward House Specialist Palliative Cancer Care Unit, Nottingham University Hospitals NHS Trust, Cit Nottingham UNITED KINGDOM Visharat El Khooury Hayward House Specialist Palliative Cancer Care Unit, Nottingham University Hospitals NHS Trust, Cit Nottingham UNITED KINGDOM Luke Feathers Hayward House Specialist Palliative Cancer Care Unit, Nottingham University Hospitals NHS Trust, Cit Nottingham UNITED KINGDOM Paul Howard Hayward House Specialist Palliative Cancer Care Unit, Nottingham University Hospitals NHS Trust, Cit Nottingham UNITED KINGDOM Sarah Bell Hayward House Specialist Palliative Cancer Care Unit, Nottingham University Hospitals NHS Trust, Cit Nottingham UNITED KINGDOM Anne Tattersfield Hayward House Specialist Palliative Cancer Care Unit, Nottingham University Hospitals NHS Trust, Cit Nottingham UNITED KINGDOM

Background: Breathlessness is a common and difficult symptom to treat in patients with cancer. Case reports suggest that nebulised furosemide can relieve breathlessness in such patients but few data are available. Methods: Patients with primary or secondary lung cancer and a Dyspnoea Exertion Scale score of 3 or more were recruited. Following familiarisation patients received either nebulised furosemide 40mg or nebulised 0.9% saline under double-blind conditions or no treatment, in random order on three consecutive days. Patients undertook number reading and arm exercise tests to assess breathlessness and its impact, and were asked to report subjective differences between furosemide, saline and no treatment in the outcomes of study days and the change in spirometric values following nebulised furosemide and saline. Results: Fifteen patients took part. There were no differences between furosemide, saline and no treatment in the outcomes of the number reading test (e.g. mean number read per breath was 6.7, 6.4 and 6.7 respectively) or arm exercise test (e.g. mean Borg score at maximum workload was 2.3, 2.5 and 2.7 respectively). No adverse effects were reported, although there was a small fall in FEV1 and FVC following saline. Six patients considered that their breathlessness improved with nebulised treatment, three preferring saline, one furosemide and two reporting they were of equal benefit. Conclusions: Our findings do not support a beneficial effect from nebulised furosemide in patients with cancer-related breathlessness. Funded by the Hayward House Cancer Care Trust.

127 Oral Presentation

Other symptoms: respiratory, cognitive and cachexia respiratory symptoms and palliative care needs in lung cancer patients

Authors: Deans Buchanan Palliative Medicine NHS Tayside UNITED KINGDOM Pamela Levack NHS Tayside Dundee UNITED KINGDOM Alastair Thompson University of Dundee Dundee UNITED KINGDOM Lee Baker University of Dundee Dundee UNITED KINGDOM Robert Milroy Stobhill Hospital Glasgow UNITED KINGDOM

Background: Lung cancer is the commonest cause of cancer related deaths worldwide. In Britain it accounts for 25% of all cancer deaths. The prognosis remains poor with an overall five year survival of around 7%. Symptom distress is higher than other cancers and there is a large psychosocial burden. Palliative care is now considered to be an integral part of lung cancer management and is often relevant from time of diagnosis. The palliative outcome scale (POS) has been developed and validated in several clinical settings as a tool to identify and quantify palliative needs. Elevated C-reactive protein (CRP) and reduced albumin are associated with shorter survival. This study compared respiratory symptoms, CRP, albumin and POS in lung cancer patients attending an out-patient clinic. Methods: 115 patients attending a lung cancer clinic completed a questionnaire containing the POS and 3 questions rating the severity of dyspnoea, cough and haemoptysis. Adverse prognostic markers (CRP and albumin) of each patient were measured. Review of case notes identified other data points. Results: The presence and severity of dyspnoea, cough and haemoptysis were associated with increased palliative needs as measured by POS. (POS 0–4 Vs 5–9, p=0.002, POS 5–9 Vs 10–14, p<0.001, POS 10–14 Vs 15+, p=0.042). Albumin and CRP were not associated with POS. Conclusions: The symptoms of dyspnoea, cough and haemoptysis in lung cancer out-patients are associated with their palliative needs. There was no association with albumin or CRP. These results emphasise the importance of identifying the presence and severity of physical symptoms. This simple approach may allow early identification of patients who are likely to benefit from specialist palliative care services.

128 Oral Presentation

Other symptoms: respiratory, cognitive and cachexia Beyond adherence: self-management for breathlessness in COPD

Authors: Maryjole Gysels Palliative Care, Policy and Rehabilitation King’s College London UNITED KINGDOM Irene Higginson Kings College London London UNITED KINGDOM

Background: Studies of COPD patients’ experience of care have documented poor service delivery. Most of the effort of controlling breathlessness happens at home. Methods: The aim of this study was to understand how patients and carers respond to breathlessness, what their self-care entails and what they experience as helpful. It had a qualitative design and it was part of a wider programme “Improving Breathlessness”. A purposive sample of 18 COPD patients were included. Data were collected through participant observation during outpatient consultations and in-depth interviews at a large hospital, and in the community in London. Analysis was from a Grounded Theory perspective. Additional coding was conducted on five outlier cases identified through the constant comparative method. Verification of the data involved data and methodological triangulation. Results: Information regarding the management of breathlessness was lacking and access to treatment was difficult. Five out of the 18 patients reverted to alternative strategies to manage their breathlessness. Those who coped successfully developed expertise and managed their symptoms...
competently within the limits of current care. They showed that adequate self-management requires a constellation of skills and behaviours. They were involved in pulmonary rehabilitation and had adopted this as a way of life. Benefits and challenges to participation in these programmes were identified. Conclusions: A minority of patients practiced self-management and maintained an acceptable quality of life through self-acquired expertise relating to symptoms, medication and help-seeking. Well-being needed to be understood, not as the end point but as a precarious balance, needing skillful maintenance and hard work. The findings have implications for adherence, patient-involvement, and responsibility in the management of COPD.

129 Oral Presentation

Other symptoms: Respiratory, Cognitive and Cachexia
Sympathetic nervous system activity in patients with cancer: a pilot study

Authors: Ashika Sequeira Faculty of Medicine and Health Sciences University of Nottingham UNITED KINGDOM
Alpna Chauhan Hayward House Macmillan Specialist Palliative Care Unit, Nottingham University Hospitals NHS Trust Nottingham UNITED KINGDOM
Cathann Manderson Hayward House Macmillan Specialist Palliative Care Unit, Nottingham University Hospitals NHS Trust Nottingham UNITED KINGDOM
David Wasley University of Wales Cardiff UNITED KINGDOM
Andrew Wilcock University of Nottingham Nottingham UNITED KINGDOM

Background: Overactivity of the sympathetic nervous system (SNS) promotes catabolism and may contribute to cachexia in chronic heart failure and COPD. This study examined for evidence of SNS overactivity in patients with cancer cachexia.

Methods: Patients with weight loss of more than 5% since diagnosis and age-matched healthy controls were studied. Those with conditions or taking drugs known to impact the SNS, hypothalamic-pituitary-adrenal axis or the measurement of heart rate variability (HRV) were excluded. A 5min ECG recording was taken under controlled breathing conditions. HRV was analysed by power spectral analysis (Chart software v5.5.4, AD Instruments, Oxford, UK). Mean values of serum cortisol and urinary catecholamines/metanephrines were calculated from two consecutive 9am blood samples and 24h urine collections respectively. Differences were analysed using the Mann-Whitney U test.

Results: 9 patients with a mean (SD) age of 59 (13) years, percentage weight loss of 17 (12) and an ECOG performance status of 0–3 were recruited along with 9 healthy controls. Heart rate did not differ between the groups. Compared to the control group, all seven aspects of HRV assessed were lower in the patient group, four significantly so (table). Serum cortisol, urinary catecholamines or metanephrines did not differ significantly. HRV component

130 Oral Presentation

Other symptoms: Respiratory, Cognitive and Cachexia
Modafinil for cognitive dysfunction in advanced cancer: A double-blind, randomized, cross-over, placebo-controlled trial

Authors: Lena Lundorff Department of Palliative Care Regions Hospitala Herning DENMARK
Birte Jonsson Regions hospitala Herning Herning DENMARK
Per Sjøgren Multidisciplinary Pain Centre Copenhagen DENMARK

Background: A minority of patients practiced self-management and maintained an acceptable quality of life through self-acquired expertise relating to symptoms, medication and help-seeking. Well-being needed to be understood, not as the end point but as a precarious balance, needing skillful maintenance and hard work. The findings have implications for adherence, patient-involvement, and responsibility in the management of COPD.

Conclusions: A minority of patients practiced self-management and maintained an acceptable quality of life through self-acquired expertise relating to symptoms, medication and help-seeking. Well-being needed to be understood, not as the end point but as a precarious balance, needing skillful maintenance and hard work. The findings have implications for adherence, patient-involvement, and responsibility in the management of COPD.

Conclusions: Twenty-eight cancer patients with a fatigue score of 50 mm or more on the Edmonton Symptom Assessment System (ESAS), Hgb > 6.5mmol/l, creatinine< 150 mmol/l, total se-Ca < 2.7 mmol/l and Karnofsky Performance Status 40–70 were included. All medications were kept stable one week before and during the trial, however, the patients were allowed to use supplemental doses of short acting opioids for breakthrough pain. On day 1 the patients were randomly assigned to receive 200 mg Modafinil orally or placebo and on day 4 crossed-over to the alternative treatment. Finger Tapping Test (FTT), Trail Making Test (TMT) and ESAS were evaluated before tablet intake and again 4.5 hours after. Side effects were registered. Statistics: Wilcoxon signed rank test. Values of p<0.05 were considered to be statistically significant. Results: FTT for the dominant hand as well as TMT were statistically significantly improved on modafinil (p-values = 0.006 and 0.042, respectively). On ESAS depression and drowsiness also improved statistically significantly (p-values=<0.001 and 0.038, respectively). There were no significant differences between side effects on the two treatments. Conclusions: Modafinil was significantly superior to placebo regarding two cognitive tests of psychomotor speed and attention. Furthermore, depression and drowsiness were significantly counteracted by modafinil.

131 Oral Presentation

Other symptoms: Respiratory, Cognitive and Cachexia
A cluster randomised controlled trial of Cognitive Behaviour Therapy (CBT) For common mental disorders in palliative care patients

Authors: Kathy Burn Home Care St Christopher’s Hospice UNITED KINGDOM
Stirling Moorey South London and Maudsley Foundation NHS Trust Camberwell, London UNITED KINGDOM
Marcia Kapari Institute of Psychiatry, King’s College, London UNITED KINGDOM
Matthew Hotopf Institute of Psychiatry, King’s College, London UNITED KINGDOM
Elizabat Cort St Christophers Hospice Sydenham, London UNITED KINGDOM
Jan Wickings St Christophers Hospice Sydenham, London UNITED KINGDOM
Penny Hansford St Christophers Hospice Sydenham, London UNITED KINGDOM
Barbara Monroe St Christophers Hospice Sydenham, London UNITED KINGDOM

Background: The study aimed to discover if CBT techniques delivered in the homes of patients with terminal illness and delivered by palliative care nurses. The study aimed to discover if CBT techniques delivered in the homes of patients with terminal illness and delivered by palliative care nurses. The study aimed to discover if CBT techniques delivered in the homes of patients with terminal illness and delivered by palliative care nurses. The study aimed to discover if CBT techniques delivered in the homes of patients with terminal illness and delivered by palliative care nurses. The study aimed to discover if CBT techniques delivered in the homes of patients with terminal illness and delivered by palliative care nurses.

Methods: The study estimated a power calculation and aims to provide data to allow power calculations in future. Palliative care nurses were allocated to receive training in CBT or continue their usual practise using a cluster randomisation procedure. All new patients in both groups (N=609) were screened using the Hospital Anxiety and Depression Scale (HADS), the primary outcome measure. Patients with high scores were eligible for the trial. Both groups received usual care, but if randomised to the care of a CBT trained nurse this included CBT focusing on emotional problems. Patients were independently re-assessed 6, 10 and 16 weeks. Statistical analysis used general linear latent and mixed models program within Stata. Results: Consecutive possible cases were visited by the researcher and 80 patients were recruited into the trial. Most of those who were not entered were too ill to participate. Reasons for exclusion from the study are recorded. 46 patients were assessed at the 6 week interval and 34 at the 16 week interval. Attrition was largely due to deterioration in patients’ physical condition. Patients seen by a CBT trained nurse had significantly reduced anxiety scores on one of two primary outcome measures, (p=0.01). This effect is most marked at 16 weeks, with less anxiety cases in...
the CBT group (19% VS 56%); (p=0.04). Depression reduced over time but there were no significant differences between groups. **Conclusions:** It is possible but challenging to carry out a randomised controlled trial in this clinical setting. With the addition of CBT skills to their practise, clinical nurse specialists were able to significantly reduce the anxiety experienced by terminally ill patients.

### 132 Invited Lecture

**Mixed methods**

**Overview of mixed methods: a health services research perspective**

Authors: Julia Addington-Hall School of Nursing & Midwifery University of Southampton UNITED KINGDOM

Breathlessness is a complex multi-dimensional symptom which at present is very hard to palliate. One of the barriers to improving care for this devastating symptom, which affects both patients and carers, has been the difficulty in carrying out adequately powered, well designed clinical trials which would give unequivocal results on the effectiveness of different interventions for breathlessness. Many palliative care interventions are multifaceted and fit the definition of ‘complex’ i.e. ‘built up from a number of components, which may act both independently and interdependently’ used by the MRC. Other trials, such as drug trials, are apparently simpler, in that one intervention only is being tested but as 2 review of the literature on opioids revealed there is little standardization of methodology for even these investigations leading to many trials and little hard evidence. There has been little agreement on the standardization of outcome measures, baseline socio-economic data, the place of quality of life measurement and clinically significant changes in breathlessness scales 3. In order to test any intervention effectively the right methodology must be used. In this presentation different trial methodologies will be explored, including the parallel group RCT the cross over trial 4, 5, the MRC evaluation of complex interventions 1 and Phase II drug studies, with reference to recent trials in breathlessness. The particular difficulties and pitfalls of research in this area will be highlighted and the consensus on research methodology in this area, being developed by the National Cancer Research Institute’s Breathlessness Sub-group will be presented.

### 133 Invited Lecture

**Mixed methods**

**Mixed methods in public health research in palliative care**

Authors: Luc Deliens Dept. of Social Med. Vrije Universiteit Amsterdam-VUMC NETHERLANDS

Public health is the science and art of preventing disease, prolonging life and promoting health through the organised efforts of society. Hence, public health at the end of life is the science and art of preventing suffering and promoting the quality of life of terminally ill patients at the end of life, through the organised efforts of society. According to the World Health Organisation end of life care and have become an important area of public health. In end of life research, there is also a growing number of public health studies. In this presentation we will discuss a mixed method approach in public health research at the end of life. Mixed methods research means adopting a research strategy employing more than one type of research method. The methods may be a mix of qualitative and quantitative methods, a mix of quantitative methods or a mix of qualitative methods. Mixed methods research also means working with different types of data (census data, registration data, survey data, interviews, etc), different kinds of sampling techniques (populations, large or small samples, case studies), different kind of designs (retrospective, prospective) different kind of analyses (induction, deduction), and it may also involve different investigators. Mixed methods approach can also be understood differently as implying the application of different research strategies within one research project, but also as long term strategy in case of a research programme a group that is continuously studying a range of interrelated complex research questions. In the presentation we will demonstrate the use of mixed method research approach in public health research areas such as place of death, end-of-life transitions between care settings, and end-of-life decision making. We will also set out some of the strengths and weaknesses using a mixed methods approach in public health research at the end of life.

### 134 Invited Lecture

**Mixed Methods**

A critical discussion of how we define, assess and research symptom experiences in palliative cancer care: using mixed methods in symptom research

Authors: Carol Tishelman Dept LIME Karolinska Institutet SWEDEN
Lesley Degner Faculty of Nursing, Helen Glass Center for Nursing, University of Manitoba Winnipeg CANADA
M.A.G. Sprangers Dept of Medical Psychology, Academic Medical Center, University of Amsterdam Amsterdam NETHERLANDS

**Background:** Despite major strides in assessment and treatment of many symptoms, we argue that we do not yet adequately address the spectrum of relevant symptom experiences. An underlying assumption in much research appears to be that symptom intensity is equivalent to symptom distress.

**Methods:** We question this assumption, based on data from a study of symptom experiences of 400 people with inoperable lung cancer, interviewed up to 6 times during the 1st year post-diagnosis, which was also the last year of life for most participants. Several structured assessment approaches were used, including the Symptom Distress Scale, the EORTC-QLQ-C30+LC13, & the Thurstone Scale of Symptom Distress (TSSD-LC). An open, inductive, structured freelisting question was used to assess that which was currently MOST distressing, and qualitative interviews were conducted with subsets of participants to better understand specific issues. **Results:** Results clearly indicate that the dimensions of symptom intensity and symptom distress are not equivalent. In this patient group, we found notable consistency among those symptoms associated with distress, with problems with breathing, pain and fatigue most highly ranked on the TSSD-LC. Breathing and pain appear to function as icons representing threats associated with lung cancer, with distress related to the past, present and expectations for the future. We also found less concordance between among ratings of symptom prevalence, intensity and association with distress in subgroups of patients with longest post-interview survival times. Finally, freelisting data indicates that the structured measurement tools used did not adequately cover all the issues reported as most distressing for these patients. **Conclusions:** There appears to be a need for a more prophylactic and proactive paradigm of palliation, which takes consideration to anticipatory distress and individual differences. Symptoms with low intensity but associated with high distress may present challenges for clinical management.

### 135 Oral Presentation

**Pain 2**

**Treatment of time-of-day pain fluctuation with sustained-release hydromorphone in pain-adjusted doses**

Authors: Uwe Junker Pain Therapy and Palliative Care Sana Klinikum Remscheid GERMANY

**Background:** Investigation of pain therapy with sustained-release hydromorphone (HM): 2xday at pain-adjusted dose to manage time-of-day fluctuation in pain intensity. **Methods:** Prospective multi-centre study. Patients with severe pain received HM.* Focus on time-of-day differences in pain intensity. Data taken at baseline, day 3 and 7, between days 14–21. Pain intensity (NRS, 0–10) and quality of life were measured on standardised pain questionnaire; quality of life used summed scores on activity, mood, mobility, normal work, social relationships, sleep, and enjoyment of life (total score 0–70). In first 7 days patient diary recorded pain intensity, general activity, mood (NRS 0 – 10) at night, morning, midday, evening. **Results:** 1243 patients (mean age: 65.3 ±13.0 years). Initial mean daily dose: 13.0 ±8.8 mg; 16.9 ±12.1 mg at the end. Proportion of patients on pain-adjusted dose increased during therapy from 75.8% to 77.7%.

---

*HM: hydromorphone maleate*
Significantly fewer patients on the pain-adjusted dose received adjunct
analgesics (58.0% vs. 70.5%). More than 50% of patients had time-of-day
fluctuation in pain intensity at start of study (mean 5.6 (midday) – 6.5
(night). At day 7, levels had significantly decreased to mean 2.8 (night,
morning, midday) or mean 2.9 (evening). By the end, more patients on
pain-adjusted dosage showed improved pain relief than those on fixed dose
(73.8% vs. 70.5%). Quality of life improved more than 50% overall. On
final exam, physicians rated fluctuation as “much improved” or “improved”
for 88.8% of patients on pain-adjusted dosage. 91.7% of physicians rated
HM efficacy and tolerability as “very good” or “good”. Conclusions: More
than 50% of patients reported time-of-day differences in pain intensity.
Flexible, 2xday HM dosage improved even time-of-day fluctuation in pain
intensity and quality of life; pain levels dropped through pain-adjusted
dosage. * Palladon®, Mundipharma GmbH.

136 Oral Presentation

Pain 2
Quality of life in patients treated with controlled release dihydro-
docodeine and tramadol – results of a prospective, random-
ized, cross-over study
Authors: Wojciech Leppert Chair and Department of Palliative
Medicine Poznan University of Medical Sciences POLAND
Mikołaj Majkowicz Department of Quality of Life Research, Gdansk
Medical University Gdansk POLAND

Background: The aim of the study to assess analgesia, side effects and
quality of life (QL) during dihydrocodeine controlled release tablets (DHC
Continus® 60, 90, 120 mg) and tramadol controlled release tablets
(Tramundin® 100 mg. Tramal Retard® 100, 150, 200 mg) administration to
patients with cancer pain Methods: Prospective, 30 opioid – naive patients
with moderate to severe cancer pain intensity of nociceptive (visceral or
somatic) type treated with non-opioid analgesics, randomised, cross-over,
7 days each no wash – out. Visceral pain 14 patients, bone 10 and mixed 6.
Pain intensity: 24 patients moderate (NRS 3 – 5), 6 severe (NRS > 5).
Analgesia by NRS (Brief Pain Inventory – Short Form), side effects verbal
scale, ESAS, QL by EORTC QLQ C 30. Starting initial dose DHC 2x60
mg, titrated 2x90,2x120 up to 2x180 or 3x120, tramadol 2x100 mg, titrated
2x150, 2x200 up to 2x300 or 3 x 200. Changing drugs – equianalgesic
doses (tramadol = DHC): 2x100 = 2x60, 2x150 = 2x90, 2x200 = 2x120,
2x300 = 2x180. Results: Significant pain relief in both groups but analge-
sia significantly superior in DHC group and there was less nausea and less
dyspnoea. Constipation and drowsiness significantly more intense in DHC
group. Global QL better in DHC group. In both groups side effects did not
correlate with pain intensity or the treatment and respiratory depression not observed.

Conclusions: 1. Dihydrocodeine and tramadol in controlled release tablets
are effective analgesics in the treatment of nociceptive cancer pain of mod-
erate intensity but DHC provided significantly better analgesia. 2. Quality
of life results showed better analgesia and global QL in DHC group and more
intense nausea, less drowsiness and less constipation in tramadol
group. The tolerance of the treatment was good in both groups with no seri-
oside effects like respiratory depression or allergy for the drug. 3. The
second step of the WHO analgesic ladder is important for the treatment of
patients with nociceptive cancer pain of moderate intensity.

137 Oral Presentation

Pain 2
A randomised, double-blind, placebo-controlled, parallel-group
study comparing oral racemic ketamine and S ketamine in the
treatment of cancer-related neuropathic pain
Authors: Marie Fallon Palliative Medicine University of Edinburgh
UNITED KINGDOM
Caroline Bray Beatson Oncology Centre Glasgow UNITED KINGDOM
Angela Boyd University of Edinburgh United Kingdom
Terry Nichols Napp Pharmaceuticals Ltd (now Mundipharma Research
Ltd) Cambridge UNITED KINGDOM

Introduction: Ketamine is an N-methyl-D-aspartate receptor antagonist
and is used to treat neuropathic cancer pain. However, it may cause psy-
chotomimetic effects such as nightmares, illusions, hallucination, or deliri-
um. We examined the effectiveness and safety of gradual dose titration of
ketamine in the treatment of neuropathic pain in advanced cancer patients
prospectively. Methods: After we diagnosed neuropathic pain, which did
not respond to opioids in advanced cancer patients, we started ketamine
10mg/24hr by continuous intravenous infusion and increased the dose by
10mg/24hr every 4–6 hours before the dose exceeded 50mg/24hr. After
50mg/24hr, we increased ketamine by 25mg/24hr every 12–24 hours until
dose was relieved. Results: There were 15 men (62.5%) and 9 women
(37.5%), with an average age of 49.2 years (SD=18.4), ranging from 13 to
74 years of age. The patients had a variety of tumors, with rectum cancer
Conclusions: patients would have continued to have severe uncontrolled pain until death. They all had severe pain despite systemic opioids and adjuvants. The first two patients had failure of epidural opioid/bupivicaine/adjuvant mixtures. Epidural neurolysis was performed using phenol.

Methods: Subjects with moderate to severe, chronic non-malignant low back pain were randomised to oxycodone/naloxone PR (20/10mg or 40/20mg per day), oxycodone PR (20mg or 40mg per day) and matched placebo. Supplemental analgesic use was allowed (oxycodone immediate-release tablets; OxyNorm®; 5mg).

Conclusion: Oxycodone/naloxone PR improves bowel function and reduces laxative use compared with oxycodone PR.

Background: Pain is a common symptom in cancer patients and can be controlled with medical management in 95% of cases. We examine the use of epidural phenol neurolysis where adequate analgesia cannot be achieved with systemic or epidural opioids and adjuvants. Methods: We describe a series of three patients with extensive metastatic disease close to the end of life. They all had severe pain despite systemic opioids and adjuvants. The first two patients had failure of epidural opioid/bupivicaine/adjuvant mixture. The third patient had complex nursing needs due to the presence of 2 indwelling epidural infusions in addition to paraplegia. Epidural neurolysis was performed using phenol. Results: All three patients had complete relief of their pain following epidural neurolysis. Patient 1 and 2 died peacefully 9 and 11 days following the procedure. Patient 3 was discharged home and died 2 months later. We believe without this intervention all three patients would have continued to have severe uncontrolled pain until death.

Conclusions: Phenol is a neurolytic agent with local anaesthetic properties. We believe that in a carefully selected patient group it can be used to alleviate suffering at the end of life.

Background: Pain is a common symptom in cancer patients and can be controlled with medical management in 95% of cases. We examine the use of epidural phenol neurolysis where adequate analgesia cannot be achieved with systemic or epidural opioids and adjuvants. Methods: We describe a series of three patients with extensive metastatic disease close to the end of life. They all had severe pain despite systemic opioids and adjuvants. The first two patients had failure of epidural opioid/bupivicaine/adjuvant mixture. The third patient had complex nursing needs due to the presence of 2 indwelling epidural infusions in addition to paraplegia. Epidural neurolysis was performed using phenol. Results: All three patients had complete relief of their pain following epidural neurolysis. Patient 1 and 2 died peacefully 9 and 11 days following the procedure. Patient 3 was discharged home and died 2 months later. We believe without this intervention all three patients would have continued to have severe uncontrolled pain until death.

Conclusions: Phenol is a neurolytic agent with local anaesthetic properties. We believe that in a carefully selected patient group it can be used to alleviate suffering at the end of life.

Background: Pain is a common symptom in cancer patients and can be controlled with medical management in 95% of cases. We examine the use of epidural phenol neurolysis where adequate analgesia cannot be achieved with systemic or epidural opioids and adjuvants. Methods: We describe a series of three patients with extensive metastatic disease close to the end of life. They all had severe pain despite systemic opioids and adjuvants. The first two patients had failure of epidural opioid/bupivicaine/adjuvant mixture. The third patient had complex nursing needs due to the presence of 2 indwelling epidural infusions in addition to paraplegia. Epidural neurolysis was performed using phenol. Results: All three patients had complete relief of their pain following epidural neurolysis. Patient 1 and 2 died peacefully 9 and 11 days following the procedure. Patient 3 was discharged home and died 2 months later. We believe without this intervention all three patients would have continued to have severe uncontrolled pain until death.

Conclusions: Phenol is a neurolytic agent with local anaesthetic properties. We believe that in a carefully selected patient group it can be used to alleviate suffering at the end of life.
142 Oral Presentation
Assessment and measurement of quality of life and other symptoms
Developing a Measure of Quality of Death and Dying (QODD) in the Pediatric Intensive Care Unit (PICU)
Authors: Mildred Solomon Center for Applied Ethics Education Development Center U. STATES
Adena Cohen-Beauk Education Development Center Newton U. STATES
Deborah Sellers Education Development Center Newton U. STATES
Sarah McGraw New England Research Institutes Watertown U. STATES
Robert Truog Education Development Center Newton U. STATES

Background: End-of-life care in the PICU poses challenges distinct from those for adults. Relatively little information is available about the quality of dying and death in the PICU. We present the results from a qualitative study to develop a measure of QODD in the PICU. Our aims are to describe constructs and indicators through: 1) a systematic literature review and 2) focus groups with PICU providers. These findings, combined with interviews with bereaved family members, will inform the development of a PICU QODD instrument. Methods: A Medline search identified 99 relevant articles. A moderator conducted six focus groups about death and dying in the PICU with 65 PICU providers (physicians, nurses and psychologists) from two teaching hospitals. The study team abstracted themes and specific indicators on decision-making, family and clinician concerns, and quality of care from the 99 articles. Using both inductive and deductive approaches, three coders first read the transcripts and coded for the domains identified in the literature and new domains emerging from the transcripts. Second, they identified sub-themes and topics within each domain. Results: Eight core domains with indicators were identified: 1) Decisions; 2) Conflict; 3) Communication; 4) Continuity of care; 5) Emotional and psychosocial needs of the family; 6) Pain and other symptoms; 7) Choices around the circumstances of death and; 8) Bereavement. A meta-theme, underlying all of the focus group findings, was the notion of the uniqueness of each child, family, and the circumstances of death. Conclusions: Some domains and indicators are unique to the PICU; unlike for adults, autonomy is not a core domain. Accurate and deep understanding of the uniqueness of each circumstance presents methodological challenges for the development of a tool. Measures should address the subjective assessment of satisfaction with care and alignment with hopes and priorities.

143 Oral Presentation
Assessment and measurement of quality of life and other symptoms
Evaluation of the Palliative Prognostic Score (PaP) and routinely collected clinical data in prognostication of survival for patients referred to a palliative care consultation service in an acute care hospital
Authors: Yoko Tarumi Oncology/Palliative Care Medicine University of Alberta CANADA
Francis Lau University of Victoria, Health Information Science Victoria CANADA
Lorelei Savochuk Royal Alexandra Hospital, Palliative Care Program Edmonton CANADA
Hue Quan Capital Health Regional Palliative Care Program Edmonton CANADA
Sharon Watanabe University of Alberta, Oncology/Palliative Care Medicine Edmonton CANADA

Background: The PaP is a validated tool for survival prognostication in palliative care patients. The purpose of this study is to further validate the PaP and examine the additional prognostic utility of routinely collected clinical data. Methods: Cancer and non-cancer patients referred to a palliative care consultation service at an acute care hospital were included. This was a prospective cohort study on survival prediction based on PaP and other routinely collected clinical data: Palliative Performance (PPS), Folstein Mini Mental State Examination Score (MMSE), Edmonton Symptom Assessment Scale. Data were collected at initial consultation, and again at the time of final decision making for discharge planning. Other predictor variables were obtained via routinely collected administrative data including age group, gender, primary diagnosis, problems at referral, location and date of discharge, and location and date of death. Statistical Analysis: 1) Kaplan-Meier (KM) survival analysis for above listed variables; 2) Hazard ratios for death with above variables; 3) Calculation of PaP using both PPS and KPS; 4) Survival rate (%) by above variables. Results: A total 312 cases have been included in the preliminary data analysis. 95 cases have been censored due to unavailability of date of death (expected to be ready by the end of 2007). KM analysis for PaP showed 30 day survival rates that are consistent with previous studies in each risk category: A (>70%), B (30–70%), and C (<30%). KM analysis also showed shorter survival in patients with lower PPS and abnormal MMSE. KPS-PPS switch did not lead to significant difference in PaP. Further results will be presented on other variables and data collected at the second time point. Conclusions: PaP, PPS and MMSE were predictive of survival in cancer and non-cancer patients referred for palliative care consultation in an acute care hospital. Implications for clinical decision making, discharge planning and communication of goals of care will be discussed.

144 Oral Presentation
Assessment and measurement of quality of life and other symptoms
What is the best word to monitor fatigue, using a simple question in spanish?
Authors: Maite San Miguel Palliative Care Clínica Universitaria de Navarra SPAIN
Puerta Raquel Clínica Universitaria Pamplona SPAIN
Velasco Inmaculada Clínica Universitaria Pamplona SPAIN
Ramos Luis Clínica Universitaria Pamplona SPAIN
Rubio Elena Clínica Universitaria Pamplona SPAIN
Carlos Centeno Clínica Universitaria Pamplona SPAIN

Background: Visual Analogue Scales (VAS) have been considered as useful for screening asthenia in cancer patients. Symptom assessment tools include asthenia VAS among their items but they employ different words and terms. The concept of asthenia is multidimensional and abstract. The terms used in its examination may have different meanings in different languages and might not be fully understood by patients. Research has not been undertaken into what might be the most valid, reliable term to define asthenia in different languages. The lack of appropriate psychometric studies may compromise the results of symptomatic evaluation. Objective: To determine the most appropriate term, within our cultural and linguistic setting, for the examination of asthenia in cancer patients by means of simple questioning using VAS. Method: By means of a qualitative study (method of consensus by experts) with Oncology and Palliative Care professionals, several appropriate terms to examine asthenia were determined. In a second study, cancer hospital inpatients completed a FACT (Functional Assessment of Cancer Therapy) questionnaire and the FACT-F (Fatigue) subscale and three VAS of asthenia, using different selected terms. The patients’ preferences were also investigated. Results: Ten professionals chose the terms “weakness” (debilidad), “tierez” (cansancio) and “exhaustion” (agotamiento) as the most appropriate terms. A sample of 55 patients completed the questionnaire. Of them, 54% were diagnosed with fatigue with FACT-F (cut-off point of 34/44, Van Belle, 2005). A 55% (30) of patients also preferred the term “tierez” as the evaluation. Spearman’s correlation index of 0.83 (p<0.0001) was found for “weakness”. With the words “tierez” and “exhaustion”, correlations of 0.7 and 0.73 were found respectively (p<0.0001). With a cut-off point of 4/10 in the “weakness” VAS the best sensitivity and specificity were found (93% and 76%). Conclusion: The term “weakness” may be more appropriate than others for screening asthenia using a single question in cancer patients. A cut-off point of 4/10 could be appropriate for diagnosis of fatigue.
145 Oral Presentation
Assessment and measurement of quality of life and other symptoms
Quality of life in palliative care patients: a multi-centre, prospective, cross-sectional, comparative study of its estimation by patients, nurses and physicians
Authors: Katharina Kierner Dept. of Internal Medicine I Palliative Care Unit AUSTRIA
Herbert Watzke Palliative Care Unit, Department of Internal Medicine I, Medical University of Vienna Vienna AUSTRIA
Birgit Hladisch-Kermer Palliative Care Unit, Department of Internal Medicine I, Medical University of Vienna Vienna AUSTRIA
Discrepancies exist in estimation of quality of life (QL) by patients and caregivers. Methods: We performed a prospective, multi-centre, cross-sectional study in which QL of 153 patients in 20 palliative care units in Austria was estimated by patients themselves, by 70 nurses and by 53 physicians using the EORTC QLQ-C15-PAL questionnaire. In addition, we evaluated a panel of 38 variables which could influence the accuracy of estimation of QL. Results: Overall QL of patients was underestimated by nurses and physicians: concordance between patients and nurses was moderate (r =.292) but was poor between patients and physicians (r =.154). Both groups had substantial concordance regarding patient’s physical functioning (r >.600). They overrated patients in their social functioning but underrated patients in their emotional functioning. In general, physicians produced a more consistent rating with their patients than nurses on overall symptom scales (anxiety, depression, social assistance, emotional functioning). Both groups felt quite confident in their ratings. A lower Karnofsky Index was significantly associated with low accordance concerning physical functioning, fatigue, pain and overall QL. In nurses, factors such as professional experience, specific training or regular supervision did not influence quality of ratings. Estimation of fatigue was significantly better (p = .033), when nurses knew patients less than 4 days. In physicians, not the professional experiences but the number of days they knew their patients significantly (p = 0.004) improved accordance rates regarding “dyspnoea”. Estimation of anxiety was significantly more accurate in females while estimation of “dyspnoea” improved accordance rates regarding the PF-scale (r =.53). Conclusions: Our study revealed that estimation of overall QL of patients is difficult but fair estimation of their specific QL related problems is possible. Factors which influence this estimation have been identified.

146 Oral Presentation
Assessment and measurement of quality of life and other symptoms
Self-report of physical function – how does it relate to performance and clinician rated performance status in palliative cancer patients?
Authors: Line Merethe Oldervoll Institute for cancer research and molecular medicine NTNU NORWAY
Stein Kaasa Department of Cancer Research and Molecular Medicine/Palliative Medicine Unit Trondheim NORWAY
Loge Jon Håvard Department of Cancer Research and Molecular Medicine/Department of Clinical Cancer Research, Rikshos Trondheim/Oslo NORWAY
May Britt Asp Physiotherapy Department, St Olavs Hospital Trondheim NORWAY
Background: Decline in physical function is inevitable among cancer patients in the palliative setting. Most research on physical functioning has been conducted by use of self-reported measures. How these relate to objective assessments of functioning is poorly documented. The aim was to investigate the association between a commonly used self-reported measure of physical function and 1) objective performance tests and 2) clinician rated performance status. Methods: Patients with incurable cancer with Karnofsky status (KS) between 50 and 100 and ability to walk were recruited from three palliative out-patient units in Norway. The patients completed the physical functioning scale (PF-scale) in the cancer specific quality of life instrument EORTC-QLQ-C30. Performance was tested by the Shuttle walk test (walking capability), the “sit to stand” test (strength in the lower limb), the handgrip test (isometric strength) and “step-forward test” (balance). Clinicians used the KS to rate the patients’ performance status. Results: 83 patients (35 men/48 women) completed the study. The mean age and KS was respectively 64 years (range 35–86) and 78 (50–100). Spearman correlation-coefficient (i.e. convergent validity) between the PF-scale and the Shuttle walk test was high (r = .70, p < 0.001). The correlation-coefficient between the PF-scale and the sit to stand, the hand grip test and the step forward was moderate (r values: 0.47, 0.48 and 0.48). Finally, there was a moderate correlation between the KS and the PF-scale (r = .53). Conclusions: For research purpose, the assessment tools should be used complementary to each other to better assess the functional status. The moderate correlations between the performance tests and PF-scale can partly be explained by the content of the PF-scale which does not cover the specific functions assessed by the performance tests except for walking. The study was supported by grants from the Norwegian Foundation for Health and Rehabilitation and the Norwegian Cancer Society.

147 Invited Lecture
Plenary Session 3
Global warming in the palliative care research environment – adapting to change
Authors: Robin Fainsinger Division of Palliative Care Medicine University of Alberta, Edmonton, Canada CANADA
Advocates of palliative care research have often described the cold and difficult environment that has constrained the development of research internationally. The development of palliative care research has been slow over the last few decades and has met with resistance and sometimes hostility to the idea of conducting research in “vulnerable populations”. The seeds of advocacy for research can be found in palliative care literature from the 1980s and early 1990s. Although we have much to do, we need to recognize that palliative care research development has come a long way. Of particular note is the development of well funded collaboratives that now exist in Europe, Canada, Australia, and the USA. The European Association of Palliative Care and the International Association for Palliative Care has recognized the need to develop and promote global research initiatives, with a special focus on developing countries. Time is needed to develop good research evidence, and in a more complex health care environment takes increasingly more resources to be productive. The increased support (global warming) evident in the increased funding opportunities available to palliative care researchers in a number of countries brings both benefits and challenges. There is evidence that the advocacy of individuals such as Kathleen Foley, Neil MacDonald, Balfour Mount, Vittorio Ventafridda, Robert Twycross and Geoff Hanks is now providing fertile ground and a much friendlier environment for a new generation of interdisciplinary palliative care research. We have achieved many of the goals necessary to avoid failure of the “palliative care experiment”, and need to accept the challenge of our present climate and adapt and take advantage of the change.
Background: There is a plethora of chronic pain assessment methods and scales that are used across a wide range of care settings. Specialist pain scoring systems are used, for example, in cancer service, pain clinics, arthritis care and nursing homes. There are also different tools for children and older people, including those with dementia. Each service uses different measures which can reduce effective communication. There should be some standardisation so that the best evidence-based measures are used consistently across services. Aims: To describe the best practice in the assessment of chronic pain in adults and older children and to make recommendations for a standardised approach for use in the UK National Health Service. The project was part of an NHS programme to engage and enable clinicians, healthcare providers and patients to share their knowledge, skills, and experiences. Methods: Two national stakeholder events have taken place. The project has sought opinions from a wide range of experts, patient representatives and professional bodies. A systematic extensive search of the literature was performed. All key documents and feedback from the events have been posted on the National Library for Palliative and Supportive Care website. An email discussion page was set up to facilitate discussion around this topic. Results: The literature review has identified over 150 pain assessment instruments. We have categorised these according to age group; cognitive functioning; body systems; disease types. Recommendations for standardised use in different settings are being disseminated for consultation. Conclusions: The assessment of chronic pain is complex and clearly requires a wide range of measures. The project has for the first time produced a comprehensive classification and sets of logical recommendations for clinicians and researchers. These now need to be widely consulted and incorporated into clinical data management systems.

Poster N°: 149

Type of presentation: Poster
Poster session: First Group 29 May Thursday, 10.30 to 30 May Friday 13.00
Category: Assessment & measurement tools
Title: Mini-Suffering State Examination scale: possible key criterion for 6 months survival and mortality of critically ill dementia patients
Authors: Bechor Zvi Aminoff Geriatric Division Sheba Medical Center, Tel-Hashomer ISRAEL

Background: Six months of survival as a key criterion is extremely important for decision-making for enrolling critically ill patients to palliative settings. Prospective cohort study with 6 months of follow-up during a 24-month period performed in Division of Geriatric Medicine in a tertiary general hospital. Methods: One-hundred and three consecutively admitted bedridden patients with end-stage dementia were evaluated. Patients were evaluated weekly by the Mini Suffering State Examination scale (MSSE) which developed by us and presented in world and regional congresses in Berlin (1999), Jerusalem (2000), Vancouver (2001), Stockholm (2002), Tokyo (2003), Las-Vegas (2004), Rio-de-Janeiro (2005), Madrid (2006), Saint-Petersburg (2007), the Committee for Labor, Social Services and Health of the Israeli Knesset (2005) and published in Journal Archives of Gerontology and Geriatrics (2004, 38, 2, 123–130) and Age and Ageing (2006, 35, 6, 597–601) and our book – Measurement of Suffering in end-stage Alzheimer’s Disease, Dyonon, Tel-Aviv, 2007. Interrelations between Mini-Suffering State Examination score at admission and six month’s survival and mortality were evaluated. Results: A significant difference was proved among survival curves of subgroups of patients according to the mini scores (0–3, 4–6, 7–10). Survival was shorter and mortality higher in patients with a high Mini-Suffering State Examination score, as shown by the Kaplan-Meier method using the Log Rank (p=0.001) and Breslow tests (p=0.001). Conclusions: The Mini-Suffering State Examination scale is useful for predicting the last 6 months of survival and mortality of end-stage dementia patients.

Poster N°: 150

Type of presentation: Poster
Poster session: First Group 29 May Thursday, 10.30 to 30 May Friday 13.00
Category: Assessment & measurement tools
Title: Caregiver’s perspective of quality: development of a satisfaction tool
Presenting author: Annette Welshman
Authors: Francesca Bordin Palliative Care Unit Fondazione Sue Ryder Onlus ITALY Francesca Trasatti Fondazione Sue Ryder Onlus Roma ITALY Annette Welshman Fondazione Sue Ryder Onlus Roma ITALY

Background: Carer satisfaction is a crucial outcome measure in Palliative Care. Satisfaction measurement tools in end of life care are few; a literature review identified 20 potential instruments for consideration in a PC setting. A 12 month pilot study in a palliative care population aimed at evaluating a new comprehensive tool was developed on the basis of a previously reported experience, in terms of usefulness and audit aims. Methods: An anonymous self-administered questionnaire was sent to the carer/family approximately 30 days following pt’s death. 20 items where chosen based on the model of FAMCARE, modified on-going in focus groups, tailored for the dying population and adapted to a home-hospice care setting: 17 are 5-point scales, and 3 Yes/No/Don’t know response options. Distinct areas of care were tested: Organisational: (accessibility/admission procedures/staff-care coordination); Technical: (competency/physical-psychological symptoms control/place of death); Relational: (respect/communication/support-family involvement in decision making); Overall satisfaction/response to expectation.; The opportunity to write feelings/advice was encouraged. Results: Response rate was 58%, lower than the previous instrument used (61%), maybe due to a greater time requirement and emotional implication in filling in the form. Overall care satisfaction discriminated well between excellent 74.7%, and satisfactory 21.6%; place of death was respondent to pt/carer choice in >90%, and 96.4% reported care as fully respondent to their expectation. Separate subscale analysis revealed more satisfaction for relational than for organisational/technical aspects, showing some difficulties in “excellent” symptom control. Among relational issues, respect /attention were more satisfactory than information/communication, and the need for more specialist psychological support was underlined. Conclusion: The tool is a simple and useful audit tool; subscales evaluation and sources of “dissatisfaction” assists in planning and implementing change.

Poster N°: 151

Type of presentation: Poster
Poster session: First Group 29 May Thursday, 10.30 to 30 May Friday 13.00
Category: Assessment & measurement tools
Title: Validity of an average 8-hour pain intensity assessment in cancer patients
Presenting author: Cinzia Brunelli
Authors: Augusto Caraceni National Cancer Institute Rehabilitation and Palliative Care Unit ITALY Ernesto Zecca National Cancer Institute Milan ITALY Cinzia Brunelli National Cancer Institute Milan ITALY Cinzia Martini National Cancer Institute Milan ITALY Giovanna Gorni National Cancer Institute Milan ITALY
**Background:** Frequency and timing of pain measurement in cancer patients is a significant decision in pain management but standardized approaches are still debatable. Aim of the present study is to compare the agreement of two different schedules for pain evaluation over a period of 8 hours in cancer patients. **Methods:** A sample of consecutive cancer inpatients were asked to score on 0–10 numerical scale the intensity of their pain at hourly intervals, then, at the 8th hour, they were asked to rate their average pain intensity over the last 8 hours (H8). Agreement between the average of the of the 8 hourly measures (H1) and the single one (H8), was examined by the intraclass correlation coefficient (ICC) and the absolute difference (AD) between the two measurement. Association levels between AD and sex, age, somatic pain , visceral pain, neuropathic pain, breakthrough pain, pain on movement were also examined. **Results:** 95 patients were enrolled in the study and 94 of them completed both pain evaluations. Average pain levels were very similar with the two measurement schedules: 3.4 for H1 and 3.8 for H8, with a median AD of 0.5 points. Only 10% of the patients showed ADs higher than 2 points and also the ICC of 0.70 shows a substantial agreement between the two schedules. Among the variables examined only sex showed a significant association with the agreement level with a mean AD of 0.63 in men versus 1.31 in women (p<0.005). **Conclusions:** Our results support the validity of a subjective average pain measurement over 8 hour– period in cancer patients.

**Poster N°: 152**

**Type of presentation:** Poster  
**Poster session:** First Group 29 May Thursday, 10.30 to 30 May Friday 13.00  
**Category:** Assessment & measurement tools  
**Title:** The Italian version of the Palliative Care Outcome Scale (POS)  
**Authors:** Massimo Costantini Regional Palliative Care Network National Cancer Institute ITALY

**Aims:** to validate the Italian version of the POS in a palliative care setting. POS was translated into Italian following EORTC guidelines. To increase the ability of the instrument to assess the spiritual domain, item 8 “Have you felt good about yourself as a person?” was substituted with a new item “Are you at peace?” (Steinhauser K, 2006). **Methods:** Consecutive cancer patients admitted to Palliative Care Teams aged 18 years or more were registered for the study. Patients were considered eligible if, within 24 hours from admission, they filled in the baseline POS (T0). At T0, POS was administered with the EORTC QLQ-C15-PAL and the FACIT-Sp12. After 5–9 days (T1), POS was re-administered to the patients and the staff. Test/re-test reliability was evaluated after 24–48 hours from T1 for stable patients in hospice (T2). After the patient’s death, POS was filled in by the staff (T3). **Results:** 232 patients were registered from 16 teams (8 hospices and 8 domiciliary teams). At T0, 115 patients (49.6%) filled in the POS. The FACIT-Sp12 scale was correlated (Spearman coeff=0.46) with the new item 8. Internal consistency was acceptable for patients (alpha=0.73) and staff (alpha=0.66) version. Agreement between patients and staff was moderate for most items (median weighted kappa=0.24; range 0.16–0.52), and discrete for the POS overall score (ICC=0.56). Test-retest reliability was discrete for patients (median weighted kappa=0.44; range –0.01–0.54) and staff (median weighted kappa=0.44; range –0.07–0.73) version. A significant improvement in the first week (T1–T0) was observed for the POS overall score (+2.9; 95%CI=1.7–4.1). Major improvements were observed for other symptoms (+0.51), family anxiety (+0.44), pain (+0.41), information (+0.32), and spirituality (+0.32). **Conclusions:** The Italian version of the POS seems a valid instrument for palliative patients, although some items should be probably refined to better capture staff and patients point of views. This work was supported by a grant of the Centro Universitario di Ricerca “Cure palliative in pazienti inaguaribili e terminali” (Progetti di ricerca 2005).

**Poster N°: 153**

**Type of presentation:** Poster  
**Poster session:** First Group 29 May Thursday, 10.30 to 30 May Friday 13.00  
**Category:** Assessment & measurement tools  
**Title:** The complexity and the difficulties in palliative care in a Home Hospitalization Unit (HHU)  
**Authors:** Antonio Duque Granado Internal Medicine (Home Hospitalization Unit) Hospital Viergen Del Rocio SPAIN  
Jaime Boceta Osuna Chairman Of The Palliative Care Society Of Andalusia Sevilla/Sevilla SPAIN  
Luis Mendizabal Rosale Hospital Viergen Del Rocio Sevilla/Sevilla SPAIN  
Auxiliadora Fernandez Lopez hospital Viron Del Rocio Sevilla/Sevilla SPAIN  
Rafael Cia Ramos Hospital Viergen Del Rocio Sevilla?Sevilla SPAIN  
Carmen Aguilea Hospital Viron Del Rocio Sevilla/Sevilla SPAIN  
José Expósito Hernández Director Of The Integral Oncology Plan Of Andalusia Sevilla/Sevilla/SPAIN

**Background:** Palliative care is considered to be a right of every citizen, whether in a primary care or a specialised unit. Complexity in terminally ill patients is a concept with a multifactor character which depends on a group of self-related elements. Despite studies carried out to this respect at present no valid method has been described to assess the complexity of terminally ill patients in palliative care. Though the responsibility for home terminal patient care falls on primary care physician teams the difficulty and complexity that this care brings about makes advisable the help of a support team in home palliative care programmes. **Methods:** Prospective survey on patients in our unit from January 2005 to April 2006. Evaluate the degree of complexity in terminally ill patients by a palliative care support team located in a HHU. Establish a classification of terminally ill patients of differing levels of complexity. Which may help to orientate the level of intervention of each healthcare resource. **Results:** 456 patients have been controlled in our Unit. 52.4% men, 47.6% women; in range of 19–90 years old with an average age of 69. 60.4% of them with Karnofsky Index of 40–50%. Death rate at home has risen to 42.8%. Patients are classified in groups of increasing complexity from the lowest level N1 to the greatest level (N3). A fourth level (N4) of complexity in the last days of the life. Taking into account the number of patients in each level, life quality, visits done, and activities carried out by our Unit. Statistical Analysis: Student’s t-test, Chi-square test, means±SD. ANOVA with correction T3 of Dunnett for multiple comparisons. **Conclusions:** We believe that an assessment classification as well as patient classification in different levels or stages are needed. Complexity measures and number of visits and their complexity have to be taken into account. This would make easier to locate patients according to their complexity in teams with the greatest facilities, both human and equipment.

**Poster N°: 154 withdrawn**

**Poster N°: 155**

**Type of presentation:** Poster  
**Poster session:** First Group 29 May Thursday, 10.30 to 30 May Friday 13.00  
**Category:** Assessment Measurement Tools  
**Title:** Self-reported pain severity: numerical rating scales versus verbal rating scales  
**Authors:** Peter Fayers University of Aberdeen Medical School Department of Public Health UNITED KINGDOM  
Marianne Hjermstad Ulleval University Hospital Oslo NORWAY  
Jon Håvards Loge Rikshospitalet University Hospital Oslo NORWAY  
Stein Kaasa St. Olavs Hospital, Dept. Of Palliative Medicine Trondheim NORWAY  
representing the EPCRC
**Background:** For decades there has been debate about the best way to ask patients to rate pain severity. A range of methods has been advocated, including numerical rating scales from 0 “no pain” to 10 “worst possible pain” (NRS-11), verbal rating scales with between 4 (VRS-4) to 7 (VRS-7) response options labelled with verbal descriptors, and visual analogue scales (VAS). There is extensive literature in the social sciences about rating scales, mainly dating from the 1950s to the late 1980s, as well as a number of publications about pain assessment. Two themes emerge. Firstly, determination of the optimal number of response options when using NRS or VRS scales. Secondly, comparison of VAS scales against NRS. The exact number of response options used in a scale is important. One or two extra options may increase reliability and better reflect the patient-to-patient variability. But, lengthier scales may increase the time to complete questionnaires, and place greater cognitive demands on frail patients.

Aim: To review literature on rating scales, supplemented by empirical analyses of a 14/30 (47%) vs. 5/30 (17%) in EH patient group, p=0.0125.

Poster N°: 156

**Type of presentation:** Poster

**Poster session:** First Group 29 May Thursday, 10.30 to 30 May Friday 13.00

**Category:** Assessment & measurement tools

**Title:** Outcomes in Patients Who Had Undergone Internal Hemipelvectomy (IH) versus External Hemipelvectomy (EH)

**Authors:**
- Ying Guo Palliative Care and Rehabilitation Medicine M. D. Anderson Cancer Center Houston U. STATES
- Karen Zhang M. D. Anderson Cancer Center Houston U. STATES
- Be-Lian Pei M. D. Anderson Cancer Center Houston U. STATES
- Jeanine Hanohano M. D. Anderson Cancer Center Houston U. STATES
- Christina Cote M. D. Anderson Cancer Center Houston U. STATES
- J. Lynn Palmer M. D. Anderson Cancer Center Houston U. STATES
- Gunjan Sharma M. D. Anderson Cancer Center Houston U. STATES
- Guddi Kaur M. D. Anderson Cancer Center Houston U. STATES
- Eduardo Bruera M. D. Anderson Cancer Center Houston U. STATES

**Background:** Introduction: Hemipelvectomy is necessary in treatment of malignant pelvic tumors. This study compares the rehabilitation need and functional outcome of patients undergoing an IH versus EH. **Methods:** Charts from 30 patients who underwent IH and 30 patients who underwent EH during 1993–2005 were reviewed. Information collected include: demographic data; tumor diagnosis and treatment received; post-operative hospital length of stay (LOS); whether patient required physiatrist consult and/or acute inpatient rehabilitation stay; the length of rehabilitation stay; patients’ functional independence measure (FIM) score for gait upon discharge. We compared differences between the IH and EH groups using the Wilcoxon rank sum test, Chi-square test, and Fisher’s exact test. **Results:** The mean age (range) for IH was 47 (8–80) and 44 (12–75) for EH groups. The male gender was 22/30 (73%) for IH and 15/30 (50%) for EH groups. The preoperative chemotherapy and radiation treatment are similar between IH and EH groups (p=0.11 and 0.37) respectively. Rehabilitation consultation and acute in-patient rehabilitation stay was required for IH group 15/30 (50%) and 13/30 (43%); for EH 16/30 (53%) and 16/30 (53%) respectively (p = 0.8, and 0.44) respectively. The mean (range) hospital LOS for patients who underwent EH was significantly longer than those who underwent IH (37 vs.19, p=0.0035). The mean rehabilitation LOS was similar (20 for EH vs. 22 days for IH patients, p=0.83). At the time of discharge, significantly higher percent of IH patients were able to ambulate without another person’s assistance 14/30 (47%) vs. 5/30 (17%) in EH patient group, p=0.0125.

**Conclusions:** Internal hemipelvectomy with limb salvage seems to be advantageous over external hemipelvectomy, in both hospital LOS and short-term functional recovery.

**Poster N°: 157**

**Type of presentation:** Poster

**Poster session:** First Group 29 May Thursday, 10.30 to 30 May Friday 13.00

**Category:** Assessment & measurement tools

**Title:** Karnofsky Index and survival

**Authors:**
- Eva Gyllenhammar Lövett Närvärd AB ASIH SWEDEN
- Jan Adriasson Onkologiskt centrum Karolinska Universitetssjukhuset Solna SWEDEN
- Eva Thoren-Todoulos ASIH Lovenströmska sjukhuset SE-194 89 SWEDEN

**Background:** Previous studies have shown that Karnofsky Performance Index (KPI) < 40 is associated with shorter survival time. In a palliative home care setting it would be of great value to have easily accessible tools to assess prognosis in terms of survival. **Methods:** All patients admitted to our advanced home care team during 30 months were assessed with KPI at the first home visit. The patients hade both non-malignant and malignant diagnosis and were all in a palliative stage of their disease. KPI was noted in the electronic file of each patient and the file could not be completed without the assessment. Six senior doctors were involved. **Results:** 579 consecutive patients were included. One (1)KPI assessment was missing. 152 patients had non-malignant diseases and 426 had a disseminated cancer with rapidly progressing disease. The mean KPI at admission was 70. In the non-malignant group 13 % (20/152) died during the study period, and in the cancer group 65%. (279/426) In the non-malignant group 52 % of the patients had a KPI equal 60 or lower at admission. The corresponding figure for the cancer patients was 31 %. For the group as a whole (579 patients) no correlation was found between KPI and time of survival. In the non-malignant group there was likewise no correlation to be found. In the malignant group there was a correlation between KPI and time of survival, which is significant at the 0.01 level. **Conclusions:** Our conclusion is that KPI on its own is not a useful tool to estimate prognosis in terms of time of survival in a mixed palliative patients’ population. The non-malignant patients hade a poorer KPI score at admission but a much better survival. In a palliative cancer patient group KPI might be useful but still approximately 20 % of the patients were “long term survivors”.

**Poster N°: 158**

**Type of presentation:** Poster & poster discussion session

**Poster session:** First Group 29 May Thursday, 10.30 to 30 May Friday 13.00

**Category:** Assessment & measurement tools

**Title:** The Alberta Breakthrough Pain Assessment Tool for Research: A Validation Study

**Authors:**
- Neil Hagen Oncology Tom Baker Cancer Centre and University of Calgary CANADA
- Cheryl Nekolahichuk University of Alberta Edmonton, Alberta CANADA
- Patricia Biondo Tom Baker Cancer Centre, Alberta Cancer Board Calgary, Alberta CANADA
- Linda Carlson Alberta Cancer Board and University of Calgary, Alberta CANADA
- Carla Stiles Tom Baker Cancer Centre, Alberta Cancer Board Calgary, Alberta CANADA
- Kim Fisher Alberta Cancer Board Calgary, Alberta CANADA
- Robin Fainsinger Alberta Cancer Board and University of Alberta Edmonton, Alberta CANADA

**Background:** For decades there has been debate about the best way to ask patients to rate pain severity. A range of methods has been advocated, including numerical rating scales from 0 “no pain” to 10 “worst possible pain” (NRS-11), verbal rating scales with between 4 (VRS-4) to 7 (VRS-7) response options labelled with verbal descriptors, and visual analogue scales (VAS). There is extensive literature in the social sciences about rating scales, mainly dating from the 1950s to the late 1980s, as well as a number of publications about pain assessment. Two themes emerge. Firstly, determination of the optimal number of response options when using NRS or VRS scales. Secondly, comparison of VAS scales against NRS. The exact number of response options used in a scale is important. One or two extra options may increase reliability and better reflect the patient-to-patient variability. But, lengthier scales may increase the time to complete questionnaires, and place greater cognitive demands on frail patients.

Aim: To review literature on rating scales, supplemented by empirical analyses of a 14/30 (47%) vs. 5/30 (17%) in EH patient group, p=0.0125.
Background: Breakthrough pain is a prevalent and difficult to manage cancer pain syndrome. Further research is needed to assess novel approaches to its assessment and management. However, no validated tool currently exists to assess breakthrough pain in a standard and reliable manner. Such a tool is urgently needed to support research on novel breakthrough pain interventions.

Methods: We developed a new tool, the Alberta Breakthrough Pain Assessment Tool for Research (ABPAT-R). It is designed to capture several clinically relevant elements of breakthrough pain, including: relationship to baseline pain; location; intensity; quality; duration; frequency; predictability; and response to medication. We undertook content and construct validity testing of the tool via a Delphi process involving experts in the area of cancer pain, as well as “think aloud” study involving cancer patients.

Results: Two expert panels were formed: a national panel (within Canada; n=16) and an international panel (including experts from North America, UK, Europe, the Middle East, Australia, and New Zealand; n=22). Response rates were 56% (national panel) and 73% (international panel). The Delphi process revealed substantial consensus on the content of the tool, which increased between rounds of review. The overall level of agreement with the tool, averaged over the four evaluated aspects of all items, was 80% among national panelists and 88% among international panelists. Nine patients completed the “think aloud” study. They provided information on the feasibility of using the tool and gave specific direction for its improvement.

Conclusions: The initial validation of the Alberta Breakthrough Pain Assessment Tool for Research provides evidence that the tool is conceptually grounded and is understandable by patients and clinicians. We anticipate the tool can support programs of clinical research to evaluate novel approaches to assessing and managing breakthrough cancer pain. Funding: CIHR Grant PET69772, Alberta Cancer Board.

Table 1. Agreement between video recordings and sensor measurements.

<table>
<thead>
<tr>
<th>Activity</th>
<th>Mean diff.</th>
<th>% Abs. error</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sedentary (sec)</td>
<td>54.6±10.8</td>
<td>10.9</td>
</tr>
<tr>
<td>Upright (sec)</td>
<td>54.8±10.6</td>
<td>10.9</td>
</tr>
</tbody>
</table>

Instructed activity Observation Sensor Mean diff. % Abs. error %

Conclusion: The sensor system can be used to accurately distinguish between time in sedentary versus upright activities and can thus be a valid measure of palliative cancer patients’ activity level in the clinic and at home. More robust algorithms are needed to accurately count steps in frail populations.

Poster N°: 159

Type of presentation: Poster
Poster session: First Group 29 May Thursday, 10.30 to 30 May Friday 13.00
Category: Assessment & measurement tools
Title: Measurement of daily life activities in palliative patients. –An EPCRC validation study of two different body worn sensor systems
Authors:
Jorunn L. Helbostad Dept of Neuroscience Norwegian University of Science and Technology NORWAY
Aurelius Omlin Oncology & Palliative Care, Cantonal Hospital St. Gallen SWITZERLAND
Stein Kaasa Dept. of Cancer Research and Molecular Medicine, NTNU Trondheim NORWAY
Lucas Radbruck Dept. of Palliative Medicine, RWTH Aachen University Trondheim NORWAY
Peter Trotenberg Dept. of Palliative Medicine, RWTH Aachen University Aachen GERMANY
Guro Stene Dept. of Cancer Research and Molecular Medicine, NTNU Trondheim NORWAY
Line Oldervoll Dept. of Cancer Research and Molecular Medicine, NTNU Trondheim NORWAY
David Blum Oncology & Palliative Care, Cantonal Hospital St.Gallen SWITZERLAND
Florian Strasser Oncology & Palliative Care, Cantonal Hospital St. Gallen SWITZERLAND
representing the EPCRC

Background: Daily activities can be measured by body worn sensors (BWS). Such methods are so far validated in persons with none or small functional limitations. This European Palliative Care Research Collaborative (EPCRC) study aims to test the accuracy of a BWS system in recognising sedentary versus upright activities and step count during walking in palliative cancer patients.Methods: A BWS (ActivPAL®) attached to the patient’s thigh was used to measure sedentary (lying/sitting) versus upright (standing/walking) activities and step count in 17 patients; 11 women (64.9 ±15.8 yrs) and 7 men (61.7 ±7.4 yrs). Mean Karnofsky Performance Status was 63.5 (40 – 100). One patient used crutches and one support from another person during walking. Predefined activities including transfers in bed/chair and 6m slow, preferred and fast walking were performed. Sensor registrations were compared with 2D video camera recordings. Absolute % of agreement was calculated using the Bland Altman method and absolute % error as ((sensor – observation)/observation) x 100.

Results: There was high agreement between video observations and sensor registrations for time in sedentary versus upright activity (table 1). Slow speed was 0.46±0.14 m/s, preferred 0.62±0.23 m/s and fast speed 0.81±0.25 m/s. Steps were underreported by the sensor independent of walking speed.

Poster N°: 160

Type of presentation: Poster
Poster session: First Group 29 May Thursday, 10.30 to 30 May Friday 13.00
Category: Assessment & measurement tools
Title: An updated literature review on the content of pain assessment tools in palliative care (PC)
Authors:
Marianne Jensen Hjermstad Department of Oncology Ullevål University Hospital NORWAY
Augusto Caraceni National Cancer Institute of Milan Milan ITALY
Dagny Faksvåg Høgskolen Regional Centre of Excellence for Palliative Care, Western Norway, Haukeland University Hospital Bergen NORWAY
Stein Kaasa Department of Cancer Research and Molecular Medicine, Faculty of Medicine, Norwegian University of STondheim NORWAY representing the EPCRC

Background: The European Palliative Care Research Collaborative, the EPCRC (http://www.epcrc.org/) aims to develop an international computerised tool for pain assessment and classification. Objective To update our literature review (1985–2003) on self-report pain assessment tools in palliative care (PC) and their content. Methods: Medline/Ovid databases were searched by the MeSH terms: “pain assessment” OR “pain measurement” AND “palliative care” OR “palliative medicine”. Limitations: dates: 2003 through August 2007, journal article/review, English language, humans, adults, cancer. Results: 196 publications were examined, 180 did not meet the inclusion criteria. 18 tools were found in 16 reports (13 clinical studies, 1 review, 2 qualitative studies: spiritual pain/pain experience), 7 were from North-America, 6 from Europe and 3 from Asia. Six tools were developed before 2003. Sample size ranged from 46–363, completion rates from 50–100%. All tools were developed for paper/pencil format. 18 were multidimensional covering 11 pain dimensions with 1–10 items for each dimension. The 5 most important dimensions defined by an expert panel in our previous study (intensity, interference, relief/exacerbation, temporal pattern, location) were most often assessed. Pain intensity was assessed in 15 studies, primarily by different NRS/VAS scales. Timeframes ranged
from “at present” to “last week”. Six tools (MCPAC, Pain-O-Meter, CPPS, MAT-PC, Amsterdam Pain Management Index, Brief Pain Diary) consisted of NRS and/or VAS scales for index calculations representing new approaches to pain management/assessment/relief/care. Huge variation was found in the validation of the tools. **Conclusions:** This review identified a variety of approaches to pain assessment in PC, consistent with the previous review. Instead of developing new tools, there is a need for a consensus-based approach to pain assessment in palliative cancer patients, identified as an EPCRC task.

**Poster N°: 161**

**Type of presentation:** Poster  
**Poster session:** First Group 29 May Thursday, 10.30 to 30 May Friday 13.00  
**Category:** Assessment & measurement tools  
**Title:** Validity and Cross Cultural Adaptation of the Thai Version of the Edmonton symptom Assessment Scale (ESAS)  
**Authors:**  
Durin Jaturapattorn, Medicine, University of Toronto Temmy Latner Centre for Palliative Care CANADA

**Background:** The Edmonton Symptom Assessment Scale (ESAS) is a well-known instrument in palliative care, created by the Edmonton group in 1991. The questionnaire consists of nine numerical visual scales for nine physical and psychological symptoms as follows: pain, fatigue, nausea, depression, anxiety, drowsiness, appetite, well-being and shortness of breath. **Methods:** Cross-sectional study: the original ESAS was translated into Thai with permission from the Edmonton group. The translation process followed the guidelines for cross-cultural adaptation of self-report measures, including forward translation, synthesis of the translation, back translation, cross-cultural adaptation and pre-testing. The pilot study was done by distributing the questionnaire to a sample of 20 people before revision of the questionnaire. **Results:** The translation process was carried out over a period of three months, from June to August 2007. In pilot study, the average time to complete questionnaire is five minutes. Fifteen people (75%) commented that the numerical scale of 1–10 is too broad to identify the feeling, therefore, the description of each number should be provided. For cultural aspects, it was noticed to clarify and change the word ‘well being’ because there is no such a word in Thai. In addition, further questions included ‘fear’, ‘suffering’ and ‘knowledge of the disease’ were suggested to add on. **Conclusions:** After translation and cross-cultural adaptation, the Thai version of the ESAS questionnaire is available as a patient-administered instrument to evaluate symptoms for palliative care patients in Thailand.

**Poster N°: 162**

**Type of presentation:** Poster  
**Poster session:** First Group 29 May Thursday, 10.30 to 30 May Friday 13.00  
**Category:** Assessment & measurement tools  
**Title:** Using cognitive interviews to evaluate the validity of the three-level-of-needs-questionnaire (3LNQ)  
**Authors:**  
Anna Thit Johnson Dept. of Palliative Medicine Bispebjerg Hospital DENMARK  
Mogens Groenvold Dept. of Palliative Medicine, Bispebjerg Hospital Copenhagen DENMARK  
Morten Aa Petersen Dept. of Palliative Medicine, Bispebjerg Hospital Copenhagen DENMARK  
Lise Pedersen Dept. of Palliative Medicine, Bispebjerg Hospital Copenhagen DENMARK

**Background:** Aim: to evaluate the validity of the Three-Level-of-Needs Questionnaire (3LNQ) using a cognitive interviewing technique. The 3LNQ was developed for self-assessment of palliative needs in patients with advanced cancer. It measures 1) problem intensity, i.e. the degree to which a symptom or problem is present, 2) problem burden, i.e. the degree to which a symptom or problem is perceived as a problem, and 3) felt need (i.e. the degree to which the patient expresses a need for help or treatment. **Methods:** seventy-four patients with advanced cancer filled out the questionnaire and participated in an open-ended interview. The patients’ responses to the questionnaire were compared against the researchers’ responses based on the interviews. Items showing substantial agreement (kappa>0.61) were accepted without further analysis. For items falling below this cut-point reasons for disagreements were analyzed qualitatively. **Results:** all items on problem intensity, 58% of items on problem burden and 17% of items on felt need showed substantial agreement. Analysis of the qualitative data concerning the remaining items showed that most of the disagreements were produced by the method i.e., they did not indicate validity problems. However, some comments indicated potential validity problems that will be presented. **Conclusions:** all items in the 3LNQ were accepted as being valid although some items must be interpreted with caution. The study presents valuable insight into the patient’s perception of problem intensity, problem burden and felt need. Acknowledgements: The study was supported by the Danish Cancer Society (PP01006 and PP05033), and the Ministry of Health’s Grant for Development and Analysis (2003–2001–39).

**Poster N°: 163**

**Type of presentation:** Poster  
**Poster session:** First Group 29 May Thursday, 10.30 to 30 May Friday 13.00  
**Category:** Assessment & measurement tools  
**Title:** Screening and prevalence study of holistic supportive and palliative care needs in cancer patients at all stages  
**Presenting author:** Bill Noble  
**Authors:**  
Georgia Keenleyside Academic Unit of Supportive Care University of Sheffield UNITED KINGDOM  
Stephen Walters University of Sheffield Sheffield UNITED KINGDOM  
Jason Boland Sheffield Teaching Hospitals NHS Foundation Trust Sheffield UNITED KINGDOM  
Bill Noble University of Sheffield Sheffield UNITED KINGDOM  
Elaine Rogers Academic Unit Supportive Care, University of Sheffield Sheffield UNITED KINGDOM  
Sam H Ahmedzai Academic Unit Supportive Care, University of Sheffield Sheffield UNITED KINGDOM

**Background:** Palliative and supportive care services are trying to reach more cancer patients in need of specialist care, but one of the barriers is that their clinicians are ill-equipped to assess their needs. We have rigorously developed a screening tool which determines holistic needs in a standardized way. The questionnaire, SPARC-45, is self-completed by the patient. **Aims:** 1) To quantify the point prevalence and impact of pain and fatigue in cancer patients at all stages of their journey from around diagnosis to after treatment and end of life care. 2) To validate SPARC-45 against EORTC QLQ-C30, Brief Pain Inventory, Leeds Assessment of Neuropathic Symptoms and Signs, Multidimensional Fatigue Inventory. The study quantifies the relationship of symptoms and distress to current medication, anti-cancer treatment and to functioning and overall quality of life. **Methods:** A survey was conducted in all the wards of the hospitals in the city and the two specialist palliative care in-patient units; and in selected out-patient clinics and day wards and centres. Cancer patients over 18 years were invited to participate after informed consent. In-patients were given questionnaires and interviews. Out-patients and daycare patients received posted questionnaires. All patients completed SPARC and EORTC QLQ-C30; they only completed other tools if they scored highly on relevant symptoms. Analysis is by SPSS using descriptive and correlational statistics. **Results:** Results are currently being analysed from 326 patients. These patients represent the whole spectrum of cancer from diagnosis to end of life care. Data will be presented on the changing symptom burden and other needs as disease progresses. **Conclusions:** This is probably the first UK
population-based study of adult cancer patients, assessing holistic supportive and palliative care needs as well as functioning and quality of life, at all stages of the cancer journey. The results will lead to improved recognition of these needs and earlier intervention.

Poster N°: 164

Type of presentation: Poster
Poster session: First Group 29 May Thursday, 10.30 to 30 May Friday 13.00
Category: Assessment & measurement tools
Title: Outcome indicators in palliative care – how to assess quality and success
Authors:
Norbert Krumm Department of Palliative Medicine RWTH Aachen University GERMANY
Martina Pestinger Department of Palliative Medicine, RWTH Aachen University Aachen GERMANY
Lukas Radbruch Department of Palliative Medicine, RWTH Aachen University Aachen GERMANY
Tania Pastrana Department of Palliative Medicine, RWTH Aachen University Aachen GERMANY

Background: The call for good outcome criteria has been raised, as assessment of adequate quality of service providers is essential with increasing momentum in the development of palliative care in most European countries. However, the criteria and scales that have been suggested have failed to prove their effectiveness in the differentiation of different settings or in quality management. The aim of this study is to investigate important dimensions and indicators for assessment and evaluation of palliative care from the perspective of German experts in palliative care.

Methods: A focus group, using consensus methods, with 10 experts from different disciplines (physicians, psychologist, theologian, sociologist, social worker, and nursing) was conducted. Participants had to identify and rank important issues in assessment and evaluation in clinical practice. In addition, the essential properties of outcome indicators were discussed.

Results: An abundance of topics (16) were identified, pointing at the complexity of the issue. Main topics were: quality of life, needs assessments of patients and relatives, resource assessment, surveillance of decision making processes, symptom control as well as spiritual and psychological well-being. The following properties were claimed as essential for outcome criteria sensitivity, without additional burden on patients, easy applicability, scientific validity, and helpful for communication within the team, ethical discussions as well as for quality management.

Conclusions: The study identified topics considered important by experts in clinical practice. The discussions exposed the diversity of demands on outcome assessment put up by different stake holder groups. This diversity impedes the agreement on a unique set of outcome criteria. Further research is needed to test the results in other settings; considering the perspective of patients, bereaved relatives and other professional involved in palliative care. This work was funded by the German Cancer Aid (Deutsche Krebshilfe).

Poster N°: 165

Type of presentation: Poster & Poster Discussion Session
Poster session: First Group 29 May Thursday, 10.30 to 30 May Friday 13.00
Category: Assessment & measurement tools
Title: Development of a computerised pain body map: Expert opinions
Authors:
Frode Jakhelln Laugen Department of Cancer Research and Molecular Medicine Norwegian University of Science and Technology NORWAY
Stein Kaasa Department of Cancer Research and Molecular Medicine, Norwegian University of Science and Technology & Palliative Medicine Unit, Department of Oncology, St. Olav’s Hospital Trondheim NORWAY
Marianne Jensen Hjermstad Department of Cancer Research and Molecular Medicine, Norwegian University of Science and Technology & Department of Oncology, Ulleval University Hospital Trondheim & Oslo NORWAY
Jon Håvard Loge Department of Cancer Research and Molecular Medicine, Norwegian University of Science and Technology & Unit for long term outcome, Department for Clinical Cancer Research, Rikshospitalet Medical Center Trondheim & Oslo NORWAY
Dagny Faksøva Haugen Department of Cancer Research and Molecular Medicine, Norwegian University of Science and Technology & Regional Centre of Excellence for Palliative Care, Western Norway, Haukeland University Hospital Trondheim & Bergen NORWAY

Representering the EPCRC

Background: The European Palliative Care Research Collaborative (EPCRC) is developing a computerised pain assessment and classification tool. A computerised pain body map (CPBM) will be included in the tool and constitutes a new method for assessing pain localisation and intensity in palliative cancer patients. To guide the development of the CPBM, pain treatment experts were asked to rate the importance of different aspects of the CPBM.

Methods: A questionnaire was developed containing 18 questions about projections, different aspects of pain, and if intensity rating should be compulsory if included. The importance of each aspect was scored on a numerical rating scale (0–10). The questionnaire was sent by email to 10 international pain treatment experts recruited from the EPCRC and 26 Norwegian experienced pain or palliative care physicians.

Results: Seven international and 15 Norwegian experts responded (61%). There was a consensus (mean score 9.6) that the CPBM should be used for assessing pain localisation (including extension). The importance of assessing pain radiation was rated 8.0, intensity 7.8, and character (according to pain descriptors) 6.6. Of the 10 alternative body projections, “anterior view of the whole body” was rated highest (mean 9.6), followed by “posterior view of the whole body” (mean 9.3). The other 8 projections were rated much lower. 64% of the experts agreed that rating of pain intensity should be compulsory for all patients if this option was included in the map.

Conclusions: The experts agreed that pain localisation is the most important aspect to include in the CPBM, followed by radiation and intensity. Anterior and posterior views of the whole body were considered sufficient projections in cancer patients. Based on these findings, a CPBM will be developed and demonstrated at the EAPC Research Forum.

Poster N°: 166

Type of presentation: Poster
Poster session: First Group 29 May Thursday, 10.30 to 30 May Friday 13.00
Category: Assessment & measurement tools
Title: Sleep disturbances in advanced disease: a systematic literature review of assessment methods
Presenting author: Marjolein Gyseels
Authors:
Farida Malik Palliative Care, Policy & Rehabilitation Kings College London UNITED KINGDOM
Irene Higginson Department of Palliative Care, Policy & Rehabilitation, Kings College London London UNITED KINGDOM
Marjolein Gyseels Department of Palliative Care, Policy & Rehabilitation, Kings College London London UNITED KINGDOM

Background: Sleep disturbance commonly occurs in patients with advanced disease and has been found to be a ‘recurrent symptom’ towards the end of life. However it is often not recognised by healthcare providers and the evidence for the reliability & validity of sleep instruments still needs to be established. This study identifies methods used to measure sleep disturbance in patients with advanced disease and describe their psychometric properties.

Methods: A systematic literature review was performed using Medline and Psycinfo. All studies describing tools to measure sleep disturbances, their development and evaluation in patients with advanced disease were identified. The psychometric properties of these tools and their coverage of important domains related to sleep in patients with advanced disease are described.

Results: 15 sleep questionnaire tools (9 general sleep measures and 6 disease-specific measures) were identified and described. Few of the tools were validated in advanced disease populations and those that had, had not undergone full psychometric testing. No one tool covered all the domains thought to be
important to those with advanced disease. Qualitative domains highlighted as important were symptoms, disease, medications and thoughts. **Conclusions:** There appears to be no one gold standard for the assessment of sleep disturbance in patients with advanced disease. The choice of measurement tool needs to reflect knowledge required and the study question. A combination of assessment methods is suggested to capture the whole sleep experience such as a self-report questionnaire and the PSQI combined with a specific daytime sleepiness measure i.e. ESS, with information about disease, symptoms and medications. The combination of subjective and objective measurements (i.e. a self-report questionnaire & wrist actigraphy) also provides important information on the whole sleep experience. Future research needs to address aspects of sleep considered important and continue psychometric testing.

**Poster N°: 167**

**Type of presentation:** Poster  
**Poster session:** First Group 29 May Thursday, 10.30 to 30 May Friday 13.00  
**Category:** Assessment & measurement tools  
**Title:** Developing the 'Evaluating Care & Health Outcomes – for the Dying (ECHO-D) ; a questionnaire to evaluate care of patients and their families in the last days of life  
**Authors:**  
Catriona Mayland Palliative Medicine Marie Curie Palliative Care Institute UNITED KINGDOM  
J Addington-Hall University of Southampton Southampton UNITED KINGDOM  
JE Ellershaw Marie Curie Palliative Care Institute Liverpool UNITED KINGDOM  
EMI Williams University of Liverpool Liverpool UNITED KINGDOM  

**Background:** Within the United Kingdom, there is currently no comprehensive, valid and reliable tool to specifically examine the ‘quality of dying’ in the last days of life. Developing and validating such a tool could help assess quality of care for dying patients, the level of family support and the effect of interventions such as the Liverpool Care of the Dying Pathway (LCP).  
**Aims:** To develop and validate a postal self-completion questionnaire about the ‘quality of dying’ for patients and their families. **Method:** Research has identified that relatives provide valid and reliable proxy measures of the quality of dying. Accordingly, potential questions to assess the quality of dying in the last days of life were developed using current literature, existing questionnaires such as VOICES (Views Of Informal Carers – Evaluation of Services) and the goals of the LCP. Expert panel review was used to devise content and wording of a draft questionnaire. A traditional pilot, preliminary test-retest reliability and cognitive pre-testing were undertaken with 18 bereaved relatives. Further assessment of validity and reliability is currently being conducted using a sample drawn from 778 potential participants. Test-retest reliability was assessed by percentage agreement, Kappa statistic and Spearman’s correlation coefficient. Construct validity will be assessed using theoretical hypotheses and confirmatory factor analysis. Internal consistency will be assessed using Cronbach’s alpha. **Results:** The questionnaire development method provided evidence for face and content validity. Assessment of test-retest reliability shows evidence of stability over time, with 71/111 questions having a percent agreement > 70%, Kappa >0.5, and r > 0.6. Further psychometric testing will be conducted as detailed above. **Conclusions:** The analysis plan will determine the questionnaire's validity and reliability as well as identifying areas that require further work and psychometric testing. Guidance regarding the future use of ECHO-D will be discussed.

**Poster N°: 168**

**Type of presentation:** Poster  
**Poster session:** First Group 29 May Thursday, 10.30 to 30 May Friday 13.00  
**Category:** Assessment & measurement tools  
**Title:** Is having an ultrasound service in Specialist Palliative Care Units useful?  
**Authors:**  
Damien McMullan Palliative Medicine Northern Ireland Hospice Care Care UNITED KINGDOM  
Max Watson Northern Ireland Hospice Care Belfast UNITED KINGDOM  
Clare White Northern Ireland Hospice Care Belfast UNITED KINGDOM  
Barbara Cochrane Northern Ireland Hospice Care Belfast UNITED KINGDOM  

**Background:** Ultrasound scanning has proven itself to be an invaluable non-invasive and portable diagnostic tool in a wide range of medical and surgical specialties. Quality as a diagnostic tool is highly operator dependent and use beyond established ultrasound departments was initially questioned. However, with focused abdominal ultrasound scanning now increasingly being practiced by surgical and medical professionals as an aid to clinical assessment, we wanted to explore the value and potential content of such training for palliative care professionals in the hospice setting. **Methods:** A palliative medicine consultant with recognised ultrasound training and many years experience provided an ultrasound service to his colleagues over a twelve month period. The indications for the scan requests and the outcomes were recorded. In addition a survey assessed how worthwhile physicians within the hospice found this service. **Results:** 25 ultrasound scans were requested over a one year period. All patients had advanced malignancy. 12 (48%) of the scans were requested to determine if there was ascites and whether or not this would be amenable to paracentesis. As a result, 7 (58%) of these abdominal scans led to a guided paracentesis. Other common reasons for requesting scans were to assess for biliary duct dilatation 5 (20%) and urinary retention 2 (8%). Palliative physicians and trainees in the unit found this service useful as it aided clinical decision making, symptom management and reduced patient inconvenience in being transferred out of the unit for investigation. **Conclusions:** The use of ultrasound in hospice has been valued by the palliative care doctors. As a result of this review the content of a ten week hospice focused ultrasound course was devised to include assessment of ascites, assessment of bladder contents, and assessment of biliary duct dilatation. These comprised 19 (76%) of all the scans requested. Currently all the medical staff in the hospice are undergoing this training.

**Poster N°: 169**

**Type of presentation:** Poster  
**Poster session:** First Group 29 May Thursday, 10.30 to 30 May Friday 13.00  
**Category:** Assessment & measurement tools  
**Authors:**  
Cheryl Nekolaichuk Palliative Care Program Grey Nuns Community Hospital CANADA  
Crystal Beaumont Cross Cancer Institute Edmonton CANADA  
Sharon Watanabe Cross Cancer Institute Edmonton CANADA  

**Background:** The Edmonton Symptom Assessment System (ESAS) is a commonly used symptom assessment tool for advanced cancer and palliative patients. Since its inception in 1991, the ESAS has been widely adopted by palliative care programs for clinical, administrative and research purposes. The systematic validation of this assessment tool, however, has lagged behind its widespread use. The purpose of this review was to identify and critique validation studies focusing on the ESAS over a 15-year time period (1991–2006). **Methods:** Using a systematic literature search of six databases (MEDLINE, CINAHL, PubMed, HealthStar, Science Direct, EMBASE), the authors identified and screened 87 publications. Thirteen articles were selected for in-depth review, based on the following inclusion criteria: psychometric studies with a primary focus on the ESAS, 1991–2006 publication dates, and peer-reviewed English language publications. **Results:** Of the 13 studies, the majority involved cancer patients (n=11). The format of the ESAS varied across studies, in terms of scale format, item number, item selection, and language. Studies focused on gathering reliability estimates (n=8), content validity evidence (n=1), concurrent validity evidence (n=5), predictive validity evidence (n=1), and sensitivity and/or specificity (n=3). None of the
studies involved patients’ perspectives as a source of validity evidence. 

**Conclusions:** The use of varying instrument formats and limited psychometric evidence support the need for further ESAS validation studies, including the involvement of patients. Funding: CIHR PainNET.

**Poster N°: 170**

**Type of presentation:** Poster  
**Poster session:** First Group 29 May Thursday, 10.30 to 30 May Friday 13.00  
**Category:** Assessment & measurement tools  
**Title:** The frequency, the relative role and reversibility of secondary causes (SC) of impaired oral nutritional intake in advanced cancer patients – a systematic literature review. A project associated with EPCRC  
**Authors:** Aurelius Omlin Oncology, Dept. Int Med & Pall Care Center, IMD Oncological Palliative Medicine SWITZERLAND  
Florian Strasser Oncological Palliative Medicine, Cantonal Hospital St.Gallen SWITZERLAND  
David Blum Oncological Palliative Medicine, Cantonal Hospital St. Gallen SWITZERLAND  
Jochen Walker Oncological Palliative Medicine, Cantonal Hospital St. Gallen SWITZERLAND  
Kim Baumann Oncological Palliative Medicine, Cantonal Hospital St. Gallen SWITZERLAND  
representing the EPCRC

**Background:** Secondary causes (SecC) of impaired oral nutritional intake (O-NI) – are a common and devastating complication of advanced cancer. They may be classified as O-NI with impaired (e.g. mucositis) or normal (e.g. dyspnea) gastrointestinal function/integrity. To evaluate systematically the frequency and the impact on cancer cachexia of SecC of impaired O-NI.

**Methods:** A systematic literature review (MedLine, Cochrane, Embase, PsycINFO, CinAhl; 1995–2007) applied 3 combined search strings ([MeSH], free text): 1. cachexia/anorexia/wasting/malnutrition, 2. cancer and 3. classification/staging. Inclusion criteria of citations, then abstracts and finally papers were advanced cancer, original work, and either A) O-NI correlated with SecC or B) twenty-one predefined factors (SecC) know to be associated with O-NI correlated with weight loss. (O-NI had to be objectively assessed by any method, SecC were based on checklists used by experts in daily clinical practice in 3 independent clinics).  
**Results:** Of 7655 citations, 1409 abstracts and 130 full-papers were reviewed, 7 papers (A: 4, B: 3) were included. From A, two studies (75 & 59 HNO patients [pts]) report impaired O-NI by radiation induced symptoms (oral dryness, swallowing discomfort), depression and taste disturbances. Of 66 pts (solid tumors), those with severe (n=16), moderate (18), and mild (15) chemosensory complaints had lower O-NI than those without. From B, only for mucositis (n=16), moderate (18), and mild (15) chemosensory complaints had lower O-NI correlated with weight loss. (O-NI had to be objectively assessed by any method, SecC were based on checklists used by experts in daily clinical practice in 3 independent clinics).  
**Conclusions:** The concept of SecC of cachexia seems to be well known but so far only little data have been systematically collected. The awareness for SecC may help in palliating the causes and effects of cachexia.

**Poster N°: 171**

**Type of presentation:** Poster  
**Poster session:** First Group 29 May Thursday, 10.30 to 30 May Friday 13.00  
**Category:** Assessment & measurement tools  
**Title:** Sensitivity to changes over time of the FACT-M for patients with stage III or IV melanoma  
**Authors:**  
J. Lynn Palmer Palliative Care and Rehabilitation Medicine UT M.D. Anderson Cancer Center U. STATES  
Janice M. Cormier UT M. D. Anderson Cancer Center Houston U. STATES

**Background:** We recently developed a melanoma-specific module for the Functional Assessment of Cancer Therapy (FACT), a tool for the assessment of quality of life (QOL) in patients with melanoma. The FACT-Melanoma module was found to be reliable and valid when tested in 273 patients with stages I-IV melanoma measured at baseline, 1 week, 3 months and 6 months. This study evaluates the FACT-M sensitivity to change in performance status by examining the total scores as well as the scores from two subscales (MS and MSS) and individual domains: physical well-being (PWB), social well-being (SWB), emotional well-being (EWB) and functional well-being (FWB) for 92 patients with stage III or IV melanoma.  
**Methods:** We compared the QOL scores of 3 groups of patients created on the basis of change in performance status over 3 months (improved, stable, worsened) as measured by the Eastern Cooperative Oncology Group performance status (ECOG) and the Karnofsky Performance Scale (KPS) using Kruskal-Wallis tests.  
**Results:** At 3 months self-reported performance (ECOG) had improved in 17 (18%) patients, worsened in 6 (7%) and remained stable in 69 (75%). Similarly the KPS at 3 months was improved in 29 (32%), worsened in 8 (9%), and remained stable in 55 (60%). The relationships between categories of performance status defined by changes in the KPS were statistically significant (p<0.05) for PWB, EWB, MSS and FACT-M. For example, average FACT-M scores were 12.8 in patients who improved, 7.2 in patients who were stable and −6.3 in patients who worsened. Although not statistically significant all other scores were in the expected direction. Similar results were found when scores were categorized by ECOG scores for all measures except EWB.  
**Conclusions:** The FACT-M was sensitive to change in performance status over 3 months in this subset of patients with stage III or IV melanoma. Although not all relationships were statistically significant in this smaller sample, almost all results were in the expected direction.

**Poster N°: 172**

**Type of presentation:** Poster  
**Poster session:** First Group 29 May Thursday, 10.30 to 30 May Friday 13.00  
**Category:** Assessment & measurement tools  
**Title:** Outcome indicators in palliative care – how to assess quality and success  
**Authors:**  
Tania Pastrana Departament of Palliative Medicine RWTH Aachen University GERMANY

**Background:** The call for good outcome criteria has been raised as assessment of adequate quality of service providers is essential with increasing momentum in the development of palliative care in most European countries. However, the criteria and scales that have been suggested have failed to prove their effectiveness in the differentiation of different settings or in quality management. The aim of this study is to investigate important dimensions and indicators for assessment and evaluation of palliative care from the perspective of German experts in palliative care.  
**Methods:** A focus group, using consensus methods, with 10 experts from different disciplines (physicians, psychologist, theologian, sociologist, social worker, and nursing) was conducted. Participants had to identify and rank important issues in assessment and evaluation in clinical practice. In addition, the essential properties of outcome indicators were discussed.  
**Results:** An abundance of topics (16) were identified, pointing at the complexity of the issue. Main topics were: quality of life, needs assessments of patients and relatives, resource assessment, surveillance of decision making processes, symptom control as well as spiritual and psychological well-being. The following properties were claimed as essential for outcome criteria sensitivity, without additional burden on patients, easy applicability, scientific validity, and helpful for communication within the team, ethical discussions as well as for quality management.  
**Conclusions:** The study identified topics considered important by experts in clinical practice. The discussions exposed the diversity of demands on outcome assessment put up by different stake holder groups. This diversity impedes the agreement on a unique set of outcome criteria. Further research
is needed to test the results in other settings; considering the perspective of patients, bereaved relatives and other professionals involved in palliative care. This work was funded by the German Cancer Aid (Deutsche Krebshilfe).

**Poster N°: 173**

Type of presentation: Poster
Poster session: First Group 29 May Thursday, 10.30 to 30 May Friday 13.00
Category: Assessment & measurement tools
Title: In the jungle of outcome-- A systematic review of outcome assessment in the palliative medicine
Authors:
Tania Pastrana Department of Palliative Medicine RWTH Aachen University GERMANY
Christoph Ostgathe Department of Palliative Medicine, University of Cologne Cologne GERMANY
Lukas Radbruch RWTH Aachen University Aachen GERMANY

**Background:** In the last years there is an increasing interest in outcome assessment in palliative care. Many sectors such as policy makers and other stakeholders as well as clinical research are interested in outcomes. The information from outcome assessment is invaluable for the evaluation of the effectiveness of palliative care interventions. Depending on the measurement tool the results can be used to monitor clinical care, carry out comparative research, provide audit data or support purchasing decisions. The aim of this study is to systematically explore and examine the instruments for outcome assessment that have been used or proposed for research and clinical practice in palliative care. **Methods:** A systematic review of the instruments used to assess outcome in palliative care was conducted using MEDLINE (1966–2007). Additional instruments were identified with the assistance of other professionals working in palliative care and with hand search of key journals. The criterion for the inclusion of instruments was that they had been used for a target population of palliative care. **Results:** The literature research resulted in 72 references. Thirty-four studies with a total of 47 different instruments were included. Instruments contained between 1 and 136 items and covered physical, psychological and spiritual domains. Categorization of the instruments resulted in five major categories: functional ability, health status, psychological well-being, quality of life, social support–network and satisfaction. Each instrument met some but not all of the objectives of measurement in palliative care. **Conclusions:** Hence using outcome assessment in palliative care is considered to improve decision making and patient care, the use of instruments, as yet, is not supported by high quality evidence of clinical and cost effectiveness. [This work was supported by the research grant 107509 of the German Cancer Aid (Deutsche Krebshilfe)].

**Poster N°: 174**

Type of presentation: Poster
Poster session: First Group 29 May Thursday, 10.30 to 30 May Friday 13.00
Category: Assessment & measurement tools
Title: Helplessness: An essential component of despair at the end of life
Authors:
Hayley Pessin Psychiatry Memorial Sloan-Kettering Cancer Center U. STATES
Robert Brescia Calvary Hospital New York U. STATES
Jennifer Abbey Fordham University New York U. STATES
Barry Rosenfeld Fordham University New York U. STATES
Megan Olden Fordham University New York U. STATES
William Breitbart Memorial Sloan-Kettering Cancer Center New York U. STATES
Emily Sachs Fordham University New York U. STATES
Liu Amakawa Fordham University New York U. STATES

**Background:** Despair at the end of life has been characterized by hopelessness, depression, and loss of meaning. Desire for death, suicidal ideation, and requests for assisted suicide have been tied to depression, hopelessness and loss of control in terminally ill patients. Although helplessness is a well-established risk for suicide, the role of helplessness has not been well characterized among terminally ill patients who are particularly vulnerable to these feelings. This study sought to elucidate the relationship of helplessness to despair at the end of life and evaluate its role in identifying the patients at highest risk for suicide. **Methods:** Sixty terminally-ill patients completed a psychosocial interview focusing on aspects of end-of-life despair: hopelessness (BHS), desire for death (SAHD), demoralization (DS), depression (HADS; SCID), and meaning (FACIT). Helplessness was measured with the helplessness subscale of the demoralization scale (items: loss of emotional control, no one can help me, I can’t help myself, & I feel hopeless). Regression and correlational analyses were used to examine the role of helplessness at the end of life. **Results:** Helplessness was strongly correlated (r < .001) with hopelessness (.66), desire for death (.67), demoralization (.91), depression (.63), and meaning (.65). Significant desire for death was predicted only by helplessness and depression. Suicidal ideation was predicted only by helplessness above depression, hopelessness, or loss of meaning. **Conclusions:** Helplessness is a distressing symptom at the end of life and a key component of end of life suffering. Even more than hopelessness, helplessness appears to contribute significantly to desire for death and suicide. Based on these results, it is possible to quickly identify high risk patients with a brief screening of helplessness. Interventions should focus on not only ameliorating depression but also decreasing feelings of helplessness and increasing a sense of control.

**Poster N°: 175**

Type of presentation: Poster
Poster session: First Group 29 May Thursday, 10.30 to 30 May Friday 13.00
Category: Assessment & measurement tools
Title: TKS-Score, a survival prognostic model to home-care palliative programs
Presenting author: Maria Nabal
Antonio Requena Prehospital Medical Emergency Service 061-Aragón SPAIN
Maria Nabal UFISS H. Universitario Arnaud de Vilanova Lérida SPAIN
Roberto Moreno ESAD Sector II Zaragoza SPAIN
Real Rodeles ESAD Sector II Zaragoza SPAIN
Pilar Torrubia ESAD Sector II Zaragoza SPAIN
Laura Jiménez 061-Aragón Zaragoza SPAIN

**Background:** Home care is an increasing area in health programs. Patients characteristics and environment peculiarities ask for specific assessment tools. **Aim:** To develop a survival prognostic index addressed to terminally ill cancer patients who receive palliative care at home by a supportive team. **Methods:** Prospective and inferential survey. N = 173 terminally ill cancer patients admitted for home palliative care from October 2003 to November 2005. Data were collected at the first visit. Variables analysed were: tumour data; presence or absence of signs and 20 symptoms; intensity of signs and symptoms (Likert scale: 0–3); Karnofsky Performance Status Index (KPS) and treatment details. **Results:** Average age was 75.65; KPS median was 50. Survival median was 20 days. After univariate analysis 12 variables were selected for the multivariate analysis. Finally for the TKS-Score model were selected: hepatic metastases, treatment with steroids, use of subcutaneous route, cachexia, cognitive impairment, middle to severe anorexia (2–3/3), severe dyspnea (3/3), severe edema (3/3) and KPS. The area under the curve COR (AUC-COR) for different survival models: 7, 15, 30, 45 days was 0.80. The best predictive estimation takes place at 7 days (AUC-COR: 0.861). **Conclusions:** TKS-Score in a useful prognostic tool in palliative home care. This score can offer better prognostic results when survival is equal or less than 7 days. TKS-Score can classify palliative patients in homogeneous groups of survival.
Poster N°: 176

Type of presentation: Poster
Poster session: First Group 29 May Thursday, 10.30 to 30 May Friday 13.00
Category: Assessment & measurement tools
Title: Validation of a prognostic model based on haematological and biochemical parameters in a new population receiving palliative care treatment at home
Presenting author: María Nabal
Authors:
Antonio Requena Prehospital Medical Emergency Service 061-Aragón SPAIN
Laura Jiménez 061-Aragón Zaragoza SPAIN
Roberto Moreno ESAD Sector II Zaragoza SPAIN
Real Rodeles ESAD Sector II Zaragoza SPAIN

Background: Research on prognostic factors in palliative care is an increasing area of interest. Biological prognostic factors have not been so deeply studied than others like clinical estimation of survival, performance status or symptoms. Objectives: To validate a prognostic model built on biological variables in terminal cancer patients among a new home care sample. Methods: From the 246 patients receiving home-palliative care, 80 completed the inclusion criteria. Variables: urea, lactate dehydrogenase (LDH), serum iron, albumin, leucocytes, neutrophils, CD8 linfocytes, Karnofsky Performance Status Index (KPS), and treatment with steroids. The dependent variable was considered “life lasting less or equal to 30 days”. Predictive power was analyzed by establishing the area under the curve COR (AUC-COR) and comparing the results with the original model. Results: Patients included showed a better KPS (KPS average ± SD: 53 ±11.5 vs 48.5 ±13; p: 0.003) and longer survival (median 42.5 days vs 15.5 days; p: 0.005) than patients not included. After univariate analysis, only leucocytes and neutrophils showed prognostic differences for life lasting less or equal to 30 days. The AUC-COR was 0.633; significant difference was found when compared to the original model: AUC-COR 0.926; p< 0.00001. Conclusions: This model based on biological parameters could not be validated. From our experience, prognostic variables from a blood sample are difficult to be used systematically in home-palliative care settings. Life lasting less or equal to 30 days does not help to establish differences in the home palliative care population under our team supervision.

Poster N°: 177

Type of presentation: Poster
Poster session: First Group 29 May Thursday, 10.30 to 30 May Friday 13.00
Category: Assessment & measurement tools
Title: Validation of the TKS-Score, a survival prognostic model for palliative home care programs
Presenting author: María Nabal
Authors:
Antonio Requena Prehospital Medical Emergency Service 061-Aragón SPAIN
María Nabal UFISS H. Universitari Arnu de Vilanova Lèrida SPAIN
Pilar Torrubia ESAD Sector II Zaragoza SPAIN
Laura Jiménez 061-Aragón Zaragoza SPAIN

Background: After developing a prognostic model, results must be validated in order to assess its prognostic capacity. Objective. To validate the TKS-Score, a survival prognostic model for palliative home care programs, among an independent population to establish its real value in clinical practice. Methods: The TKS-Score was tested among 73 patients collected by a palliative home care supportive team. TKS-Score was calculated by adding the scores of any variable in the model: hepatic metastases, treatment with steroids, use of subcutaneous route, cachexia, cognitive impairment, middle to severe anorexia (2–3/3), severe dyspnea (3/3), severe edema (3/3) and Karnofsky Performance Status Index (KPS). The results were compared to those from the initial model. Results: Comparing both samples, patient characteristics only differ on KPS performance status (KPS average ± SD 52.7±1.43 vs 48.9±12.8; p: 0.017) and primary tumour. The area under the curve COR (AUC-COR) showed a lost of predictive power at 7, 15, 30 and 45 days (AUC-COR: 0.70). The best predictive estimation takes place at 7 days (AUC-COR: 0.715) like in the original model. There were not significant differences between two AUC-COR samples. The model could not establish 3 different survival groups. Conclusions: TKS-Score can be used as a prognostic score even though shows a lost of predictive power from the original sample.

Poster N°: 178

Type of presentation: Poster
Poster session: First Group 29 May Thursday, 10.30 to 30 May Friday 13.00
Category: Assessment & measurement tools
Title: Comparison of populations served by five sites in Sub-Saharan Africa: what effect do “integrated” vs “advanced” care models and hiv/cancer care mixixes have on patient need?
Authors:
Lucy Selman Palliative Care, Policy and Rehabilitation King’s College London UNITED KINGDOM
Tony Moll Philanjalo Hospice Tugela Ferry S. AFRICA
Richard Harding King’s College London London UNITED KINGDOM
Keletso Mmoleli Witswatersrand Palliative Care Johannesburg S. AFRICA
Godfrey Agapio Hospice Africa Uganda Kampalala UGANDA
Dianne Goring South Coast Hospice Port Shepstone S. AFRICA
Thandi Masho HPCA Cape Town S. AFRICA
Liz Gwyther HPCA Cape Town S. AFRICA
Patricia Nlou Philanjalo Hospice Tugela Ferry S. AFRICA
Barbara Panatovic South Coast Hospice Port Shepstone S. AFRICA

Background: Sub-Saharan African services are diverse; some are integrat- ed alongside early intervention. No study has measured comparative needs of the mixed HIV/CA populations, although these needs have conse- quences for development and implementation. Aims: To describe popula- tions cared for by five services, to identify differences in levels of need with respect to model and epidemiology. Methods: As part of an audit cycle, baseline data collected using APCA African POS, upon entry. Results: Site A (advanced, inpatient, Cape Town N=80). Worst problems: Pain (mean 2.91), Symptoms (3.43), Family worry (4.22). HIV associated with more family worry than CA (p<0.05). 65.4% of HIV pts on ART. Site B (rural inpatient early intervention & homecare, KZN N=150). Worst problems: Pain (2.54), Symptoms (2.05), Family worry (3.04). Being older associated with lower life worthwhile score (p<0.05). 84.2% HIV pts on ART. Site C (inpatient & homecare early intervention, KZN N=102). Worst problems: Pain (2.71), Worry (2.24). Life worthwhile (3.15). Being older associated with lower worry score, higher life worth- while and peace scores (p<0.05). 28.4% HIV pts on ART. Site D (advanced homecare, Soweto N=72). Worst problems: Pain (3.88), Symptoms (3.13), Family worry (4.22). Large proportions of pts scored 4–5 on pain (63.89%), symptoms (47.22%), worry (48.61%), family worry (38.89%). 37.7% HIV pts on ART. Site E (advanced homecare, Uganda). Worst prob- lems: Pain (3.76), Symptoms (3.39), Family worry (3.40). HIV pts scored low on help & advice (1.59); CA pts scored high on worry (3.21). 75.6% HIV pts on ART. Conclusions: The services in this study operate across rural/urban/peri-urban areas in South Africa and Uganda, with HIV/CA mixes. Some work with patients from diagnosis; all provide palliative care alongside ART. The APCA African POS detected important differences in population need. Service standards, interventions and audit goals should be modelled accordingly.
Poster N°: 179

Type of presentation: Poster
Poster session: First Group 29 May Thursday, 10.30 to 30 May Friday 13.00
Category: Assessment & measurement tools
Title: Faith and religious or spiritual beliefs of individuals in palliative care
Authors:
Valgerdur Sigurardottir The Palliative Care Unit Landspitali University Hospital ICELAND
Gudlaug Hjóla Ágeirsdóttir Landspitali University Hospital Kopavogur ICELAND

Background: The title of the Research is “Faith and religious or spiritual beliefs of individuals in palliative care”. The purpose of the research is to explore the term “spirituality” in palliative care and then focus on “spirituality” in Christian faith and theology. The relevance of the research is to illuminate faith and religious or spiritual beliefs, to enhance knowledge and understanding of therapists in palliative care on the meaning of spiritual care. The research question is: What is the faith and what are the beliefs of individuals in palliative care. Methods: The research methods are quantitative and qualitative. a) Standardized questionnaire will be set for 30 individuals. The questionnaire addresses well-being in relation to various religious, spiritual and/or existential concerns. The questionnaire has been in development by the “European – Organization on Research and Treatment of Cancer – Quality of life study group”. EORTC QLQ-SWB-38. Phase III. b) Interviews will be taken with 10 individuals. The participants in the research are patients in palliative care and the sample is a random sample. Criteria is that the individual feels himself/herself able to participate in the research because of health reasons. Results: In October 2007 there have been taken five interviews and the questionnaire has been set for 10 individuals. The first data available from the interviews show that the participants declared themselves as religious persons although faith realizes in various ways in their lives. Prayer had an important part and the participants used prayer and it was a part of their being. A great harmony was in the interviews concerning faith but one participant criticized harshly religious institutions. Conclusions: Religious attitudes had impact on life values and opinions concerning death. The data from the questionnaire will be worked out by the EORTC and will be available for interpretation to the study as a whole.

Poster N°: 180

Type of presentation: Poster
Poster session: First Group 29 May Thursday, 10.30 to 30 May Friday 13.00
Category: Assessment & measurement tools
Title: Symptom burden and medications used during the last 72 hours of life in palliative care in patients
Authors:
Valgerdur Sigurardottir The Palliative Care Unit Landspitali University Hospital ICELAND
Inghjörð Hjaltadóttir Landspitali University Hospital Reykjavik ICELAND
Gudrún Dóra Gudmannsdóttir Landspitali University Hospital Reykjavik ICELAND
Páll V. Jónsson Landspitali University Hospital Reykjavik ICELAND

Background: A clinical epidemiological study was conducted in two hospital palliative inpatients units during six months using staff assessments. Methods: The MDS-PC instrument used was filled in at the beginning of service, 2 weeks later and at discharge for all new patients. Assessments referred to the previous 72 hours and covered among others aspects health conditions, cognition, communication, psychosocial well-being, physical functioning, urinary and bowel continence. Furthermore, medication charts were collected from medical notes at the same points in time. Results: Seventy-two patients died during the study period after median time of 28 days in service. Men were 47%, mean age 72 years and most common diagnosis were lung cancer (27%), GI-cancer (17%), prostate cancer and breast cancer (13% each). Heavy symptom burden was documented with 90% of the patients having more than five symptoms during the last 3 days. Cardinal symptoms were as expected fatigue, pain, cognitive impairment, lack of appetite and impaired endurance. Constipation was on the other hand enlisted in half of the patients and nausea in one third. All medications, both regular and as needed, were registered according to the ATC Classification together with total daily doses. In the last 72 hours of life mean of 16 (range 2–30) preparations were obtained. All but one patient received some type of pain and psycholeptic medications; 83% were on opioid medications, mainly metoclopramidum and esomeprazolum; 62% on corticosteroids and 15% still on antibiotics. One quarter of the patients was on transdermal fentanyl and 96% received some type of morphine. Haloperidol was used in half of the patients, diazepamum in 78% and midosalamum in one fourth. Correlation between symptoms, medications and doses will be studied and presented. Conclusions: Staff documented heavy symptom burden with dying patients in spite of good assess to wide variety of medications. Many drugs were continued even on the last 3 days on life.

Poster N°: 181

Type of presentation: Poster
Poster session: First Group 29 May Thursday, 10.30 to 30 May Friday 13.00
Category: Assessment & measurement tools
Title: Assessment of self-care in palliative cancer patients – does wording of items matter?
Authors:
Birgitte Stone Institutt for Kreftforskning og molekyler medicin NTNU NORWAY
Stein Kaasa Dept. of Cancer Research and Molecular Medicine, Faculty of Medicine, Norwegian University of Science and Technology (NTNU) and Palliative Medicine Unit, Department of oncology, St.Olavs Hospital Trondheim NORWAY
Gerd Inger Ringdal Department of Psychology, Norwegian University of Science and Technology (NTNU) Trondheim NORWAY
Line Oldervoll Dept. of Cancer Research and Molecular Medicine, Faculty of Medicine, Norwegian University of Science and Technology (NTNU) Trondheim NORWAY
Marit Jordhøy Palliative Medicine Unit, Department of Oncology, Ullevål University Hospital Oslo NORWAY
Jorunn L. Helbostad Dept. of Cancer Research and Molecular Medicine, Faculty of Medicine, Norwegian University of Science and Technology (NTNU) and Dept. of Neuroscience, Faculty of Medicine, NTNU Trondheim NORWAY

Background: Self-care is a central dimension of physical functioning in palliative care. Items of different self-care assessment tools are inconsistently phrased and there is currently no consensus on the wording of items. Some are phrased as the ability, other as difficulty or need of assistance in performing an activity. The aim of this study is to assess how wording of self-care items affect responses. Methods: 83 palliative cancer patients taking part in an exercise study completed a questionnaire consisting of 14 items on 12 various self-care activities. The items were identified through a systematic literature review and expert opinions. Two activities “taking on pants” and “drying the whole body” were asked in two different ways: Do you have difficulties with...? and Do you need assistance with...? Response categories were 1= not at all, 2= a little, 3= quite a lot and 4= very much. Results: Participants were from 35 to 86 years (mean 64 years), 58% were women. The most prevalent cancer types were colon (25%), breast (16%) and prostate (15%). Out of all 14 items, “taking on
Poster N°: 182

Type of presentation: Poster
Poster session: First Group 29 May Thursday, 10.30 to 30 May Friday 13.00
Category: Assessment & measurement tools
Title: Psychometric assessment of the Taiwanese version of McGill Quality of Life Questionnaire (MQOL-Taiwan)
Authors:
Woung-Ru Tang Department of Nursing Chang Gung University TAIWAN

Background: McGill Quality of Life Questionnaire (MQOL) is a subjective questionnaire that covers many aspects of life for terminal patients. MQOL has been published in many languages and is highly reputable in its validity and reliability. However, the validity and reliability of the MQOL has not been established for a Taiwanese sample. Thus, the purpose of this study is to establish the validity and reliability of the Taiwanese version of MQOL (MQOL-Taiwan) and to evaluate the quality of life of terminally ill cancer patients.

Methods: A total of 240 terminally ill cancer patients from northern, central, and southern Taiwan participated in this cross-sectional descriptive study.

Results: An exploratory factor factor analysis identified five key elements in MQOL-Taiwan (i.e., physical symptoms, psychological well-being, life meaning, satisfaction with life, and social support). These five elements explained 58.87% of the variance in quality of life. The overall reliability was established with a Cronbach’s α of 0.85. The reliability of subscales is presented with Cronbach’s α of between 0.72 and 0.88.

In terms of validity, correlations between the MQOL-Taiwan and the Single Item Scale (SIS), Spiritual Well-Being Scale (SWBS), Medical Outcomes Study Social Support Survey (MOS-SS), ECOG-PSR and pain intensity scale were all statistically significant, in the low to moderate levels.

Conclusions: According to the findings of this study, we find that MQOL-Taiwan has stable validity and reliability. Satisfaction with life is an important aspect in the quality of life for terminal patients. Of the five subscales, it had the second worst score, after physical symptoms.

Poster N°: 184

Type of presentation: Poster
Poster session: First Group 29 May Thursday, 10.30 to 30 May Friday 13.00
Category: Assessment & measurement tools
Title: The Distress Thermometer: a review on studies evaluating its use in clinical practice
Authors:
Silvia van Dooren Medical Psychology and Medical Oncology Erasmus MC NETHERLANDS
Marjolein Bannink Erasmus MC, Psychosocial Care Rotterdam NETHERLANDS
Jan Passchier Erasmus MC, Medical Psychology Rotterdam NETHERLANDS
Cees van der Rijt Erasmus MC, Medical Oncology Rotterdam NETHERLANDS

Background: The Distress Thermometer (DT) (NCCN®), a one-question tool to screen for distress, has been internationally validated and cut-off scores for referral to psychosocial workers have been established. The added problem list (PL) consisting of five domains of possible distress provides the health care worker with additional information. Aim: To present studies in which the usefulness of the DT/PL in clinical practice is investigated. Methods: In PubMed and Web of Science “distress thermometer” was searched; non-English papers and conference abstracts were excluded.

Results: Of 19 original articles, only 5 specifically studied the use of the DT in clinical practice. In one study the PL was added. The DT was administered in the waiting room before consultation (2 studies) or as part of a screening list for a referral program (3 studies). Studied populations were (advanced) cancer outpatients (3 studies), admitted cancer patients (1 study), and HIV patients (1 study). Outcome measures were the completion rate (77–98%, 5 studies), the extent in which patients agreed to be referred (28%, 1 study) or were referred (23–18%, 2 studies). One study compared the percentage of patients referred before and after the implementation of the DT and found a significant higher proportion of referrals after implementation (2.5%). The DT was considered useful either in itself or as part of an extensive screening instrument, although the referral program in one outpatient study was too time-consuming, in that the psychiatrist was not always available. One study particularly emphasized the usefulness of the DT in enhancing the doctor-patient communication by encouraging a dialogue during the consultation.

Conclusions: The findings on the use of the DT for clinical practice are promising. However, the specific contribution of the DT/PL within the doctor-patient consultation as well as the use of the DT for daily practice in admitted patients, need to be further established.

Poster N°: 185

Type of presentation: Poster
Poster session: First Group 29 May Thursday, 10.30 to 30 May Friday 13.00
Category: Assessment & measurement tools
Title: How to screen for depression in palliative care patients?
Presenting author: Franca Warmenhoven
Authors:
Eric van Rijswijk Dept of Primary Care Radboud UMC NETHERLANDS
Cees Kan Dept of Psychiatry, Radboud University Medical Centre Nijmegen NETHERLANDS
Anne Speckens Dept of Psychiatry, Radboud University Medical Centre Nijmegen NETHERLANDS
Chris van Weel Dept of Palliative Care, Radboud University Medical Centre Nijmegen NETHERLANDS

Background: Depression is highly prevalent (4 and 58%) in palliative care patients with advanced metastatic disease were reported. A proportion of the patients suffer from a depressive disorder as defined in the DSM IV, others experience symptoms of depression and low mood. Both are associated with lower quality of life and is a burden for patients and their caregivers. Recognition of depressive disorders by physicians is not optimal. This study aims to determine the validity of the Beck Depression Inventory (BDI) to screen for depressive disorders in palliative care patients. Methods: Patients with advanced metastatic disease visiting the outpatient palliative care department. Patient survey using the BDI and two other screening questions using the PRIME MD as gold standard for the clinical diagnosis of depressive disorder. Pain intensity was also measured using a VAS. Results: 61 patients with a mean BDI score of 14.4 (SD 9.4), 21% of the patients had a depressive disorder according to the PRIME MD. Using a cut off point of 15/16 (AUC 0.82) the sensitivity was 90%, the specificity was 69%, PPV 0.45 and NPV 0.96. For the two simple screening questionnaires the sensitivity was 71%, the specificity was 87%, PPV 0.50, NPV 0.94 Depression was related to actual pain (r=0.76). Conclusions: The validity of both the BDI and the simple screening questions to screen for depressive disorders is reasonable. In clinical practice the simple screening questions can be used
Quarterly. The results are used in a larger primary and secondary care study using different screening instruments and the Schedules for the Clinical Assessment in Neuropsychiatry (SCAN) as golden standard.

**Poster N°: 186**

Type of presentation: Poster  
Poster session: First Group 29 May Thursday, 10.30 to 30 May Friday 13.00  
Category: Assessment & measurement tools  
Title: ed distress: Review of item candidates by experts  
Presenting author: Florian Strasser  
Authors:  
Jochen Walker Oncology & Palliative Care Canton Hospital St. Gallen SWITZERLAND  
Kim Baumann Oncology & Palliative Care, Canton Hospital St. Gallen SWITZERLAND  
Florian Strasser Oncology & Palliative Care, Cantonal Hospital St. Gallen SWITZERLAND  
representing the EPCRC  
Background: Anorxia/cachexia (ACS) is a frequent complication of advanced cancer with poorly understood psychosocial impact or eating-related distress. For better evaluation and management of individual patients with ACS we aim to develop a computerized adaptive test. The review, and revision of item candidates is an essential groundwork towards a new patient reported outcome instrument. **Objectives:** Thorough review of items by experts as one justification to claim content validity and to reduce patient burden in the following development stages. **Methods:** Based on a qualitative study with 19 advanced cancer patients having weight loss, a set of 132 items was formed by a study group member. 2 other members refined the set to 122 items. This initial item set had to pass through a sequence of steps: 1) review by experts from 3 occupational categories: medical doctors, nurses, and dietitians; 2) based on the review comments, items were assigned to 5 categories: A) similar content, B) no comment and “delete” or “change” rating, C) incomprehensible, or multi-barrelled, D) emotional stressing, E) no comment and “retain” rating; 3) The classified items are revised and worded by a language specialist and a psycho-oncology expert. **Results:** A quantitative text analysis of the initial item set showed an average of 13.7 words per item, and a sum of 9 foreign words. All items were reviewed by at least 3 experts (one from each occupational category). Twenty items were rated with “retain” by all reviewers, one item was rated with “delete” by all reviewers, and 101 items had mixed ratings with at least one “change” or “delete” rating. Item categorization based on reviewer comments revealed 12 items in category A, 7 items category B, 80 items in category C, 3 items in category D, and 20 items in category E. 90 items were forwarded to external specialists for revision and wording. **Conclusions:** This is the first item pool on psychosocial consequences of ACS.

**Poster N°: 187**

Type of presentation: Poster  
Poster session: First Group 29 May Thursday, 10.30 to 30 May Friday 13.00  
Category: Assessment & measurement tools  
Title: The Edmonton Symptom Assessment System (ESAS): what do patients think?  
Authors:  
Sharon Watanabe Oncology/Palliative Care Medicine University of Alberta CANADA  
Crystal Beaumont Alberta Cancer Board Edmonton CANADA  
Asifa Mawani Alberta Cancer Board Edmonton CANADA  
Cheryl Nekolaichuk University of Alberta Edmonton CANADA  
Background: The ESAS is a self-reporting tool of symptom intensity by advanced cancer patients. It consists of numerical rating scales for 9 common symptoms, with the option of adding a 10th. Despite its widespread use in palliative care, few studies have focused on its psychometric properties, with none involving patient perspectives. A survey of nurses suggested that patients may be interpreting the ESAS differently from what was intended. The purpose of this study was to gather validity evidence for the ESAS, by examining patients’ cognitive processes while completing the ESAS, understanding of terminology and numerical ratings, and opinions of the ESAS as a self-reporting tool. **Methods:** English-speaking advanced cancer outpatients, newly referred to a Pain and Symptom Consultation Service in a cancer centre, were recruited. Using a qualitative “think aloud” study design, patients completed the ESAS independently, in the presence of a researcher assistant who prompted them to verbalize their thoughts. They then answered a structured questionnaire to elicit their opinions of the ESAS. Written transcripts of 20 audio taped sessions were coded and analyzed independently by at least two research team members. **Results:** 22 patients participated; 2 were excluded due to cognitive impairment and tape-recording error. Symptom ratings were influenced by factors such as current symptom profiles, past symptom experiences, patient perceptions and temporal changes. Symptom interpretation and numerical rating assignments varied across individuals. Words that were difficult to understand included: tiredness vs. drowsiness, depression, anxiety, appetite and wellbeing. Constipation was frequently cited as an additional symptom. Most patients agreed with the item order and thought the ESAS was easy to complete, in the presence of a health care professional. Patients expressed a need to emphasize the timeframe as “now”. **Conclusions:** Modification of the tool and administration process is recommended. Funded by CIHR PainNET.

**Poster N°: 188**

Type of presentation: Poster  
Poster session: First Group 29 May Thursday, 10.30 to 30 May Friday 13.00  
Category: Assessment & measurement tools  
Title: A survey of user groups representing a range of diagnoses to assess the acceptability and relevance of SPARC  
Authors:  
Michelle Winslow Academic Unit of Supportive Care University of Sheffield UNITED KINGDOM  
Sam Ahmedzai University of Sheffield Sheffield UNITED KINGDOM  
Karen Collins University of Sheffield Sheffield UNITED KINGDOM  
Nisar Ahmed University of Sheffield Sheffield UNITED KINGDOM  
Philippa Hughes University of Sheffield Sheffield UNITED KINGDOM  
Bill Noble University of Sheffield Sheffield UNITED KINGDOM  
Simon Walters University of Sheffield Sheffield UNITED KINGDOM  
Background: The Sheffield Profile for Assessment and Referral for Care (SPARC) is a multi-dimensional screening questionnaire to facilitate the referral of patients with advanced illnesses, regardless of diagnosis, to supportive care services. This project has elicited consumer views regarding the acceptability and relevance of SPARC used as an assessment of need for supportive care in the context of a wide variety of diagnoses. **Methods:** A self-complete postal questionnaire was distributed to consumer groups concerned with serious and life threatening disease such as cancer, mental disorders and medical conditions. Contact details of groups are in the public domain, and the groups were asked to pass on the questionnaire together with the SPARC to members. The questionnaire focused on their views and perceptions of SPARC. **Results:** Thirty eight groups circulated their questionnaires, and 135 questionnaires were returned. A majority of users (93%) found SPARC easy to complete and 60% of respondents found it relevant to them or their relatives, with a further 19% envisaging that it might be relevant for them in the future. Themes emerging from comments were: • Relevant to a wide range of diagnoses. • Easy to understand • Quick to fill in • Relevant for professionals. • Sensitive questions – but worthwhile. **Conclusions:** Consumers appear to consider that SPARC is an acceptable and relevant tool for clinical assessment of supportive care needs for patients with a wide variety of diseases.
Poster N°: 189

**Type of presentation:** Poster
**Poster session:** First Group 29 May Thursday, 10.30 to 30 May Friday 13.00
**Category:** Basic & translational research
**Title:** Identification of an alternative, putative promoter and new alternatively spliced transcripts from the human µ opioid receptor gene, OPRM1

Authors:
Sonja Andersen Department of Cancer Research and Mol. Medicine NTNU NORWAY
Hans Einar Krokan NTNU Trondheim NORWAY
Cecilie Baar NTNU Trondheim NORWAY
Sonja Andersen NTNU Trondheim NORWAY
Trude Teoline Rakvåg NTNU Trondheim NORWAY
Eivør Langsland NTNU Trondheim NORWAY
Tor-Morten Kvam NTNU Trondheim NORWAY
Torill Fladvad NTNU Trondheim NORWAY
Frank Skorpen NTNU Trondheim NORWAY

Opioids exert most of their clinical effects through binding to µ opioid receptor. The gene encoding this receptor, OPRM1, contains several coding regions (exons) which may be combined in different ways by alternative splicing to generate distinctive mRNAs. We have identified several new, alternatively spliced transcripts from the OPRM1 gene. Generation of these transcripts involves two different promoters; P1 and a new putative promoter P2, giving rise to mRNA transcripts with unique 5’ ends. An important question is whether these differentially spliced transcripts may encode µ opioid receptor variants with different pharmacological properties. One of the new identified transcripts, hMOR-1A2?, resembles the previously described variant hMOR-1A except that the first exon is missing. This implies that the putative putative promoter encoded by this transcript lacks the first of the seven transmembrane-spanning segments believed to be essential for opioid binding. Transcription of hMOR-1A2? involves the putative promoter P2, which is located upstream of exon 2. A previously described receptor variant, termed µ3 (now hMOR-1W?), is also lacking exon 1, but is different from hMOR-1A2? in its 3’ end. We have identified a new variant, hMOR-1W, which contains the sequences of µ3 (or hMOR-1W?), but this new variant includes exon 1. In order to examine the different splice variants of the µ opioid receptor in more detail, we have made DNA constructs containing the different receptor variants fused to a fluorescent tag (GFP, CFP) at their C-terminal end, and expressed these transiently and stably in HEK293 cells. We have examined the cellular localization of the different receptors and how this is influenced by exposure to different opioids. We have also measured intracellular levels of cAMP after treatment with opioids and looked for similarities and differences between the variants of the µ receptor.

**Poster N°: 190**

**Type of presentation:** Poster & poster discussion session
**Poster session:** First Group 29 May Thursday, 10.30 to 30 May Friday 13.00
**Category:** Basic & translational research
**Title:** Constipation and genetic variation in opioid receptors.

Authors:
Joanne Dronce Palliative Medicine Royal Marsden Hospital UNITED KINGDOM
Ken Welsh Imperial College London UNITED KINGDOM
Sophy Grettal Royal Marsden Hospital / Imperial College London UNITED KINGDOM
Hiroe Sato Imperial College London UNITED KINGDOM
Julia Riley Royal Marsden Hospital London UNITED KINGDOM
Joy Ross Imperial College London UNITED KINGDOM

**Background:** Opioid receptors, especially mu and delta, are present on gut musculature and neural innervations where they play an important role in the regulation of gut function. The gastrointestinal effects of morphine are mediated primarily by mu opioid receptor activation. Furthermore, novel drugs acting at gut opioid receptors are being proposed as selective antagonists to the constipating effects of opioids. **Methods:** The aim of this study was to investigate whether variation in genes coding for mu, delta and kappa opioid receptors are associated with variation in constipation in cancer patients on opioids. This was an observational study carried out in a tertiary referral cancer hospital and 274 cancer patients taking oral morphine were recruited. Clinical data collected included a subjective patient assessment of constipation in the preceding week and laxative use. The clinical data was used to phenotype inter-individual variation in constipation on opioids. Single nucleotide polymorphisms (SNPs) in the genes coding for mu, delta and kappa opioid receptors were identified and genotypes for 21 SNPs were determined using sequence-specific primers in a polymerase chain reaction. **Results:** There is no significant association between the constipation on opioids and single nucleotide polymorphisms in the mu or kappa opioid receptor. There is a significant association with a polymorphism in the gene coding for the delta opioid receptor (p=0.03), an association so weak as to be unlikely to be clinically relevant. **Conclusions:** Polymorphisms in the opioid receptor gene subgroups are not relevant to the clinically observed inter-individual variation in constipation on opioids.

**Poster N°: 191**

**Type of presentation:** Poster
**Poster session:** First Group 29 May Thursday, 10.30 to 30 May Friday 13.00
**Category:** Cognitive symptoms and delirium
**Title:** Subcutaneous olanzapine for hyperactive or mixed delirium in a comprehensive cancer center

Authors:
Marvin Delgado-Guay Palliative Care and Rehabilitation Medicine M.D. Anderson Cancer Center U. STATES
Eardie Curry U.T. M.D. Anderson Cancer Center Houston, TX U. STATES
Eduardo Bruera U.T. M.D. Anderson Cancer Center Houston, TX U. STATES
Timoteos Paraskevopoulos U. T. M.D. Anderson Cancer Center Houston, TX U. STATES
Mark Munsell U. T. M.D. Anderson Cancer Center Houston, TX U. STATES
Ahmed Elsayem U.T. M.D. Anderson Cancer Center Houston, TX U. STATES
Bianca Calderon U.T. M.D. Anderson Cancer Center Houston, TX U. STATES
Henrique Parsons U.T. M.D. Anderson Cancer Center Houston, TX U. STATES

**Background:** Delirium is a multifactorial syndrome that causes significant distress in patients (pt) with advanced cancer (ca). Efforts to treat reversible causes need to be performed and aggressive symptom management, especially for the agitation, needs to be implemented. Haloperidol (H) is used as a first line therapy. Oral olanzapine (OLZ) can be effective to control agitation in delirium; intramuscular OLZ has been approved for the control of agitation in schizophrenia and mania. There is no evidence if subcutaneous (sc) route can be safe and efficacious after its administration. Purpose: To determine the safety and tolerability of sc OLZ in the management of hyperactive or mixed delirium. **Methods:** In our acute palliative care unit, 24 ca pt with hyperactive/mixed delirium (Richmond Agitation Sedation Scale (RASS) of at least +1) not responding to at least 10 mg of parenteral H over 24 hours (hr). The pts received OLZ 5 mg sc every 8 hr for 3 days and continued with H for breakthrough agitation. If pt required H more than 8 mg daily, OLZ was increased to 10 mg sc every 8 hr. We evaluated injection site reaction, systemic toxicity, and efficacy (RASS <1 and H < 8 mg/24 hr on the last study day). **Results:** Median age was 57 years (range 21–76), 8 pt were female; primary was lung (11), gastrointestinal (5), genitourinary (4), and other (4). The main factor related to delirium was dehydration (6pt), liver failure (4), leptomeningeal disease/brain metastasis (5), opioid-induced neurotoxicity (3), hypercalcemia (2), and others (4).
There was no injection site toxicity after 165 injections. Systemic toxicity was observed in 2 pt (8%, one diabetes insipidus, and the other severe hypotension <90/50). Efficacy was achieved in 8 of 14 evaluable pt.

**Conclusions:** Sc OLZ is well tolerated and can be effective in controlling agitation in ea pt with hyperactive/mixed delirium, not responding to H. Further research is needed.

**Poster N°: 192**

**Type of presentation:** Poster  
**Poster session:** First Group 29 May Thursday, 10.30 to 30 May Friday 13.00  
**Category:** Cognitive symptoms and delirium  
**Title:** Use of the 10 point abbreviated mental test score on admission to a specialist palliative care unit  
**Authors:**  
DamiMcMullan Palliative Medicine Northern Ireland Hospice Care UNITED KINGDOM  
Julie Doyle Northern Ireland Hospice Care Belfast UNITED KINGDOM  
Clare White Northern Ireland Hospice Care Belfast UNITED KINGDOM  
Barbara Cochrane Northern Ireland Hospice Care Belfast UNITED KINGDOM

**Background:** Due to a high incidence of cognitive impairment in palliative care patients a baseline assessment of cognitive function is useful. While detailed assessment is often necessary, this review assesses the usefulness of performing a 10 point abbreviated mental test score (AMTS) on admission to a specialist palliative care unit (SPCU) as a screening tool for the presence of cognitive impairment. **Methods:** A retrospective review was performed of the charts of 50 randomly selected patients who were admitted to a SPCU over 2 years. The admission proforma, which includes an AMTS, was reviewed to determine the incidence of confusion, the causative factors, treatments and outcomes. **Results:** All 50 charts were included. 48 patients had advanced malignancy and 2 had advanced non-malignant disease. 13 (26%) scored 10/10 and 11 (22%) did not have an AMTS performed as they were deemed ‘fully alert and orientated’ by the admitting doctor. 20 (40%) patients scored between 4 and 9/10. 6 (12%) were deemed ‘unable to cooperate’ with the test. A variety of reversible causes was found for the reduction in scores including opioid toxicity, infection, dehydration, renal failure, and brain metastases. In 10 (20%) the cause of confusion was multifactorial. With treatment of the suspected underlying cause(s), confusion totally resolved in 5 (10%) and partially resolved in a further 7 (14%). Improvements were as described in the medical notes. 5 (10%) were thought to have a reduced score due to a chronic irreversible dementia process. **Conclusions:** A reduced AMTS is common in patients admitted to a SPCU. The aetiology of this is often multifactorial, and not always reversible. However, a significant number of patients appear to have complete resolution of their confusion when causes are correctly identified and treated. Further evaluation of the usefulness of the AMTS in palliative care is needed.

**Poster N°: 193**

**Type of presentation:** Poster  
**Poster session:** First Group 29 May Thursday, 10.30 to 30 May Friday 13.00  
**Category:** Cognitive symptoms and delirium  
**Title:** The effects of chronic non-malignant pain and of long-term opioid therapy on working memory and attention.  
**Authors:**  
Halvard Nielsen Department of Cancer Research and Mol. Medicine NTNU NORWAY  
Nils I. Landtøn Aalesund Hospital Aalesund NORWAY  
Stein Kaasa NTNU Trondheim NORWAY  
Petter Borchgrevink NTNU Trondheim NORWAY

**Background:** The objective was to study the effects of long-term opioid therapy in chronic non-malignant pain patients on cognitive functioning. **Methods:** Twenty chronic non-malignant pain patients not using opioids (CP), twenty chronic pain patients on long-term codeine therapy (CPO) equipotent to daily orally mean 40 mg morphine, and twenty healthy controls (HC) were included. Three tests were administrated: Letter-Number Span test (LNS); working memory capacity; Paced Auditory Serial Addition Task (PASAT); working memory executive attention, Stroop color naming test (Stroop); selective attention. The subjects were tested two times (T1 and T2) the same day with 5 hours interval, the codeine group both at therapeutic and sub-therapeutic levels. The main outcomes were Working memory capacity, Working memory executive control, and Selective attention. **Results:** The CPO group showed significant impaired performance on the PASAT at T2 compared to healthy controls (p 0.021). **Conclusions:** Chronic pain patients on long-term opioid treatment had significant impaired executive control compared to HC. The differences were particularly manifested in the last part of PASAT indicating reduced perseverance. Cognitive impairments should be specifically targeted in treatment of chronic pain patients both for diagnosing, treatment and rehabilitation.
**Poster N°: 195**

Type of presentation: Poster
Poster session: First Group 29 May Thursday, 10.30 to 30 May Friday 13.00
Category: Dyspnoa & breathelessness
Title: Effect of Hydromorphone on Ventilation in Palliative Care Patients with Dyspnoea
Authors: Katri Elina Clemens Department of Science and Research, Centre for PM University of Bonn, Malteser Hospital Bonn GERMANY
Eberhard Klaschik Centre for Palliative Medicine, Malteser Hospital Bonn, University of Bonn Bonn GERMANY

**Background:** The aims of the study were to verify the efficacy of hydromorphone for the management of dyspnoea and assess its effect on ventilation in palliative care patients. **Methods:** 14 patients admitted to our PCU were included in this prospective, non-randomised trial. At admission, all patients suffered from dyspnoea. The intensity of dyspnoea was measured using a numeric rating scale (NRS 0–10). Peripheral oxygen saturation (SpO2), transcutaneous arterial pressure of carbon dioxide (tcpaCO2), respiratory rate (f) and pulse frequency (PF) during the titration phase with hydromorphone for symptomatic therapy of dyspnoea were measured transcutaneously by means of a SenTec Digital Monitor (SenTec AG, Switzerland). The authors compared dyspnoea scores and changes in respiratory parameters over time as compared to baseline using the Wilcoxon matched pairs signed rank sum test. P values <0.05 were judged as statistically significant. The results were calculated using SPSS. **Results:** The mean hydromorphine single dose was 2.5±1.8 mg (0.5–6.0 mg). As early as 30 min after the first hydromorphone application, mean respiratory rate decreased from 38.3±4.9/min (range 30.0–45.0/min) to 34.6±4.2 (29.0–41.0); after 120 min to 29.0±3.1/min (range 24.0–33.0/min), (P = 0.001) breaths/min. The other monitored respiratory parameter, however, showed no significant changes. A significant improvement was shown in the intensity of dyspnoea (NRS 0–10: 5.2±1.5 (4–8) / 6.4±2.1 (4–10) vs. 1.1±0.9 (0–3) / 2.3±1.3 (1–5); P=0.001). **Conclusions:** Neither was there a significant decrease in SaO2 nor a significant increase in tcpaCO2 after the initial hydromorphone application, i.e. there was no hydromorphone-induced respiratory depression. Already the first hydromorphone application resulted in a significant decrease in the intensity of dyspnoea and respiratory rate.

**Poster N°: 196**

Type of presentation: Poster
Poster session: First Group 29 May Thursday, 10.30 to 30 May Friday 13.00
Category: Dyspnoa & breathelessness
Title: Use of oxygen and opioids in the palliation of dyspnoea in hypoxic and non-hypoxic palliative care patients: a prospective study
Authors: Katri Elina Clemens Department of Science and Research, Centre for PM University of Bonn, Malteser Hospital Bonn GERMANY
Eberhard Klaschik Centre for Palliative Medicine, Malteser Hospital Bonn, University of Bonn Bonn GERMANY
Ines quednau Centre for Palliative Medicine, Malteser Hospital Bonn, University of Bonn Bonn GERMANY

**Background:** Dyspnoea is a highly prevalent and distressing symptom in palliative care patients. Opioids are the first-line therapy for symptomatic relief of dyspnoea in palliative medicine whereas the role of oxygen is still unclear. This study assessed the effects of symptomatic oxygen and opioid treatment on ventilation and relief of dyspnoea in hypoxic and non-hypoxic palliative care patients. **Methods:** In a prospective, non-randomised study 46 patients with mild to severe dyspnoea were included. Transcutaneous measurement (earlobe sensor) of carbon dioxide partial pressure (tcpaCO2), pulse oximetry oxygen saturation (SaO2) and pulse frequency (PF) were monitored with SenTec Digital Monitor. Compared was: Baseline data of the continuously documented respiratory parameters for about 15 min in patients breathing room air at admission, 30 min during nasal O2-insufflation, and 30, 60, 90 and 120 min after the first opioid application and without O2-insufflation. **Results:** Measurements showed no significant differences between the groups of hypoxic and non-hypoxic patients with regard to tcpaCO2 increase or SaO2 decrease after opioid application. There was no opioid-induced respiratory depression. Already the first opioid application resulted in a significant decrease in the intensity of dyspnoea and respiratory rate. O2-insufflation had no effect on the intensity of dyspnoea. **Conclusions:** No higher risk of respiratory depression and increase in tcpaCO2 in hypoxic palliative care patients, as compared to non-hypoxic patients, during symptomatic therapy of dyspnoea with opioids could be found. Oxygen should be given based on clear indication.

**Poster N°: 197**

Type of presentation: Poster
Poster session: First Group 29 May Thursday, 10.30 to 30 May Friday 13.00
Category: Dyspnoa & breathelessness
Title: Is morphine an effective and safe treatment option in the management of dyspnoea in patients with amyotrophic lateral sclerosis?
Authors: Katri Elina Clemens Department of Science and Research, Centre for PM University of Bonn, Malteser Hospital Bonn GERMANY
Eberhard Klaschik Centre for Palliative Medicine, Malteser Hospital Bonn, University of Bonn Bonn GERMANY
Ines quednau Centre for Palliative Medicine, Malteser Hospital Bonn, University of Bonn Bonn GERMANY

**Background:** The aim of the study was to verify the efficacy and safety of morphine for the management of dyspnoea in patients in the final stage of amyotrophic lateral sclerosis (ALS). Furthermore, to assess its effect on ventilation, and investigate whether nasal O2-insufflation previous to morphine application leads to a decrease in the intensity of dyspnoea. **Methods:** A prospective, non-randomised study 6 dyspnoeic ALS patients were included. The intensity of dyspnoea was measured using a numeric rating scale (NRS 0–10). Ratings were recorded at rest. Transcutaneous carbon dioxide partial pressure (tcpaCO2), pulse oximetry, oxygen saturation (SaO2) and pulse frequency (PF) were continuously monitored during nasal insufflation of O2 previous to and also after the first morphine application. The programme SPSS was used for statistical evaluation. Descriptive methods (mean±SD) were used for comparative quantification of dyspnoea and anxiety. Karnofsky Performance Index was given in median (range). Wilcoxon Test was employed for comparative testing. The P values cited were two-sided, and P values <0.05 were judged as statistically significant. Pearson’s correlation coefficient (r) was used to calculate the correlation of dyspnoea intensity with anxiety. **Results:** O2-insufflation produced no significant decrease in the intensity of dyspnoea (p = 0.317). Anxiety of choking was highly significant correlated with intensity of dyspnoea (r = 0.861, p=0.028) in all patients. Both respiratory rate (from 42.0±6.0/min to 29.0±4.0) (p=0.027) and intensity of dyspnoea (from 7.5± 1.9 to 1.8± 0.8) (p=0.027) showed a significant decrease 120 min after morphine application. Neither a significant tcpaCO2 increase nor SaO2 decrease were shown. **Conclusions:** Therapeutic doses of morphine were an effective and safe treatment option for management of dyspnoea in ALS patients; respiratory depression did not occur. According to the patients’ ratings on NRS, the intensity of dyspnoea did not improve during O2-insufflation.
**Background**: The study aimed to identify reasons for referral, expectations, and experience of referring to BIS, and referrers’ views on its future development. **Methods**: Study population: Referrers (GP, respiratory nurses, respiratory physicians) of patients with advanced COPD recruited to a delayed intervention RCT of BIS versus standard care. Study design & methods: Audio taped qualitative interviews with nine referrers following discharge of patients from BIS. Tapes were transcribed verbatim. Method of analysis: Framework analysis. **Results**: All referrers agreed to be interviewed. Referrals to BIS came from both primary and secondary care. Referral reasons included: patient anxiety, difficulty accepting diagnosis, non-compliance with unrealistic hopes of treatment, low morale and poor function. Referrers talked about the importance of this situation to their patients as opposed to reduced symptom severity. Referrers' perspectives on the outcomes of using BIS were very positive in all but one case (patient reported no change). Referrers valued: prompt access to a specialist physiotherapist within a multidisciplinary team (MDT) approach, location of care in the home, time given, attention given to a chronic condition, and educational role (for patients, carers and themselves). Views on future development included: increasing BIS’s profile, enhancing education role, referrer opportunities for shadowing, MDT meetings with referrers for case management, increasing BIS’s capacity, clearer communication of discharge from BIS to the patient, and facilitation of early referral. **Conclusions**: BIS is highly valued by referrers and appears to be meeting the needs of complex patients with intractable breathlessness due to COPD. Future analysis will examine patient and carer views of the service and future studies will assess BIS’s role with other disease groups (e.g. cancer).

**Poster N°**: 199

**Type of presentation**: Poster  
**Poster session**: First Group 29 May Thursday, 10.30 to 30 May Friday 13.00  
**Category**: Dyspnoea & breathelessness  
**Title**: Management of malignant pleural effusions in palliative care.  
**Authors**:  
Richard Latten Liverpool Hospice Marie Curie Cancer Care UNITED KINGDOM  
Helen Bonwick Marie Curie Hospice Liverpool UNITED KINGDOM  
Caroline Irvine Hospice of the Good Shepherd Chester UNITED KINGDOM  
Martin Ledson Cardiothoracic Centre Liverpool UNITED KINGDOM  
Kate Lock Cardiothoracic Centre Liverpool UNITED KINGDOM

**Background**: Malignant pleural effusions (MPE) occur frequently in advanced cancer and may contribute to dyspnoea. Drainage of MPE has potential to improve symptom control; however procedures are invasive and mostly performed in hospital. Little evidence exists regarding drainage of MPE in hospices. **Methods**: Aim: To examine the management of MPE from advanced cancer in hospital & hospice palliative care settings and review palliative care guidelines. A survey of regional hospice & hospital palliative care teams was performed to establish MPE management in individual units. Retrospective analysis was then performed in 2 units (hospital & hospice) performing drainage of MPE. Episodic episodes were identified by palliative care teams at each location and by computer coding. Case-notes were analysed for details of primary cancer, investigations performed, therapeutic management and symptoms pre and post procedure. **Results**: 10 sites responded to the survey (response rate=66%). Hospital teams referred to on-site respiratory teams for management. 4 hospices reported performing therapeutic procedures on site. Retrospective analysis identified 32 patients (21 hospital & 11 hospice) giving 65 separate episodes of MPE management. The commonest primary site was lung. All patients had radiological confirmation of MPE prior to the 1st procedure. For subsequent procedures, some hospice MPE were identified by clinical means only. Interventions included aspiration & intercostal tube drainage. Only aspiration was performed in hospice. Symptoms of dyspnoea, cough & pain were reported. Dyspnoea & cough improved post procedure; pain did not. Improvement in dyspnoea was similar in hospice (57%) & hospital cases (54%) **Conclusions**: Procedures for MPE drainage can aid symptom control. Simple interventions may be considered in hospices, depending on individual unit resources and development of appropriate management policy. An algorithm for management of MPE in palliative care has been developed for inclusion into regional palliative care guidelines.

**Poster N°**: 200

**Type of presentation**: Poster  
**Poster session**: First Group 29 May Thursday, 10.30 to 30 May Friday 13.00  
**Category**: Dyspnoea & breathelessness  
**Title**: Assessment of Lung Cancer related symptoms and treatment related side effects in a group of patients with advanced Lung Cancer receiving Palliative Chemotherapy.  
**Presenting author**: Dympna Waldron  
**Authors**:  
Eileen Mannon Palliative Medicine University Hospital Galway IRELAND  
J.J. Gilmartin Department of Respiratory Medicine, Galway University Hospitals, Galway IRELAND  
Dymphna Waldron Department of Palliative Medicine, University Hospital Galway, Galway IRELAND

**Background**: In patients with advanced Lung cancer the objective of disease modifying treatment is symptom palliation and improvement in quality of life with a minimum of treatment toxicity. The EORTC Lung Cancer Module (LC-13) has been developed for use in patients with lung cancer receiving treatment with chemotherapy and/or radiotherapy. The LC-13 includes questions assessing lung cancer associated symptoms (cough, dyspnoea, haemoptysis, chest pain), treatment related side effects (sore mouth, dysphagia, peripheral neuropathy, alopecia) and need for pain medication. In this study population we assessed disease related symptoms and treatment side effects at time of first dose chemotherapy and again following three months of a Taxotere/Carboplatin chemotherapy regime. **Methods**: 33 patients with advanced Lung Cancer receiving palliative chemotherapy were assessed at time of first dose of chemotherapy (T1) and again at three months (T3) using the EORTC-QLQ and Lung Cancer Module (LC-13). **Results**: At T1 the highest symptom scores were for cough (mean score 41.4), dyspnoea (mean score 27.7) and chest pain (mean score 11.11). At T1 39.9% of patients were taking medication for pain. At T3 the highest scores were for alopecia (mean score 82.22) and parasthesiae (mean score 26.66). Mean symptom scores had decreased for cough (mean score 17.7), dyspnoea (mean score 19.25) and chest pain (mean score 2.22). At T3 26.6% of patients were taking pain medication. **Conclusions**: These results indicate an improvement in disease related symptoms with a concomitant increase in chemotherapy related side effects after three months of palliative chemotherapy.

**Poster N°**: 201

**Type of presentation**: Poster  
**Poster session**: First Group 29 May Thursday, 10.30 to 30 May Friday 13.00  
**Category**: Dyspnoea & breathelessness  
**Title**: Dyspnoea: a life-shortening symptom?  
**Authors**:  
Cuervo Pinna Equipo de Cuidados Paliativos de Badajoz Servicio Extremo de Salud SPAIN  
Mota Vargas Sergio Equipo de Cuidados Paliativos de Badajoz Servicio Extremo de Salud SPAIN
Subjective measures of breathlessness as primary and adverse effects as secondary outcomes. The quality of study was assessed (Jadad-Scale, Methods score). Results: The search yielded five studies (3 RCTs, 2 CTs) which met the inclusion criteria, one trial is currently recruiting patients. A total of 153 patients (range 4–101) were included in the studies. Four trials were conducted in COPD patients, one study included only patients with advanced cancer. Investigated drugs were diazepam (3x), alprazolam (1x) and midazolam (1x). All studies used placebo as a control. The results were inconsistent: three studies showed a positive effect of benzodiazepines for the relief of breathlessness whereas two studies did not. One of these two studies shows neither positive nor negative effect, but the other study state a contraindication of diazepam for breathlessness in COPD because of intolerable drowsiness. This effect might be caused through the high doses of diazepam (25mg daily) which were used. Conclusions: Based on the current literature there is not enough evidence for the use of benzodiazepines for the relief of breathlessness.

Poster N°: 203

Type of presentation: Poster
Poster session: First Group 29 May Thursday, 10.30 to 30 May Friday 13.00
Category: Dyspnoea & breathelessness
Title: The Pathophysiology of Dyspnoea in End-stage Chronic Heart Failure (CHF) – Implications for Symptom Management
Authors:
Steffen Simon Internal Medicine Department of Palliative Care, King’s College GERMANY
Claudia Bausewein Department of Palliative Care, King’s College London London UNITED KINGDOM

Background: Chronic heart failure (CHF) is one of the most common and deadly cardiovascular disorders and is the end stage of many heart diseases. Dyspnoea is the most common and troublesome symptom in CHF with 60–88% of patients suffering from it in the last six months of life. Understanding the pathophysiology is important for the management of this symptom. Methods: Objective: The aim of this review is to demonstrate the pathophysiological mechanisms in symptom management. Methods: Review of the literature (Medline search and relevant textbooks) and presentation of the current research and knowledge about CHF and dyspnoea. Results: CHF is a multisystemic, progressive and often fatal disease. The stimulation and overdrive of the neurohumeral (sympathetic nervous system, renin-angiotensin-aldosteron-system) and immunological system (cytokines) are the main pathophysiological causes of ‘remodelling’ and the vicious circle of functional deterioration of the heart and other organs. Muscle myopathy, augmented peripheral chemoreflex, vascular remodelling with abnormalities in gas exchange and other mechanisms are the reasons for the resulting dyspnoea and fatigue. Three relevant models are illustrated for explanation: the corollary discharge, the effrent-refractory dissociation, and the reaction of mechanoo- and chemoreceptors. Pharmacological and non-pharmacological strategies in symptom management of dyspnoea and fatigue in relation to the pathophysiology are presented, e.g. opioids (modulating the sensitivity of chemoreceptors), rehabilitation and exercise programmes (muscle myopathy and mechanoreceptors). Conclusions: The pathophysiology of chronic heart failure and related dyspnoea is a multisystemic reaction of the organism. The approach to treatment and care of patients with end-stage chronic heart failure should be multidimensional, to meet the needs for these patients at the end of their life.
Poster N°: 205

Type of presentation: Poster
Poster session: First Group 29 May Thursday, 10.30 to 30 May Friday 13.00
Category: End of life care & quality of death
Title: Care Setting Transitions at the end-of-Life in the Netherlands: a nationwide study
Authors:
Ebun Abarshi Department of Public and Occupational Health VU university medical centre NETHERLANDS
Bregie Onwuteaka-Philipsen Vrije University Medical Center Amsterdam NETHERLANDS
Lieve Block van den Vrije Universiteit Brussels BELGIUM
Michael Echteld Vrije University Medical Center Amsterdam NETHERLANDS
Luc DeLiens Vrije University Medical Center Amsterdam NETHERLANDS
Ge Donker The Netherlands Institute for Health Research Amsterdam NETHERLANDS

Background: Multiple care setting transitions could have a negative impact on dying patients, thereby suggesting a low quality of end-of-life care. This study aims to determine the characteristics of care setting transitions (prevalence and patterns) in the last 3 months of life in the Netherlands and to identify potential patient predictors of multiple transitions and their carers.

Methods: Standardised registration forms were sent to all General Practitioners (GPs) within the Dutch Sentinel Network, a representative health surveillance network covering approximately 1% of the population. The GPs registered retrospectively all non-sudden deaths (a mortality follow-back study); of patients aged a year and above occurring between January 2005 and December 2006. A care setting transition was defined as a change in the location of a patient’s care. Results: A total of 718 transitions were made by the 690 non-sudden deaths registered. Two-thirds of these had their place of care changed at least once in the last four weeks of life. Over 80% of the ‘hospital’ deaths consisted of patients who were at ‘home’ 7 days prior to death. The patient’s age, primary cause of death and personal wishes were related to fewer care setting transitions. Conclusions: Although some care setting transition are required, others could be avoided. It is advisable to anticipate and implement ‘needed’ transitions in a more coordinated manner.

Poster N°: 206

Type of presentation: Poster
Poster session: First Group 29 May Thursday, 10.30 to 30 May Friday 13.00
Category: End of life care & quality of death
Title: Aminoff Suffering Syndrome a New Pathological Entity in End-Stage Dementia
Authors:
Bechor Zvi Aminoff Geriatric Division Sheba Medical Center, Tel-Hashomer ISRAEL

Background: Patient suffering is a pathological syndrome traditionally viewed as a state encompassing psychological distress, spiritual concerns and various aspects of physical pain. There is insufficient clinical evidence for suffering in dying dementia patients and key criterions of irreversible medical condition, which may lead to inappropriate evaluation and insufficient palliative treatment. To evaluate the suffering of terminal dementia patients (MMSE=0/30, FIM=18/126) over time, from admission to a geriatric ward and on during six months follow up. Methods: A prospective study of consecutive end-stage dementia patients, admitted to a general geriatric department of a tertiary hospital. Patients were evaluated weekly by the Mini Suffering State Examination scale (MSSE) which developed by us. Results: Two hundreds patients have been studied. During six months follow up survived 88 (44%) and died 112 (56%) of end stage dementia (ESD) patients whom admitted to geriatric department. The MSSE scale score of six months survived ESD patients was low with MSSE=3.41±2.73. In contrary, the MSSE scale score of dead ESD patients was high with MSSE=4.97±2.46 at day of admission to geriatric department and increased until last day of life until MSSE=5.93±2.39, with significant difference P<0.0001. Conclusions: Aminoff Suffering syndrome could be key criterion for enrolling ESD patients for palliative treatment and new alternative setting approaches as Suffering Relief Units should be developed for end stage and dying dementia patients being in Aminoff Suffering syndrome.

Poster N°: 207

Type of presentation: Poster
Poster session: First Group 29 May Thursday, 10.30 to 30 May Friday 13.00
Category: End of life care & quality of death
Title: The New Israeli Law
Authors:
Bechor Zvi Aminoff Geriatric Division Sheba Medical Center, Tel-Hashomer ISRAEL

Background: The new Israeli Law “The Dying Patient” provides avenues for possible medical, ethical and Halachic (Jewish religious law) solutions in view of the complexity of the treatment of an end-stage dementia (ESD) patient. The establishment of a hospice-like setting for dementia patients in Israel, based on palliative treatment only, similar to the Jewish hospices in the United States of America, is extremely important. This paper proposes a new, alternative approach and setting for patients with ESD that could pertain to the Israeli setting and could possibly also be acceptable in other countries. Methods: Key points: 1. Screening the suffering level of dying patients by means of the Mini Suffering State Examination (MSSE) scale
developed by us for revealing which patients have a high level of suffering (MSSE = 7–10) 2 Patients with a high level of suffering (MSSE = 7–10) should be hospitalized in “Relief of Suffering Units” 3. Period of hospitalization in such a unit is estimated to be 1 month 4. Patients whose suffering level diminishes during hospitalization in these units could be discharged 5. The desirable approach to dying patients in “Relief of Suffering Units” will be to seek solutions for diminishing the high suffering level of the patients

**Results:** Treatment in the Relief of Suffering Units would be in accordance with the principles determined in the New Israel Law. These units would be the source for integral medical, nursing, religious, ethical, psychological and sociological research, seeking methods to cope with the horrendous burden of suffering of dying patients, their families and the nursing staff.

**Conclusions:** Our proposal was published in book – Measurement of Suffering in end-stage Alzheimer’s Disease, Dyonon, Tel-Aviv, 2007.

**Poster N°: 209**

**Type of presentation:** Poster

**Poster session:** First Group 29 May Thursday, 13.00

**Category:** End of life care & quality of death

**Title:** Experience of the Moment of Death in Hospital.

**Authors:**

Jodie Battley Palliative Medicine Milford Hospice IRELAND

Sinead Donnelly Milford Hospice Limerick IRELAND

The moment of death is a highly significant event which has become increasingly marginalised. Although the majority of deaths occur in acute hospitals, literature suggests that dying in hospital is largely a negative experience.

**Methods:** This is a qualitative enquiry conducted over six months into the experience of the moment of death in a tertiary referral hospital in the Mid West of Ireland. Relatives of patients who died in the palliative care service were recruited. Fifteen semi-structured interviews of relatives present at the time of death were conducted within two weeks of death in order to best capture recall. The interviews were transcribed and then analysed by both researchers and an independent analyst experienced in qualitative methods in order to identify the underlying themes and avoid potential investigator bias. Bereavement counselling was offered to all participants.

**Results:** Included in the emerging themes is the impact of the patients’ location within the hospital. Contrary to popular belief, families had varying opinions about a ward or a private room just as some preferred in-patient palliative care settings. The descriptions of death as an intimate event in a busy hospital environment, the importance of personal communication, the availability of staff as a source of compassion and validation. Families who take up residence at the moment of death on a ward are consoled by regular communication with staff and are distressed when it is inadequate to their needs. Sub-themes such as the value of the mobile phone, the impact of interactions with other patients and the presence of humour are also apparent.

**Conclusions:** The descriptions of death in a tertiary hospital are as rich and intimate as those found in the home and inpatient palliative care settings. As the moment of death approaches the surroundings become less important and paramount are the humanity and compassion of the professional staff.

**Poster N°: 210**

**Type of presentation:** Poster

**Poster session:** First Group 29 May Thursday, 13.00

**Category:** End of life care & quality of death

**Title:** Titling the tandem: Sedation at the End of Life

**Authors:**

Declan Cawley Inpatient Unit St Ann’s Hospice UNITED KINGDOM

Jan Colling St Ann’s Hospice Cheadle UNITED KINGDOM

Dave Waterman St Ann’s Hospice Cheadle UNITED KINGDOM

Alison CubittChristie Hospital Foundation NHS Trust Manchester UNITED KINGDOM

**Background:** Sedation towards the End of Life (EOL) is common and varies depending on the healthcare setting. Current literature suggests a modest increase in its use towards the EOL but is not associated with a decrease in survival. Sedation acts as an indicator for impending rather than the cause of premature death. EOL initiatives have seen the advent of anticipatory prescribing along with advance care planning. The aim was to establish whether sedation at the end of life is used in accordance with current hospice algorithms developed as a consequence of the use of the Liverpool Care Pathway (LCP). **Methods:** Retrospective case note review of deceased hospice inpatients within a 2 month period and a survey of medical staff.

**Results:** Excluding deaths of patients that were sudden or unexpected, 78% (40/51) of dying patients were commenced on the LCP with 22% (11/51) having no documentary explanation of why not. Only 88% of patients on the LCP had any initial documentary assessment for agitation with 92% (40/43) of patients who died not having had any initial documentary assessment for agitation with 92% (40/43) of patients who died not having had any initial documentary assessment for agitation. Surprisingly those patients that died not on the LCP, a higher proportion 87% met the prescribing algorithm for agitation. When trying to match variances observed for agitation with medication given, 13% (10/78) had sedation given but comments that pain was observed, not documented as a variance and no analgesia given. All (4/4) medical staff knew about the algorithms for sedation, 75% (3/4) where they were kept but only 50% (2/4) said they use them.

**Conclusions:** The findings in conjunction with the hospices’ clinical governance framework devised an action plan addressing LCP education, the importance of documentation of observations, prescribing in conjunction with algorithms and widening the debate about interpreting algorithms. It highlighted the need
for documentary explanation if variances are observed while outlining the reasons if deviation occurs.

**Poster N°: 211**

**Type of presentation:** Poster  
**Poster session:** First Group 29 May Thursday, 10.30 to 30 May Friday 13.00  
**Category:** End of life care & quality of death  
**Title:** Royal Marsden Hospital2Home Pilot Programme  
**Presenting author:** Julia Riley  
**Authors:**  
Nigel Dodds Palliative Care Royal Marsden NHS Foundation Trust UNITED KINGDOM  
Maria Owens Royal Marsden NHS Foundation Trust London UNITED KINGDOM  
Deirdre Adams Royal Marsden NHS Foundation Trust London UNITED KINGDOM  
Julia Riley Royal Marsden NHS Foundation Trust London UNITED KINGDOM  

**Background:** In England, patients’ actual place of death infrequently corresponds with their preferred place of death. The Royal Marsden Hospital2Home (H2H) Programme was established to improve the numbers of patients dying in their preferred place.  

**Aims and methods:** The aims of the pilot are to: “allow more patients to die in their preferred place; “ give patients more choice by planning ahead; “ reduce the number of unnecessary acute admissions; “ improve quality of life. This is a prospective trial, to consider the effectiveness of a palliative care intervention initiated by a cancer centre. The H2H team arrange case conferences in patients’ homes, attended by carers and primary care professionals. Roles and responsibilities are agreed and documented. Documentation forms part of the hospital electronic patient record and is communicated to the primary care team. This study is using a multi-method approach, in gathering and analysing data.  

**Results:** 1) Audit data looking at stat admissions for patients no longer receiving active oncological care (n=75) over a 42 day period, demonstrates a decrease in admissions for pain control from 19% in 2004 to 14% (n=11) in 2008; and a decrease in the hospital death rate for this group from 17.4% in 2004 to 4% (n=3) in 2008. 2) An education programme has been initiated across all health care sectors to support the pilot. 3) Early data and feedback demonstrates that the H2H Programme enables communication between health care providers and improves the coordination of care in the patient’s home.  

**Conclusions:** The Royal Marsden H2H Program has developed a model for end-of-life care offering i) a personalized care plan where patients are given opportunities to discuss their preferences with skilled health professionals ii) locally-tailored information and co-ordination of services with clearly identified roles and responsibilities of professionals, ultimately increasing the number of patients dying in their preferred place.

**Poster N°: 212**

**Type of presentation:** Poster  
**Poster session:** First Group 29 May Thursday, 10.30 to 30 May Friday 13.00  
**Category:** End of life care & quality of death  
**Title:** Symptoms in patients dying at home: senti-melic interview study  
**Authors:**  
Katrien Drieskens End-of-life Care Research Group (MESO) Vrije Universiteit Brussel BELGIUM  
Sabien Bauwens Centre for Oncology, Academic Hospital, Vrije Universiteit Brussel BELGIUM  
Luc Deliens End-of-Life Care Research Group, Vrije Universiteit Brussel Brussels BELGIUM  
Johan Bilsen End-of-Life Care Research Group, Vrije Universiteit Brussel Brussels BELGIUM  
Lieve Van den Block End-of-Life Care Research Group, Vrije Universiteit Brussel Brussels BELGIUM  

**Background:** Taking care of a patient in terminal stage of cancer requires thorough analysis of not only the disease itself but also the influence of people from the patient’s closest circle. Socio-psychological conditions of the disease as well as its physical aspect have direct and ceaseless influence on each other. Physical pain connected with cancer and medical treatment of the disease, not accepting it by the patient and his inability to resign to incurability of the disease, result in disturbed communication with people in the patient's closest circle, which, in turn, make the patient’s suffering even greater. Socio-psychological factors, both having positive and negative influence on patient’s condition and his reactions always should be taken into consideration in taking care of the patient. Only such comprehensive
approach gives the patient and people in his closest circle a chance of accept-
ing the disease and being able to overcome new problems. Methods: There were 30 patients of St. Albert’s Hospice in Dabrowa Tarnowska involved in the study. Health related quality of life was estimated with Rotterdam Symptom Checklist (RSC). Depression probability, anxiety and fear were measured with Zung Self-rating Depression Scale, Hospital Anxiety and Depression Scale (HADS)and Support Team Assessment Schedule (STAS) respectively. Results: In the physical and psychical symptoms control there were 60% and 37% of high results responding very poor control, respective-
ly. According Zung Self-rating Depression Scale 47% of patients would develop symptomatic depression with high probability. Strong fear and anxi-
ety were present at 33% and 47% of patients, respectively. Conclusions: There is an obvious necessity to understand supportive care in terminal stage of cancer or other incurable diseases as a complex and multivariate process. We still lack of palliative care units and well practiced personnel to provide suitable care however the progress is unavoidable and necessary.

Poster N°: 214

Type of presentation: Poster
Poster session: First Group 29 May Thursday, 10.30 to 30 May Friday 13.00
Category: End of life care & quality of death
Title: Advance Care Planning in Care Homes for Older People: Managers’ Perspectives on Consultation and Challenges
Authors:
Katherine Froggatt International Observatory on End of Life Care Lancaster University UNITED KINGDOM
Caroline Bernard Counsel & Care London UNITED KINGDOM
Suzanne Vaughan Lancaster University Lancaster UNITED KINGDOM
Deidre Wild University of the West of England Bristol UNITED KINGDOM

Background: Advance Care Planning (ACP) has been promoted in England as part of the End of Life Care Programme. It is proposed that ACP enables care staff to deliver a high standard of end of life care in line with a resi-
dent’s wishes, however little is known about current practices in care homes for older people. This study aimed to: – Ascertain care home managers’ views about consultation on end of life issues – Identify challenges faced by staff undertaking ACP

Methods: A postal survey of managers of 500 care homes in two regions in England was undertaken. This addressed managers’ views about consultation for care including end of life care, the use of ACP tools and the challenges faced by staff in this sector. A response rate of 43% (n=213) was obtained. Results: The majority of managers indicated that consultation with residents about specific and general end of life issues was “very important” across a range of issues, including resuscitation wishes (81% managers) and hospital admissions (87%). Managers report varying levels of confidence in addressing end of life issues with residents, relatives and staff, but indicate being most confident consulting with relatives. Managers report lower levels of confidence regarding their knowledge of end of life issues and supporting staff to undertake discussions. Managers reported a range of barriers to consultation with residents about end of life wishes, relating to staff knowledge and skills, communication challenges and family dynamics. Conclusions: Whilst care home managers indicate consultation about end of life issues with residents to be an important prior-
ity, a number of challenges exist in consulting with residents that may explain a greater involvement with family than residents in this process.

Poster N°: 216

Type of presentation: Poster
Poster session: First Group 29 May Thursday, 10.30 to 30 May Friday 13.00
Category: End of life care & quality of death
Title: What is the latest evidence on preferences for place of care and place of death?
Authors:
Barbara Gomes Palliative Care, Policy & Rehabilitation Cicely Saunders International/ King’s College Londo UNITED KINGDOM
Marjolein Gysels Cicely Saunders International/King’s College London London UNITED KINGDOM
Irene J Higginson Cicely Saunders International/King’s College London London UNITED KINGDOM

Background: Evidence prior to 2000* showed that well over 50% of patients prefer to be cared for and die at home. Since then, many more studies have been conducted but are not yet systematically reviewed. We aimed to systematically review and appraise studies examining people’s preferences for place of care in terminal illness and place of death, comparing the evidence prior and after 2000. Methods: Literature searches were conduct-
ed in January 2007; sources included databases (MEDLINE, EMBASE, psycINFO, CINAHL), handsearches and tracking of reference lists. Qualitative and quantitative studies were assessed using different quality scales. Progression of research over time, mapping of studies in the world, and the consistency of findings on the prevalence of a home preference (% respondents expressing a preference for home care/death) were described visually. Prevalences in individual studies were plotted by population group (general public, patients, carers). Results: The review included 135 studies,
103 quantitative, 19 qualitative and 13 mixed methods studies. From 2000 to 2007 there were 82 new studies. Research came from 26 countries and over one third presented evidence from Europe (12 countries: UK, Spain, Italy, Ireland, France, Sweden, Norway, Netherlands, Israel, Germany, Turkey and Portugal). Overall, home preferences ranged 5–100% (n=91 studies); in the majority (n=70 studies) >50% of the respondents preferred home care/death. Plots of prevalences of a home preference showed greater heterogeneity amongst patients and carers than general public. **Conclusions:** Despite limitations, international research on preferences has improved – latest findings must inform policy and practice. A preference for home care/death appears to still be the most prevalent, although with wide variation. Differences between general public and patients/carers views suggest some tension between ideal and realistic preferences. There appears to be less consensus in face of reality. Grant from Cicely Saunders International.

**Poster No.: 217**

**Type of presentation:** Poster  
**Poster session:** First Group 29 May Thursday, 10.30 to 30 May Friday 13.00  
**Category:** End of life care & quality of death  
**Title:** Quality of primary palliative care: experiences of patients and their informal care providers  
**Authors:**  
Marieke Groot Kenniscentrum Palliatieve zorg (bedrijfseenheid PPP) UMC St Radboud NETHERLANDS  
Ben Cruyl UMC St Radboud Nijmegen NETHERLANDS  
Myrtra Vernooy-Dassen UMC St Radboud Nijmegen NETHERLANDS  
Stans Verhagen UMC St Radboud Nijmegen NETHERLANDS  
Richard Grol UMC St Radboud Nijmegen NETHERLANDS  
Kristel Janssen UMCU Utrecht NETHERLANDS

**Background:** Objective: To describe the quality of primary palliative care from the perspective of the patient and the patient’s informal care provider.  
**Methods:** Design: Observational study  
Setting: Primary palliative care  
Participants: 32 patients and 27 informal care providers selected by 34 general practitioners (GPs)  
Main Outcome Measure(s): The Quality of Palliative Care – Questionnaire (QPC – Q); 16 items to be scored on a 5-point rating scale.  
**Results:** Both patients and informal care providers were positive about their experiences with the concrete aspects of care. Both groups rated the GP at the highest rank; the patient can always appeal to the GP. Both groups criticized the delay in acquiring care or material/equipment for care owing to the rules and procedures of organisations. In general, the opinions of the informal care providers were more critical.  
**Conclusions:** Patients in primary palliative care and their informal care providers are of the opinion that the level of palliative care in primary practice is fairly good. Despite this overall positive judgment, both critical comments and positive findings are important input for the planning of improvements. Much can be done to support informal care providers in their difficult and often exhausting task. Professional energy must also be invested in the clarification of the differences in the judgements of the patients and the informal care providers. Such clarification may lead to a more stable basis for patients to end their lives at home and for relatives to care for them without feeling completely overburdened.

**Poster No.: 218**

**Type of presentation:** Poster  
**Poster session:** First Group 29 May Thursday, 10.30 to 30 May Friday 13.00  
**Category:** End of life care & quality of death  
**Title:** Continuous deep sedation: Varying practices among Dutch physicians  
**Authors:**  
Jeroen Hasselaar Palliatieve Care Radboud University Nijmegen Hospital NETHERLANDS  
Maria E.T.C. van den Muijsenbergh Radboud University Nijmegen Hospital Nijmegen NETHERLANDS

**Background:** This article examines delicate issues in continuous deep sedation (CDS) from the perspectives of different types of physicians. The following sensitive issues involved in CDS were investigated: 1) the relation between CDS and euthanasia; 2) artificial hydration; 3) sedation for non-physical suffering; and 4) patient involvement in decision-making for CDS.  
**Methods:** A structured retrospective questionnaire concerning the last case of CDS in the past 12 months was administered to a sample of medical specialists (n=727), general practitioners (n=626), and nursing home physicians (n=111).  
**Results:** Response rates were 27% for medical specialists, 37% for general practitioners, and 59% for nursing home physicians. Indications for CDS significantly differed between types of physicians. General practitioners were confronted with a patient request for euthanasia prior to CDS the most (25%) compared to medical specialists (9%) and nursing home physicians (7%). A decision to forgo artificial hydration was made most by nursing home physicians (91%) relative to general practitioners (51%) and medical specialists (54%). Remarkably, a shorter survival was found for patients sedated for non-physical suffering (vs. other patients) by general practitioners Of all patients, 74% were involved in decision-making prior to CDS.  
**Conclusions:** The present study demonstrates significant differences in CDS practice between types of physicians. To what extent this is exactly related to different patient populations or rather different expertise needs further investigation. Continuous deep sedation for non-physical suffering calls for critical examination, in order to avoid ambiguous practice.
Posters:

**Posters: 220**

**Type of presentation:** Poster  
**Poster session:** First Group 29 May Thursday, 10.30 to 30 May Friday 13.00  
**Category:** End of life care & quality of death  
**Title:** Dying in a metropolitan region in Flanders (Belgium), the Netherlands and England  
**Presenting author:** Joachim Cohen  
**Authors:** Dirk Houttekier End-of-Life Care Research Group Vrije Universiteit Brussel BELGIUM  
Johan Bilsen End-of-Life Care Research Group, Vrije Universiteit Brussel BELGIUM  
Luc Delsens End-of-Life Care Research Group, Vrije Universiteit Brussel BELGIUM  
Joachim Cohen End-of-Life Care Research Group, Vrije Universiteit Brussels BELGIUM  
B. Omwetakea-Philippsen 4 Department of Public and Occupational Health, EMGO Institute, VU University Medical Centre Amsterdam NETHERLANDS  

**Background:** The urbanisation in Europe, the social fragmentation of Europe's metropolitan populations, the poor social conditions in parts of the inner-cities, and the concentration of inpatient care make the place of death vs. hospital death and care home death vs. hospital death, adjusted for clinical, social-demographic, residential and local health care system factors. **Results:** In Brussels, 17.2% were home deaths; 56.7% hospital deaths and 25.4% care home deaths. Home death was less likely for people suffering from hematologic malignancies and acute lower respiratory infections, who are older and living in low SES districts, and for single cancer patients. Care home residents suffering from diseases of the nervous system or heart diseases were more likely to die in the care home if they were at an advanced age, married and lived in a district with high SES and higher availability of skilled nursing facility beds. Cancer patients living in Antwerp or Brussels were more likely to die in a hospital, compared to the rest of Flanders. **Conclusions:** In Brussels, the cause of death is most predictive for the place of death. However, people living in a prosperous community, married or living in a household, are more likely to die in their familiar surroundings. Availability of skilled nursing facilities seems to decrease the likelihood of care home residents being transferred to a hospital at the end of life. End-of-life care quality in metropolitan regions requires more attention, in particular in backward districts.

**Poster N°: 221**

**Type of presentation:** Poster  
**Poster session:** First Group 29 May Thursday, 10.30 to 30 May Friday 13.00  
**Category:** End of life care & quality of death  
**Title:** What progress has been made in formalising the delivery of supportive and palliative care for adults with cancer by General Practices in the UK?  
**Presenting author:** Bill Noble  
**Authors:** Philippa Hughes Academic Unit of Supportive Care University of Sheffield UNITED KINGDOM  
Kevin Bolster Macmillan GP Adviser for North Trent Cancer Network Rotherham UNITED KINGDOM  
Peter Bath CHIMR, Department of Information Studies, University of Sheffield Sheffield UNITED KINGDOM  
Bill Noble Academic Unit of Supportive Care, University of Sheffield Sheffield UNITED KINGDOM  
Nisar Ahmed Academic Unit of Supportive Care, University of Sheffield Sheffield UNITED KINGDOM  

**Background:** General Practices are pivotal in the provision of palliative care in primary care in the UK, where initiatives such as the Gold Standards Framework have been developed in recent years. A key recommendation of the National Institute for Health and Clinical Excellence (NICE) and the Scottish Partnership for Palliative Care is for appropriate mechanisms for care delivery. **Aim:** To assess the implementation of UK national guidance, and relate it to participation in previous initiatives. **Study Population:** One third of all UK General Practices were selected randomly. **Design and Methods:** Self-complete postal questionnaires including sections on practice organisation, clinical practice, and quality were sent out to general practitioners. Descriptive statistics were prepared. **Findings:** 2096 questionnaires were returned (60.0% response rate). Reported involvement with the Gold Standards Framework was 61.5% (n=1288). Other reported behaviours included: the use of Significant Event Analysis (86.4%; n=1810); available anticipatory medication (82.4%; n=1727); systems for co-ordination of care (81.0%; n=1697); regular meetings, (67.9%; n=1424); fully operational registers (65.3%; n=1369); formal protocols for care of the dying (38.8%; n=814) and always recording preferred place of care (24.9%; n=522). For the 669 respondents (31.9%) who estimated the percentage of cancer deaths taking place at home, the median reported percentage was 50 (mean=48.9). For the 232 respondents (11.1%) who reported this from practice records, the median percentage of cancer deaths taking place at home was 43 (mean=48.9). **Conclusions:** These practices report a higher percentage of cancer patients dying at home than the national average. Respondents may include highly performing practices with an interest in palliative care. Further analyses will identify predictors of compliance with the NICE guidance and will elucidate relationships with cancer deaths at home.
Poster N°: 223

Type of presentation: Poster
Poster session: First Group 29 May Thursday, 10.30 to 30 May Friday 13.00
Category: End of life care & quality of death
Title: Collaborative research with patients experiencing end of life care
Authors:
Bridget Johnston Cancer Care Research Centre University of Stirling UNITED KINGDOM
Nora Kearney University of Stirling Stirling UNITED KINGDOM

Patient centred care is fundamental to the work of palliative care clinicians. However, despite this, there is a paucity of palliative care research that is patient focused and explores patients’ experiences, particularly in relation to collaborative, patient involvement research. Aims: To understand patient and carer experiences of end of life care and to utilise this experience to enhance the delivery of palliative care services. Methods: A participatory action research model was used, allowing collaboration and participation of people affected by advanced cancer. The study was a 2 year post-doctoral, 3 phase study, with multiple methods of data collection. The study was conducted in Scotland including rural, remote, and socially deprived areas. For the patient experience phase – reported here – data were collected from 20 patients as well as their main carer and the health professional who they perceived had given them the most support – via longitudinal, usually two, unstructured in depth interviews. Data were analysed using both within case and between case in-depth thematically. Key Findings: A total of 70 interviews were conducted. Maintaining normality and the support of family members were the two most important areas as far as their self care was concerned for the patients in the study. Patients appreciated support from family members and health professionals, particularly when this enabled them to maintain their independence and manage at home. Information was important to many people although they wanted this in a variety of ways and it differed at various stages of their illness trajectory. An intervention to deliver out of hours support and advice is to be developed to improve services in the study areas from the findings. Conclusions: Self care is different in advanced cancer to self care issues in chronic illness. People receiving end of life care, want to, and are able to participate and collaborate in in-depth research. Self care is important to this group of people. In addition, terminology used by patients and family members to describe their end of life care is different to professionals.

Poster N°: 224

Type of presentation: Poster
Poster session: First Group 29 May Thursday, 10.30 to 30 May Friday 13.00
Category: End of life care & quality of death
Title: The NHS End of Life Care Programme: stakeholders’ views and experiences
Authors:
Sheila Kennedy Sue Ryder Care Centre Palliative & End of Life Studies University of Nottingham UNITED KINGDOM
Tony Arthur University of Nottingham Nottingham UNITED KINGDOM
Kathryn Almack University of Nottingham Nottingham UNITED KINGDOM
Jane Seymour University of Nottingham Nottingham UNITED KINGDOM
Karen Cox University of Nottingham Nottingham UNITED KINGDOM

Background: The NHS End of Life Care Programme has been central to efforts to improve end of life care in England. As part of a wider evaluation of the Programme, we sought to understand how the Programme was implemented across England, what issues were perceived by stakeholders at local, regional and national levels and what lessons could be learnt for future policy. Methods: 27 interviews and one focus group were conducted with 37 stakeholders identified as active in shaping the direction and/or implementation of the Programme. The sample included: 8 personnel employed by the Department of Health to lead the Programme; 21 managers and facilitators involved in implementing the Programme; 8 representatives of key voluntary sector bodies influential in shaping wider palliative and end of life care policy. Fieldwork was conducted from September 06-January 07. Interviews were recorded and subject to framework analysis. Results: The following factors were perceived as key to the success of the Programme: decisions delegated to regional level; leadership of the National Programme Team; clear central direction and a supportive steering group. Some criticisms were expressed, including: the relative neglect of strategic and long term workforce planning; insufficient attention to development and training; and the limited development of end of life care policies across clinical areas and networks. The recommended end of life tools (Gold Standards Framework, Liverpool Care Pathway and Preferred Place of Care) were perceived mostly in positive terms, but some argued that the development of a single, integrated care pathway may have been preferable. Concerns were expressed often about sustainability as well as about methods of monitoring the impact of the programme, in the context of broad agreement about its achievements. For many, the announcement of the End of Life Strategy represented a ‘life line’ for end of life care. Conclusions: It is hoped that the End of Life Strategy helps sustain EOLCP achievements.
evaluated. We therefore investigated attitudes towards AD in hospitalized patients with malignancies. Methods: Patients were consecutively approached in a prospective controlled study and were informed about the features of AD in a standardized manner by a single independent physician. Results: One hundred eight (39 female, 69 male; age:56.6 +/- 14.9 years) out of 140 patients who were invited, completed the study. Among these, 5% (5/108) already had an AD and 85% (92/108) did not want to make one. “Full trust in physicians” (22%) and “not important for me at the moment” (15%) were the most prevalent reasons for denying the need of AD. Only 10% (11/108) of patients decided to make an AD. Their decision was not found to be interrelated with a specific diagnosis nor with a panel of socio-demographic variables. Patients who decided for an AD were significantly more depressive than patients who decided against it (HADS-D: 8.3 +/- 5.0 vs. 5.8 +/- 4.1; p = 0.035). Their HADS depression score was negatively associated with their Karnovsky index (r = -0.232, p = 0.017). Conclusions: Our data show that demand for AD is low in our population of hospitalized cancer patients and is associated with a high depression score and a low performance status.

Poster N°: 226
Type of presentation: Poster
Poster session: First Group 29 May Thursday, 10.30 to 30 May Friday 13.00
Category: End of life care & quality of death
Title: When do we use the subcutaneous route?
Authors:
Silvia Librada Flores Regional Observatory on Palliative Care in Extremadura Regional Palliative Care Program of Extremadura SPAIN
Pilar Ruiz Márquez Palliative Care Team of Extremadura Zafra – Llerena SPAIN
Montaña Julián Caballero Palliative Care Team of Extremadura Badajoz SPAIN
María Eulalia Alonso Prado Palliative Care Team of Extremadura Don Benito – Villanueva de la Serena SPAIN
Javier Rocafort Gil Regional Palliative Care Program of Extremadura Mérida SPAIN
Laura Blanco Toro Regional Palliative Care Program of Extremadura Mérida SPAIN

Introduction: Usefulness of subcutaneous (SC) route in palliative care is a topic in palliative care (PC). Some drugs are frequently used by this route at the end of life. Could be the SC route a valid prognostic factor? A survey has been carried-out by our group (the Regional Observatory on Palliative Care in Extremadura) to measure the correlation of SC use with the survival time. Method: The route of administration of drugs for all the patients followed by the eight PC teams in Extremadura were observed during eight given days separated 45 days between them. SC use, name of the drugs delivered, location of punction, and survival time were registered for every patient. A descriptive analysis was used to estimate the rate of SC route use. A logistic regression analysis between the use of this route with the survival time (days) was made. Results: All the PC teams participated in the survey. 1,271 patients were included. 138 of them (10,9%) used SC route. 1,248 patients were followed until death and were finally included in the regression analysis (136 of them used SC route the given day when they were observed). The calculated value of R was 0.4533. Conclusions: The global prevalence of SC route use in patients followed by PC teams in Extremadura is 10.9%. Low survival time and SC route use are quite correlated. Prevalence of use is much higher on the last days of life. More surveys on survival time and use of drugs by this route are needed.

Poster N°: 227
Type of presentation: Poster
Poster session: First Group 29 May Thursday, 10.30 to 30 May Friday 13.00
Category: End of life care & quality of death
Title: Dying at the place of wish: results from the SENTI-MELC study

Authors:
Koen Meesussen Medical Sociology Vrije universiteit brussel BELGIUM
Viviane van Casteren Scientific Institute of Public Health brussels BELGIUM
Luc Deierns Vrije universiteit brussel – VU University Medical Centre Amsterdam and EMGO institute brussels BELGIUM
Nathalie Bossuyt Scientific Institute of Public Health Brussels BELGIUM
Lieve van den Block Vrije Universiteit Brussel BELGIUM
Johan Bilsen Vrije Universiteit Brussel – Ghent University Brussels BELGIUM

Background: As primary caregiver, the general practitioner (GP) can play a key role in honouring the patient’s wishes at the end of life. We investigated how well GPs are informed about the patient’s preference for place of death and the congruence between the preferred and actual place of death. In Belgium, reliable data on this subject are lacking. Methods: A one-year nationwide mortality follow-back study in 2006 in Belgium. Data were collected within the SENTI-MELC study – the study on Monitoring end-of-life Care via the nationwide Sentinel Network of GPs. All GPs reported weekly, via a standardized registration form, every deceased patient in their practice (>1 year). For all non-sudden deaths, the GPs were asked what the preferred and actual place of death was, and who had informed them. Results: The 174 GP practices registered 818 non-sudden deaths. The GP was informed about the patient’s preference for place of death, in 45,6% of the cases. If informed, the GP obtained this information directly from the patient in 62,6% of the cases. More than half (57,7%) preferred to die at home, 30,9% preferred to die in a care home, 4.7 % in a hospital and 6.6% in a palliative care unit. Overall, 80.1% of these patients died at the place of their wish: 71,8% for home deaths, 92,9% for deaths in a care home , 94,1% for hospital deaths and 83,3% for those who died in a palliative unit. Conclusions: Although communication about patients’ preferences is in important prerequisite to achieve ‘a good death’, GPs are often unaware of their patients’ preference for place of death. However, if GPs are informed, patients very often die at their place of wish. These findings emphasize the importance of timely discussion about patient’s wishes and the crucial role of the GP in the management and coordination of care at the end of life.
subjects, 30% got this information from their doctor. 85% claims that man should always know all about his health, 70% claims the same about coming death. Half of subjects (50%) deny inevitability of their death. Need to talk about their health situation with family or doctor was reported by 67,5% of subjects. 70% claimed that they could talk about their health situation with their family, 87,5% stated that one should talk about it with family. Quality of life was described as low by 85,5% of subjects, 87,5% suffers with pain which in 52,5% cases requires analgesics. In 75% of cases subjects need constant care in daily life activities and 62,5% does not accept their health and current situation. Conclusions: There is noticeable discrepancy between terminal patients knowledge about their health, and their informational needs in that area.

Poster N°: 229

Type of presentation: Poster
Poster session: First Group 29 May Thursday, 10.30 to 30 May Friday 13.00
Category: End of life care & quality of death
Title: Dignity of patients in the last phase of life: a study among physicians and volunteers
Authors: Breggie Onwuteaka-Philipsen dept of public and occupational health / EMGO VU University medical center NETHERLANDS
H Roelie W Pasman VU University medical center, dept of public and occupational health, EMGO Amsterdam NETHERLANDS
Mette L Rurup VU University medical center, dept of public and occupational health, EMGO Amsterdam NETHERLANDS

Background: Dignity is often considered a central principle in palliative care. Above that, loss of dignity is frequently mentioned as reason for patients to request for assistance in dying. However, little is known about what is considered to constitute dignity. Aim: to study what aspects are important for dignity patients perceive to have at the end of life. Methods: We studied two populations: physicians who are trained to do and have experience with doing second opinions in euthanasia procedures (SCEN-physicians; n=427; response 86%) and volunteers in palliative care who (as member) visited a congress for an organisation of volunteers in palliative terminal care. All respondents filled in a written questionnaire that consisted of a list of 22 items possibly relevant for dignity that was developed first by Chochinov in Canada. Results: ttests that SCEN-physicians and volunteers most frequently considered to be a (very) large extent important for the feeling of dignity of patients were ‘not being able to independently manage bodily functions’ (67% en 69%), ‘feeling not having control over life’ (60% en 65%), ‘not being able to think clearly’ (55% en 52%) and ‘feeling a burden to others’ (54% en 71%). SCEN-physicians mentioned ‘feeling not having control over life’, ‘not being able to mentally fight’ and ‘not being able to think clearly’ to be in practice most problematic in keeping ones dignity in the last phase of life. Conclusions: Especially issues concerning autonomy and independency are mentioned as very important to ones feeling of dignity. The judgements of SCEN-physicians and volunteers about items relevant to dignity for patients are quite similar. However, it is important to study dignity directly among patients.

Poster N°: 230

Type of presentation: Poster
Poster session: First Group 29 May Thursday, 10.30 to 30 May Friday 13.00
Category: End of life care & quality of death
Title: “Do not resuscitate” (DNR) status upon referral to a Palliative Care Team at a Comprehensive Cancer Center: patients’ characteristics and timing of DNR orders.
Authors: Henrique Parsons Palliative Care and Rehabilitation Medicine M.D. Anderson Cancer Center U. STATES
Valerie Poalier M.D. Anderson Cancer Center Houston U. STATES

Marvin Delgado-Guay M.D. Anderson Cancer Center Houston U. STATES
Ray Chacko M.D. Anderson Cancer Center Houston U. STATES
Josephine Clayton Faculty of Medicine-University of Sydney Sydney AUSTRALIA
Badi El Osta M.D. Anderson Cancer Center Houston U. STATES
Eduardo Bruera M.D. Anderson Cancer Center Houston U. STATES

Background: DNR orders were introduced in the 60’s to prevent unnecessary cardiopulmonary resuscitation (CPR). In advanced cancer patients (pts) CPR usually has limited therapeutic benefit and may cause harm and distress for pts and families. Aim: To study the influence of pts’ demographic and clinical characteristics on DNR status, the timing of DNR orders, and the involvement of PC in DNR conversion. Methods: We retrospectively reviewed 200 consecutive charts of inpatients seen by the PC team. Data were collected regarding demographical/clinical factors, DNR, CPR, and death. Results: Median age was 61 years (range 7-87). 59% were female, 64% were White, 17% African-American, and 14% Hispanics. 82% had solid tumors and 18% hematological malignancies. In 154/200 pts(77%) resuscitation was considered medically inappropriate by the PC team: 68/154(44%) had documented DNR by the primary team (PT) before the referral. No significant associations were found comparing patients with DNR conversion before and after PC referral. DNR status was obtained after PC referral in 85/86 DNR-appropriate pts (99%), in 46/54% by the PC team, in 32/38% by the PT, and in 7/8% the obtention team was unclear. 174/200 pts died, of which 145 had documented DNR. The mean(SD) time between admission and DNR was 5(9) days for 84 patients who were discharged alive and 11(13) days for 61 inpatient deaths (p=0.0001). The mean(SD) time between DNR and death was 10(17) days and 33(28) days for inpatient and outpatient deaths, respectively (p=0.0001). No other significant associations were found. Conclusions: DNR status was obtained in the vast majority of pts eligible for DNR referred to PC (99%). Only 43% of the eligible pts had DNR before PC referral. DNR orders were obtained at the very end of life, potentially creating pts and families distress. Further studies are needed to explore the effect of late DNR discussions on pts and families.

Poster N°: 231

Type of presentation: Poster
Poster session: First Group 29 May Thursday, 10.30 to 30 May Friday 13.00
Category: End of life care & quality of death
Title: Role of unbearable suffering in refused requests for euthanasia
Authors: Roelie Pasman Department of Public and Occupational Health VU university medical centre NETHERLANDS
Breggie Onwuteaka-Philipsen VU University Medical Center Amsterdam NETHERLANDS
Mette Rurup VU University Medical Center Amsterdam NETHERLANDS

Background: Aim of the study is to obtain in-depth information on how patients who request for euthanasia and their physicians define unbearable suffering, and the role of unbearable suffering in de decision of the physician whether or not to grant a request for euthanasia. Methods: In-depth interviews with patients who explicitly requested for euthanasia (or with a proxy when the patients had deceased) and, when the patient/proxy gave consent, in-depth interviews with the physician who received the request for euthanasia. In total 10 patients, 8 proxies and 12 physicians were interviewed (12 patient/proxy-physicians pairs). Results: Patients and physicians often defined unbearable suffering as physical suffering and some defined unbearable suffering as extreme pain. Others described their unbearable suffering with terms as loneliness and weariness of life. Although most physicians said in general that unbearable suffering is personal and thus subjective, some physicians compared the situation of the patient who requested for euthanasia with the situation of other patients. Furthermore, most physicians said that the patient said he/she was suffering unbearable, but that they were not convinced themselves that the suffering was unbearable. An important reason for physicians to reject a request was that they
had doubts about the unbearable harshness of the suffering. **Conclusions:** Patients and physicians seem to define unbearable suffering stricter than the authorities in the Netherlands require unbearable suffering. The definition and assessment of unbearable suffering does play an important role in rejected request for euthanasia.

**Poster N°: 232**

**Type of presentation:** Poster  
**Poster session:** First Group 29 May Thursday, 10.30 to 30 May Friday 13.00  
**Category:** End of life care & quality of death  
**Title:** Are all patients sedated during their last days of life?  
**Authors:** Sophie Pautex Rehabilitation and geriatrics Service of palliative medicine SWITZERLAND  
Francois Herrmann Dpt Rehabilitation and Geriatrics. University Hospital Geneva Geneva SWITZERLAND  
Gilbert Zalan Dpt Rehabilitation and Geriatrics. University Hospital Geneva Collonge-Bellerive SWITZERLAND  

**Background:** Optimal delivery of palliative care means impeccable assessment/treatment of pain and other physical/psychological symptoms together with identification of social and spiritual needs. To make adequate symptom assessment possible, patients must be able to communicate. However, during the last weeks or days of life, communication can be altered because of delirium or coma. The objective of the study is to characterize the last days of life and to measure the number of days during which patients can’t communicate because of delirium or impaired level of consciousness.  

**Methods:** Retrospective chart review of 141 consecutive patients who died in 2005.  

**Results:** Mean age of the 141 patients (88F, 53M) was 74 ±11.8 years. Primary sites of tumor were gastrointestinal tract (48), respiratory system (30), genitourinary (30), breast (14). Mean MMSE at admission was 20.9 ±10.1. 61 (43 %) had a diagnosis of delirium, 5 of dementia. At time of admission 17 (12%) patients were severely impaired in their consciousness and 16 (11%) could not communicate because of delirium. Median length of hospitalization was 15± 30.4 days. 18 (13%) patients died suddenly with unaltered cognition. 87 (62%) had delirium with severe communication impairment during a median of 2±5.2 days before death and were comatose during a median of 1±3.2 day. 3 (2%) received palliative sedation to relieve intolerable suffering from refractory symptoms for a total period of 5 days.  

**Conclusions:** Most dying patients are able to communicate about their symptoms and suffering despite cognitive impairment until the last 3 days of their life.

**Poster N°: 233**

**Type of presentation:** Poster  
**Poster session:** First Group 29 May Thursday, 10.30 to 30 May Friday 13.00  
**Category:** End of life care & quality of death  
**Title:** Current practice of palliative sedation at home: a survey of Dutch  

**Authors:** Roberto Perez Anesthesiology VU University Medical Center NETHERLANDS  
Annemarie Stoffer-Brink Comprehensive Cancer Center Amsterdam Amsterdam NETHERLANDS  
Wouter Zuurmond VU University Medical Center; department of Anesthesiology Amsterdam NETHERLANDS  
Luc Deliens VU University Medical Center, Research Institute for Extramural Medicine. Amsterdam NETHERLANDS  
Marianne Klinkenberg Comprehensive Cancer Center Amsterdam Amsterdam NETHERLANDS  

**Background:** Palliative sedation (PS) is an important intervention for relief of refractory symptoms at the end of life. In 2005 the Dutch Royal Medical Society established guidelines for the application of PS at home. To evaluate the current practice of PS after introduction of the guidelines, a nation wide survey was performed among nurses providing medical technical assistance (MTA-nurses) for general practitioners (GP) at home.  

**Methods:** A web based structured questionnaire was sent to 387 MTA-nurses from 49 MTA-teams in The Netherlands, investigating their experiences with and opinions on PS. Focusing on the last patient receiving PS, the survey contained questions on knowledge about the PS guidelines, the decision making process, administration of drugs for PS, the treatment policy, and the communication between health care workers, patients and their relatives.  

**Results:** 201 MTA-nurses filled out the questionnaire, 161 of which completely. 91% of respondents were aware of the existence of the PS guidelines. According to therespondents, in 89% of the cases the patient was suffering unbearably, and in 82% all available treatment options had been explored. 97% agreed with the indication for PS. The GP was not present at the start of the PS in 32%, but was available when needed in 95% of cases. The possibility of conducting PS had been discussed with the patient in 83%, and with the relatives in 79% of cases. According to 32% of the nurses, the level of sedation was not related to the required level of symptom relief, and 36% reported that changes in dosage was not based on the severity of symptoms. For 42% of nurses, the effectiveness of the sedation was insufficient. The level of sedation was measured systematically in 55% of cases.  

**Conclusions:** This survey identified points of concern in medication policy, medical control over the start and continued monitoring of PS. These issues should be addressed in future research, including views of health care workers in different settings of palliative care.

**Poster N°: 234**

**Type of presentation:** Poster  
**Poster session:** First Group 29 May Thursday, 10.30 to 30 May Friday 13.00  
**Category:** End of life care & quality of death  
**Title:** Barriers to care at home at the end of life: the role of transport.  

**Authors:** Anita Sargeant School of Health Studies, University of Bradford UNITED KINGDOM  
Sheila Payne University of Nottingham Nottingham UNITED KINGDOM  
Christine Ingleton University of Sheffield Sheffield UNITED KINGDOM  

**Background:** Enabling patients to be cared for in their preferred location often involves journeys between care settings. Facilitating transfers in a timely and safe way is a key challenge: this emerged as a theme in an evaluation of palliative care services, informing a service redesign programme in three areas of the UK by the Marie Curie Cancer Care ’Delivering Choice Programme’. The wider evaluation aimed to identify the barriers that may prevent patients with palliative care needs being cared for and dying at home.  

**Methods:** This paper focuses on one aspect of the evaluation study. We report data from service users and key stakeholders of palliative care services on problems encountered in transfers between care settings during end of life care.  

**Results:** This paper draws on data from interviews with stakeholders (n=49), patients (n= 19), carers (n=12) and bereaved carers (n=20); focus groups (n=12) with specialist nurses, questionnaires completed by General Practitioners and District Nurses (n= 467) Data were gathered in three areas of the UK. Qualitative data were analysed using a framework approach. Questionnaire data were analysed to produce descriptive statistics.  

**Conclusions:** Transport emerged as a key theme in the data and was more prevalent as an issue in two of the three areas. Four difficulties were identified: 1) the urgent nature of needs; 2)limited time to organise transfers; 2) managing specialist equipment 3) the negotiation of protocols of care such as Do Not Attempt Resuscitation orders. UK NHS ambulance services were seen as essential for transfer between care environments. Partnership working is required to develop joint protocols of care to ensure timely and safe transfers of patients near the end of life. Commissioning of provider services should be responsive to the complexities of patients’ needs at the end of life.
Poster N°: 235

Type of presentation: Poster
Poster session: First Group 29 May Thursday, 10.30 to 30 May Friday 13.00
Category: End of life care & quality of death
Title: A qualitative, two-country study of yoga in palliative care
Authors:
Lucy Selman Palliative Care, Policy and Rehabilitation King’s College London UNITED KINGDOM

Background: Yoga is an ancient Indian system of physical and spiritual practices, psychology and philosophy. A recent systematic review found that yogic techniques have beneficial effects in advanced disease. Complementary therapy is a growth area in palliative care, but evidence is lacking in this area. The study aimed to explore the provision of yoga by palliative care services in India and the UK, and compare the experiences of class participants, to inform future research and practice. Methods: Semi-structured qualitative interviews were conducted with yoga teachers, patients and carers at services in New Delhi and London. In India, trained volunteers interpreted. Interviews were transcribed and imported into NVivo v7 for thematic content analysis. Demographic data were analysed using SPSS. Results: Respondents were: in Delhi, two teachers, eight family carers and three cancer patients; in London, one teacher, one assistant and ten patients (nine with cancer, one with MND). Key themes across interviews included: yogic techniques (postures, breathwork, meditation); physical/emotional benefits (help with insomnia, breathlessness, fatigue, stress, sadness); challenges (time, physical capabilities, other priorities); the union/separation of yoga from spiritual beliefs. Indian respondents reported more barriers to yoga practice, but were more likely to practice daily. UK respondents were less likely to see yoga as a spiritual practice and more likely to emphasise social benefits. Conclusions: Yoga may benefit patients with progressive disease and their carers, and can be effectively integrated into supportive services. Given its holism, yoga appears well suited to palliative care. However, cultural differences in attitudes and responses to yoga should be taken into account in service provision internationally, and are relevant to multi-cultural populations found in Europe. Rigorous research into the effects and feasibility of yoga as a nonpharmacological intervention is needed, in line with the MRC framework.

Poster N°: 236

Type of presentation: Poster
Poster session: First Group 29 May Thursday, 10.30 to 30 May Friday 13.00
Category: End of life care & quality of death
Title: The first Implementation of the Liverpool Care Pathway (LCP) in a German Hospital
Authors:
Steffen Simon Internal Medicine Department of Palliative Care, King’s College GERMANY
Mirja Martens Palliative Care Centre Oldenburg/Internal Medicine Oldenburg GERMANY
Michael Schwarz-Eywill Palliative Care Centre Oldenburg/Internal Medicine Oldenburg GERMANY
Rupert Bartner Palliative Care Centre Oldenburg/Internal Medicine Oldenburg GERMANY
Mariam Sachse Palliative Care Centre Oldenburg/Internal Medicine Oldenburg GERMANY

Background: The hospice movement in Germany is growing in the last five years and the numbers of palliative care units at hospitals are increasing. However, there is still a lack in caring of dying patients in hospitals beyond hospices and palliative care units (PCU). Aim: The aim of this study is to explore the professionals’ experiences while the implementation of the LCP in a general hospital in Germany for the first time. Methods: A qualitative study with a focus group of professionals’ experiences during the implementation and a literature review are presented. Results: The implementation of the LCP started in 2007 with the translated form of a Swiss group (St. Gallen). The qualitative exploration among the professionals shows a high acceptance of the LCP in general. Three aspects in particular are reported with a high value for quality of care: an improvement of self-confidence, a better symptom control and an enhancement of the interprofessional communication. However, some weaknesses are described like special phrases or some extra documentation. Most of the difficulties seem to be based on cultural differences or translation problems. Conclusions: After the first implementation of the LCP in a German hospital there is a good acceptance of this pathway among the professionals. Some suggestions for adaptation to the German situation are presented. For further research it is necessary to evaluate the effectiveness of this pathway in the German setting.

Poster N°: 237

Type of presentation: Poster
Poster session: First Group 29 May Thursday, 10.30 to 30 May Friday 13.00
Category: End of life care & quality of death
Title: Monitoring palliative sedation therapy in terminally ill patient with refractory symptoms in hospice use of modified Ramsay scale and Bispectral Index (BIS)
Authors:
Elio Spoldi Unità Operativa di Cura Palliative Istituti Ospitalieri di Cremona-Hospice ACCD ITALY
Michela Papi Associazione Cremonese Cura del Dolore Cremona ITALY
Federica Santini Associazione Cremonese Cura del Dolore Cremona ITALY
Donatella Giannuzio Azienda Istituti Ospitalieri di Cremona Cremona ITALY

Background: The literature shows a gap of informations about criteria used to decide to start sedation, patient’s consent, minimal level to obtain sedation and tools to measure it. Methods: This is a prospective study. The population is our Hospice cancer inpatients divided in two groups: a) patients with refractory symptoms admitted from July 1 to August 31 2007; b) patients with refractory symptoms admitted from November 1 to December 31 2007. We filled a schedule for each patient with clinical data, patient’s awareness and consent to PST. Sedation is started using Midazolam via s.c. or i.v. in continuous (0.02 mg/kg/h) and increased on the basis of clinical response. Level of sedation is measured with modified Ramsay scale, registered every 6 hours. In the second group b we’ll evaluate possible correlation between Ramsay scale and BIS. Statistical analysis with s.d. Results: We enrolled in group a 24 patients with refractory symptoms for whom we used PST. Refractory symptoms were: terminal distress 67%, dyspnoea 50%, pain 33%, delirium 21%, vomiting 9%. We obtained 11 patients’ consent; the others 13 weren’t able to express it. Symptoms’ control was reached with q Ramsay scale level 3 in 4 cases. q Ramsay scale level 4 in 13 cases; q Ramsay scale level 5 in 5 cases. From the beginning of PTC survival time was 45.2 ± 49.5 hours (range 2-171). Average midazolam dose to have symptoms’ control was 0.035 mg/kg/h (range 0.02-0.06 mg/kg/h). Conclusions: In palliative care is necessary to monitor level of sedation at the end of life with a validated instrument. We are waiting for latest results to see if Ramsay Scale and BIS are the right ones.

Poster N°: 238

Type of presentation: Poster
Poster session: First Group 29 May Thursday, 10.30 to 30 May Friday 13.00
Category: End of life care & quality of death
Title: Analysis of the drug policy when patients are admitted to a palliative care unit
Authors:
Bart Van den Eynden Centre for General Practice, Interdisciplinary Car University of Antwerp BELGIUM
Peter Demeulenaere Centre for Palliative Care ‘Sint-Camilus’ Antwerp BELGIUM
Background: After the admission of a patient to a palliative care unit his medication is looked after and adapted by the doctor according to the vision and principles of palliative care. Achieving comfort and good quality of life are of crucial importance. Methods: The records of 100 patients are analysed. All these patients are brought into a database registering their age, sex, length of stay at the unit, diagnosis and sub-diagnosis. The medication at the moment of decease or discharge of each patient is compared with the medication at the day of arrival at the palliative care unit. Because of the extensive drug arsenal, medication is classified in large drug categories. Results: The top 5 of the medication categories most frequently used at the palliative care unit are: strong opioids (69%), corticosteroids (54%), laxatives (52%), hypnotics (46%) and drugs for stomach protection (46%) at a shared fourth place, and non-opioid analgesics (42%). Conclusions: Important changes are observed in the subcutaneous medication: there is an important increase in the use of subcutaneous corticosteroids (300%) and of subcutaneous morphine (96%). The main reason is the intensive use of subcutaneous syringe drivers at the palliative care unit. Hypertension medication decreases with 41%, while the use of heart medication and diuretics remains almost identically. Drugs for diabetic patients diminish with 37% and medication to prevent thrombosis with 45%. Last but not least, the observation of a decrease of chemotherapeutic medication with 75% and of anti-parkinson medication with 50% is important. The use of cholesterol decreasing medication and of bisphosfonates is reduced to zero. Doctors are adjusting patients medication according to a clear-cut and fixed pattern but are taking into account the individual framework of each patient.

Poster N°: 239

Type of presentation: Poster
Poster session: First Group 29 May Thursday, 10.30 to 30 May Friday 13.00
Category: End of life care & quality of death
Title: End-of-life care and decision-making for cancer patients in different settings
Authors:
Agnes van der Heide Public Health Erasmus MC, University Medical Center Rotterdam NETHERLANDS
Siebe Swart Erasmus MC + Nursing Home Antonius IJsselmonde Center Rotterdam NETHERLANDS
Laetitia Veerbeek Erasmus MC Rotterdam NETHERLANDS
Lia van Zuylen Erasmus MC Rotterdam NETHERLANDS

Background: We investigated possible differences between clinical settings in the characteristics of medical decision-making during the last three months and the last three days of life of dying cancer patients. Methods: Physicians (response 100%) and relatives (response 59%) filled out questionnaires to collect data about cancer patients who had died in either the hospital (n=192), the nursing home (n=84), or at home (n=36). Results: Hospital patients were younger than other patients. Most symptoms were equally common in all settings. Hospital patients had more often than patients in both other groups received cancer treatment during the last three months of life. Explicit decisions to refrain from cancer treatment were equally common in all settings. Physicians reported that hospital patients received substantially more medication during the last three days of life than other patients and that they also more often received medication that had potentially hastened death. Relatives of hospital patients were slightly less positive about the patient’s and their own involvement in the medical decision making. Conclusions: We conclude that the final disease trajectory of cancer patients who die in the hospital involves more active medical management than the final disease trajectory of other cancer patients. This holds for both treatment of the underlying disease and treatment of symptoms. These differences have to be taken into account when evaluating the quality of life and communication in end of life care between settings.
change in health care policy (outpatient before hospital care), and the availability of home care services [1,2]. Caused by this trend caregivers are forced to assume much more responsibility for the care of their loved ones and are often distressed by acute exacerbation of symptoms of their relatives. Under these conditions the last resort is calling for help. Methods: In a retrospective study we analysed a twelve month period of emergency calls in two services in Germany for the percentage of calls caused by emergency calls in palliative patients. Participating physicians (specialists or trainees in anaesthesiology) were rated according to their expertise in emergency care (EC) and PC: PNEN: high level experience in EC and PC NEN: high level experience in EC; less experience in PC UEN: less experience in EC and PC. Results: During the period of interest 68 corresponding emergency calls were detected. Corresponding to 2.7% of all emergency calls during this period. Patients were comparable in their stage of disease. Twenty patients were treated by PNEN, twenty-one by NEN, and twenty-seven by UEN. Significantly more patients (p<0.05) were transferred to hospital by physicians of group UEN (62.9% by UEN vs. 42.9% by NEN vs. 30.0% by PNEN). Conclusions: Medical treatment of PC patients in an emergency is depending on the experience of emergency physicians (EP). Best agreement to the principles of PC is shown by EP’s with a high level of expertise in EC and PC. We are convinced that knowledge of PC must be integrated into the education of EP. Then it seems possible to translate the principles of PC and patients’ will into emergency prehospital treatment [3].

Poster N°: 242

Type of presentation: Poster
Poster session: First Group 29 May Thursday, 10.30 to 30 May Friday 13.00
Category: End of life care & quality of death
Title: A population-based survey of people who died from a stroke: the determinants of satisfaction with services reported by informants using the VOICES questionnaire
Presenting author: Julia Addington-Hall
Authors:
Amanda Young School of Nursing and Midwifery University of Southampton UNITED KINGDOM
Angie Rogers University of Southampton Southampton UNITED KINGDOM
Julia Addington-Hall University of Southampton Southampton UNITED KINGDOM

Background: Stroke is one of the leading causes of death. Recent UK policy increasingly emphasises the need for palliative care services to be based on individual need rather than diagnosis. Patient and carer satisfaction remain an important indicator of quality of care. Aims: To assess the determinants of satisfaction with services during the last three months and last three days of life to people who have died from a stroke in an institutional setting, from the perspective of bereaved relatives. Methods: A Stroke specific version of the VOICES questionnaire was developed and piloted. Informants were asked about their experiences of and satisfaction with services and quality of care in the last three months and three days of life of people who died following a stroke. The sub sample (n=166) was drawn from data collected by the Office of National Statistics (n=183, 37% response rate) in 2003 in London. The analysis was divided into two phases, univariate (Pearson $r^2$ test) and multivariate phase (backward stepwise logistic regression). A range of socio-demographic and service type variables were included in the analyses. Results: 66% of the deceased were over 80 and 40% were male. Five questions were used to assess informants' overall satisfaction with service providers (GPs, hospital doctors and nurses) and the service sector (care homes and health and social services). The regression models indicated that treating the deceased with respect and dignity was the strongest independent predictor of satisfaction with doctors (OR=4.2, 95% CI=1.2–15.4), nurses (OR=13.38, 95% CI=3.8–46.9) and care homes (OR=16.4, 95% CI=4.0–66.4). Conclusions: Findings of this population-based survey highlight the importance that family members place on their loved ones treated with respect and dignity at the end of life. Improving end of life care beyond cancer will require attention to improving fundamental aspects of health care, as well as specialist palliative care. Funding: Department of Health

Poster N°: 244

Type of presentation: Poster
Poster session: First Group 29 May Thursday, 10.30 to 30 May Friday 13.00
Category: Epidemiology
Title: Racial Disparity in Hospice Use in the United States
Authors:
Stephen Connor Research and International Development National Hospice and Palliative Care Organization U. STATES
Carol Spence National Hospice and Palliative Care Organization Alexandria U. STATES
Nicholas Christakis Department of Health Care Policy, Harvard Medical School Boston U. STATES
Felix Elwert Department of Health Care Policy, Harvard Medical School Boston U. STATES

Background: Despite the growth of hospice use in the United States following the enactment of the Medicare Hospice Benefit, relatively little is known about differential access to hospice care. While several studies have found that minorities are more likely to die in the hospital than Caucasians (Iwashyna and Chang 2002, Weitzien et al. 2003, Flory et al. 2004) and that minorities use hospice services at a lower rate than Caucasians (Colon and Lyke 2003, Greiner et al. 2003, Ngo-Metzger et al. 2003, Virnig et al. 2002, Enguidanos et al. 2005), no large-scale study has simultaneously evaluated the differences in access to, and utilization of, hospice care among different racial groups by age, sex, geography, and cause of death. Methods: We used complete Centers for Disease Control death certificate records and the CMS Medicare 100% Standard Analytic File for hospice claims for 2002 to evaluate differences in hospice utilization between African American and white decedents living in the United States. Results: White decedents were more likely to use hospice in the year prior to their death than African American decedents (29% vs. 22%). Cause-specific hospice utilization rates among women were consistently higher than among men within a given race. African American decedents were consistently less likely to use hospice than were white decedents for almost all conditions. Hospice utilization was lower among African American than among white decedents in 31 out of 40 states. Conclusions: The higher the overall hospice utilization in a state, the less the positive difference between white and African American usage rates; that is, the more accepted hospice is, as measured by “market share,” the lower the racial disparity in its use.

Poster N°: 245

Type of presentation: Poster
Poster session: First Group 29 May Thursday, 10.30 to 30 May Friday 13.00
Category: Epidemiology
Title: Monitoring the quality of end-of-life care through administrative data: is it possible?
Authors: Guido Minciceni epidemiology center for the study and prevention of cancer ITALY
Emanuele Crocetti CSPO Florence ITALY
Mauro Fallai ASL 1 Florence ITALY
Sara Benocci CSPO Florence ITALY
Massimo Piazza ASL 10 Florence ITALY
Maurizio Mannocci ASL 10 Florence ITALY
Piero Morino ASL 10 Florence ITALY
Eugenio Paci CSPO Florence ITALY

Background: Place of death and time spent in the hospital are considered useful indicators to monitor the quality of end-of-life care. Recently, other indicators of ‘aggressiveness’ of end-of-life care have been proposed. They need to be tested and to respond to some methodological critiques. Methods: 6036 cancer deaths which occurred in the region of Tuscany (about 3,500,00 inhabitants) had been included in the study. They refer to all cancer cases who were incident in the area during the year 2004 and survived <=1 year since diagnosis. Data on incidence, cause of death, inpatient and outpatient use of the hospital from diagnosis till death were collected by the local Cancer Registry. Information on the admission to palliative care were supplied by the local home palliative care services for the area of Florence (about 1,000,000 inhabitants). Results: Mean age at diagnosis was 76.1, female 40%, 26% died of lung cancer. Among residents in the province of Florence 29% received home palliative care (21% in the city, 38% in the rest of province) with a median stay of 23 days (19 in the city, 24 in the rest of province). At a regional level (excluding Florence) 43% dead in the hospital and among them 19% received an ‘invasive’ procedure during their last 48 hours of life. 11% had more than 1 admission and 14% spent more than 2 weeks in the hospital during the last month; 4% received chemotherapy during the last 2 weeks. In the province of Florence those same indicators were 48.3%,8.6%,9.1%,16.3%,4% and 12.6%,1.8%, 4.6%,6.6%,2.7% respectively in people not receiving/receiving home palliative care. Differences were statistically significant both at univariate and multivariate analyses (including adjustment for length of survival). Conclusions: Home palliative care was effective in reducing the level of ‘aggressiveness’ in end-of-life care. Deriving end-of-life care indicators from administrative data is a viable option to look at the impact of palliative care at a population level and to monitor its temporal trend.

Poster N°: 246

Type of presentation: Poster & poster discussion session
Poster session: First Group 29 May Thursday, 10.30 to 30 May Friday 13.00
Category: Epidemiology
Title: Access to Hospital Palliative Care in the United States
Authors: R. Sean Morrison Hertzberg Palliative Care Institute Mount Sinai School of Medicine U. STATES
Jessica Dietrich Center to Advance Palliative Care New York U. STATES
Quilling Du Mount Sinai School of Medicine New York U. STATES
Benjamin Goldsmith Mount Sinai School of Medicine U. STATES

Background: U.S. hospital palliative care programs (HPCP) are increasing in prevalence. This study was undertaken to explore geographic variation in patient access to HPACP and to examine access to HPACP by medical trainees in the U.S. Methods: Design: Primary and secondary data analyses of national survey and U.S. census data. Methods: Data on HPACP were obtained from the 2006 American Hospital Association (AHA) annual survey supplemented by mailed surveys. The AHA surveys all hospitals in the U.S. annually and includes data on hospital structures, programs, and since 2000 the presence of a HPACP. Medical school-affiliated hospitals were obtained from the American Association of Medical Colleges, web-site review, and telephone survey. Multivariable logistic regression was used to identify characteristics associated with HPACP. Results: 46.5% of hospitals with 50 or more beds reported a HPACP. Considerable variation in state prevalence rates was observed – from 2% of hospitals (Mississippi) to 100% (Vermont). 21.0% (204 of 970) of public hospitals reported a HPACP. Factors significantly associated (P<0.05) with a HPACP included location, greater hospital size, owning a hospice, having a cancer program, percent of persons in the county with a university education, and medical school affiliation. For-profit and public hospitals were significantly less likely to have HPACP when compared to non-profit hospitals. Most medical schools (81.7%) are associated with at least one HPACP (86% of private and 80% of state supported schools, P<0.01). 65.6% of hospitals with post-graduate residency training programs reported a HPACP. Conclusions: This study represents the most accurate estimate to date of the prevalence of U.S. HPACP. There is geographic variation in access to palliative care although factors predicting HPACP have not changed since our last report in 2005. Medical students and post-graduate trainees have high rates of access to HPACP although complete penetration into these academic settings has not yet been achieved.

Poster N°: 247

Type of presentation: Poster
Poster session: First Group 29 May Thursday, 10.30 to 30 May Friday 13.00
Category: Epidemiology
Authors: Kyriaki Mystakidou Pain Relief and Palliative Care Unit University of Athens GREECE
Marinos Tsiatas Department of Clinical Therapeutics «Alexandros» Hospital, School of Medicine, University of Athens GREECE
Lambros Vlahos Radiology Department, Areteion Hospital, University of Athens, School of Medicine Athens GREECE

"Palliative Medicine " 475
Background: The objective is to describe for the first time where patients with cancer and cardiovascular/respiratory diseases die in Greece and what has changed between 1993 and 2003. We used data on all patients with cancer and cardiovascular/respiratory diseases who died in Greece in the years 1993 and 2003. Methods: We studied the changes in the location of death in the total population, age- and sex-adjusted incidence changes and age and sex specific incidence changes between years 1993 and 2003 according to a linear regression model. Results: In 1993 in Greece approximately 50.7% of men and 50.9% of women cancer patients died in hospital, while in 2003 the respective percentages were 57.3% and 56.1%. In 1993, approximately 46.5% of men and 38.3% of women patients in Greece suffering from cardiovascular/respiratory disease died in hospital while in 2003 the respective percentages were 50.1% and 42.3%. In case of cancer and cardiovascular/respiratory diseases, there was an overall 35.9% and 22.3% increase in the possibility for a hospital death between 1993 and 2003. The specific needs have to be addressed to achieve an adequate provision of care. Further prospective research is essential.

Poster N°: 249

Type of presentation: Poster
Poster session: First Group 29 May Thursday, 10.30 to 30 May Friday 13.00
Category: HIV / AIDS
Title: AIDS: a shifting care model from palliative care to rehabilitation where antiretroviral therapy is available in Africa.
Authors: Scott Murray General Practice – Research The University of Edinburgh UNITED KINGDOM
Eliud Logie University of Edinburgh Melrose UNITED KINGDOM
Dermot Gorman NHS Lothian Edinburgh UNITED KINGDOM
Mary Masurulubilo Community Resource Centre Lusaka ZAMBIA
Elizabeth Grant Lothian Health Edinburgh UNITED KINGDOM

Background: Antiretroviral therapy (ART) is increasingly available in African communities to people who would otherwise die, yet uptake is relatively slow. We aim to gain patient perceptions on factors which facilitate and challenge access and adherence to ART as this disease-modifying therapy becomes available. Methods: Forty HIV positive people from a deprived township in the Copperbelt, Zambia undertook semi-structured interviews which were repeated 12 months later by 25 participants; 12 participants also took part in a focus group. Interviews were conducted in the local vernacular, recorded manually, and transcribed in English. Transcripts and field notes were checked and coded by two experienced researchers and analysed around access, adherence and any emerging themes. Results: Availability of medication did not automatically translate to uptake. Initially, too few HIV testing centres, plus family and community rejection and male control over sexual relationship decisions, reduced the numbers of those coming for testing. Unhelpful rumours and inconsistent information, and the costs of tests and drugs (in the first interviews), plus overcrowded clinics and overworked staff all hindered people starting treatment. Therapy brought side effects such as increased appetite and hunger. Factors which enabled good adherence were: seeing ill people becoming well; being supported by a friend or family member; having a watch or clock to keep to a regular regime. The increase in people looking well also changed community attitudes. These factors contributed to the perception of AIDS as no longer a terminal disease, but as a condition which is treatable. Conclusions: Many local factors challenged uptake and adherence. The recent availability of effective treatment and healthy survivors is helping to motivate people to come for testing, and serving to destigmatise the disease. A holistic, rehabilitation focused model for HIV care, integrated in primary care, is now needed.

Poster N°: 250

Type of presentation: Poster
Poster session: First Group 29 May Thursday, 10.30 to 30 May Friday 13.00
Category: HIV / AIDS
Title: Specialist Palliative Care for HIV in the HAART Era: A qualitative study of HIV and Palliative Medicine Physicians
Authors: Sarah Wenham Palliative Care Team Salford Royal NHS Foundation Trust UNITED KINGDOM
Edmund Wilkins Pennine Acute Hospitals NHS Trust, North Manchester General Hospital Manchester UNITED KINGDOM

Background: AIDS: a shifting care model from palliative care to rehabilitation where antiretroviral therapy is available in Africa.
Poster N°: 251 withdrawn

Poster N°: 252

Type of presentation: Poster
Poster session: First Group 29 May Thursday, 10.30 to 30 May Friday 13.00
Category: Pain
Title: Pain in cancer. An Outcome Research Project to evaluate the epidemiology, the quality and the effects of pain treatment in cancer patients
Authors:
Giovanni Apolone Mario Negri Institute ITALY
Franco De Conno National Cancer Institute Milan ITALY
Oscar Corli Clinical Institute Milan ITALY
Mariagiovanna Nicaia Grunenthal-Formenti Milan ITALY
Marco Maltoni Hospice Forlìcimopoli ITALY
Giovanni Apolone Mario Negri Institute Milan ITALY
Oscar Bertetto Molinette Hospital Torino ITALY
Roberto Labianca Ospedali Riuniti Bergamo ITALY
Valer Torri Mario Negri Institute Milan ITALY
Furio Zacco Hospice Garbagnate Milanese ITALY

In the context of a wide multidisciplinary project (I Ambulatory Care Manage 29:332–341, 2006), a nationwide multicenter, prospective outcome research study was launched in Italy in 2006 to investigate the epidemiology of cancer pain, the pattern and quality of analgesic-drug therapy, and the evolution of health outcomes over time. In a large, prospective, cohort of advanced cancer patients reporting pain, investigators collected predictive and prognostic variables, information about type of care, as well as several patient-reported-outcomes, such as pain, quality of life, satisfaction with analgesic care using standardized questionnaires and data collections forms. 110 centers recruited 1801 patients from February 2006 to March 2007. Subjects were monitored for 28 days and then with a simplified scheme for another 4 weeks. At inclusion, 50% had bone metastasis, 73% a level of pain classified as moderate-severe, 48% reported episodes of breakthrough pain, 49% were still on active anti-cancer treatments and 60% were already on treatment with strong opioids. When the Pain Management Index (PMI) was computed to provide a rough estimate of how pain was treated (Cleeland et al, NEJM 330:592–596, 1994), up to 45% had negative values suggesting a possible analgesic under-treatment, with large variations according to a selected list of clinical variables. In the sub-sample of patients with a complete follow-up at 28 days (no.=1461), all pain and palliative outcomes did significantly improve on average, with variations according to ease mix, type of treatments and type of recruiting centers. Outcomes based on worst and average pain intensity showed the higher effect size estimates (0.84 and 0.69) when compared to patients’ satisfaction and quality of life (0.44, 0.35). Up to 26% of patients were classified as non-responders. This outcome research study carried out at national level produced data to help implement future educative and research activities in Italy.

Poster N°: 253

Type of presentation: Poster
Poster session: First Group 29 May Thursday, 10.30 to 30 May Friday 13.00
Category: Pain
Title: Strong Opioid Substitution, does it work?
Authors:
Melanie Brooks Palliative Medicine University Hospital Aintree UNITED KINGDOM
Trudy Hutchinson Royal Liverpool University Hospital Liverpool UNITED KINGDOM
Andrew Dickman Marie Curie Hospice Liverpool UNITED KINGDOM
Heleem Williams St. Johns Hospice in Wirral Wirral UNITED KINGDOM
Matthew Makin North East Wales NHS Trust Wrexham UNITED KINGDOM

Background: Opioids are used commonly in palliative care. The range of strong opioids available is increasing and substitution of one opioid for another is established practice. In the current literature there are differences of opinion regarding reasons for substitution and choice of opioid to switch to. Methods: This project aimed to examine all cases of strong opioid substitution within a Palliative Care Network in Northwest England during a six week period. A multi-centre multi-disciplinary prospective survey was performed. A questionnaire for each opioid substitution was distributed to all specialist palliative care inpatient, hospital and community teams within the network. It detailed the reason for substitution, the opioids used and symptoms at the time of substitution and three days later. Results: 63 opioid substitutions were performed in patients whose opioid was for pain control. 51 (77%) had not undergone opioid substitution at study entry. Morphine was the most commonly used opioid prior to substitution (37 patients, 59%). Oxycodone was the most commonly used opioid after substitution (37 patients, 59%). The reasons for substitution were: adverse effects (48% (76%), uncontrolled pain 45 (71%), renal impairment 14 (22%), loss of oral route nine (14%), neuropathic pain nine (14%). Pain improved in 37 (59%) and was worse in two (3%) patients after substitution. Five (8%) patients required further opioid substitution. In those with adverse effects hallucinations improved in 88%, myoclonus in 71%, drowsiness in 65%, confusion in 64% and constipation in 38% following substitution. Conclusions: This survey confirms that opioid substitution can be employed successfully in a large proportion of patients with uncontrolled pain and opioid related side effects. Morphine remained the first choice opioid, oxycodone was the most commonly used opioid after substitution. Following this survey, guidelines on opioid substitution will be revised to support safe strong opioid substitution across the network.

Poster N°: 254

Type of presentation: Poster
Poster session: First Group 29 May Thursday, 10.30 to 30 May Friday 13.00
Category: Pain
Title: Pump systems improve the analgesia in pre-terminal head neck cancer patients
Background: Advanced head neck cancer patients are often suffering from ineffective analgesia due to their cachexia and dysphagia. The continuous application of opiates may offer a new approach for effective pain control. 

Methods: We report about our experiences with 21 patients between 2006 and 2007. The median survival time of included patients was 2 month (range 14 days to 124 days). All patients suffered from advanced head and neck cancer and had reported about ineffective analgesia by trans-dermal systems and enteral morphine via PEG. That's why all patients received intravenous morphine (doses between 200 mg and 1.150 mg/day). In 10/21 patients we used electronically controlled pump systems with the possibility of limited bolus applications. Further 11 patients got simple mechanically controlled pump systems. Results: All patients reported about improved analgesia. 19/21 patients were free of pain. Side effects were infections of the port system in 7/21 cases, somnolence (3/21), and abuse reactions (2/21). Both cases of abuse reactions were seen in cases of bolus administrations. The time of intravenous morphine administration varied between 2 week and 4 month. 10/21 patients died at home. Conclusions: The continuous administration of opiates is a safe way to improve the analgesia in cachectic patients with advanced head and neck cancer. Bolus applications should only be offered in patients with sufficient compliance. This individual decision should include the personal abuse history.

Poster N°: 255

Type of presentation: Poster
Poster session: First Group 29 May Thursday, 10:30 to 30 May Friday 13:00
Category: Pain
Title: Efficacy of morphine and methadone association in refractory cancer pain: a Case Report
Authors:
Maria Costanza Calia S.C. Terapia del dolore e cure palliative ASO S.Giovanni Battista ITALY
Maddalena Castellano S.C. Terapia del dolore e cure palliative Torino ITALY
Anna De Luca S.C. Terapia del dolore e cure palliative Torino ITALY
Carla Roero S.C. Terapia del dolore e cure palliative Torino ITALY
Carla Fioriano S.C. Terapia del dolore e cure palliative Torino ITALY
Maria Teresa Ambrosini S.C. Terapia del dolore e cure palliative Torino ITALY

Background: A 72 year-old men was diagnosed four years ago with pulmonary large cell neuroendocrine carcinoma. He had thoracic pain poorly responsive to escalating dose of transdermal fentanyl, thus he received an implanted epidural catheter for long term analgesia. The pain had been adequately controlled with morphine cloridrate 120 mg/die and bupivacaine 90 mg/die for 6 months. Methods: He was admitted to the hospital for acute intolerable thoracic pain: magnetic resonance imaging showed an epidural fibrosis and a epidural haematoma without neurological symptoms, at the C7-T1 level. He underwent removal of the catheter and the analgesia was converted to subcutaneous (SC) morphine 400 mg/die, with inadequate pain control, somnolence and confusion. The Karnofsky Performance Status (KPS) was 40. He was switched to SC methadone 90 mg/die. The sedation disappeared, the pain was still unrelieved although methadone was increased to 200 mg/die in the following five days. The patients underwent a central venous catheter placement for continuous infusion of intravenous (IV) methadone because of local toxicity of SC infusion. During the following two days the infusion rate was increased to 270 mg/die. Supplemental methadone doses were ineffective, while the patient reported pain relief with supplemental IV morphine. Thus the patient started continuous infusion of IV morphine 100 mg/die and IV methadone 270 mg/die. After four days the pain was adequately controlled with IV morphine 230 mg/die and IV methadone 300 mg/die, without side effects. Results: He was discharged from the hospital and supported at home by a palliative care unit. During 60-day follow-up, he was pain free, the KPS was 80 and the dose of IV morphine was progressively decreased to 110 mg/die. Conclusions: This case indicates the potential utility of methadone and morphine association in refractory cancer pain, but further investigations are needed to confirm this observation.
Hydromorphone (HM) is a semi-synthetic opioid for the treatment of malignant and non-malignant chronic pain. Its pharmacokinetics and pharmacodynamics have been well studied. In clinical practice, it is a widely used analgesic in palliative care patients. The purpose of this study was to evaluate the safety and efficacy of HM in the management of difficult cancer pain in patients with poor health status and renal failure.

Methods: A retrospective study of 546 patients admitted to our Palliative Care Unit between 2004–2006 was performed. Patients with mild to severe renal failure (creatinine serum concentration >2.0 mg/dl) and cancer pain treated with hydromorphone during their hospital stay were included. Demographic and cancer-related data were documented. Statistics: mean±SD, significance p < 0.05. Results: Renal impairment was documented in 138 (25.3%) patients, (age 66.3±12.5, 60 (43.5%) men). In all patients, the reason for admission was inadequate control of pain, dyspnoea and/or other symptoms. Most patients had cancer in an advanced stage (most common of lung, prostate, and breast). Mean Karnofsky index was 51.4±14.1 (range 20–80). Mean serum creatinine concentration was 4.8±3.0 mg/dl, and blood urea nitrogen 64.0±53.3 mg/dl. Of the 138 patients 9 were opioid-naïve, 92 pre-treated with morphine (M) and 37 with transdermal fentanyl. Mean daily dose of HM at discharge was 37.0±34.1 mg (277.8±255.0 mg morphine equivalence – considering an equianalgesic conversion ratio of M:HM = 7:5.1). Nausea and vomiting, myoclonus and sedation were significantly reduced by use of HM. Analgesic response improved clearly. Conclusions: HM can be an effective safe analgesic alternative for oral management of chronic cancer pain and/or dyspnoea in patients with renal impairment and pharmacological side effects under M treatment.

Poster N°: 258

Type of presentation: Poster
Poster session: First Group 29 May Thursday, 10.30 to 30 May Friday 13.00
Category: Pain
Title: Use of Hydromorphone in patients with renal impairment
Authors:
Katri Elina Clemens Department of Science and Research, Centre for PM University of Bonn, Malteser Hospital Bonn GERMANY
Helmut Hoffmann-Menzel Centre for Palliative Medicine, Malteser Hospital Bonn, University of Bonn Bonn GERMANY
Eberhard Klaschik Centre for Palliative Medicine, Malteser Hospital Bonn, University of Bonn Bonn GERMANY
Ines Quednau Centre for Palliative Medicine, Malteser Hospital Bonn, University of Bonn Bonn GERMANY

Background: Hydromorphone (HM) is a semi-synthetic opioid for the treatment of malignant and non-malignant chronic pain. Its pharmacokinetics and pharmacodynamics have been well studied. In clinical practice, it is a widely used analgesic in palliative care patients. The purpose of this study was to evaluate the safety and efficacy of HM in the management of difficult cancer pain in patients with poor health status and renal failure.

Methods: A retrospective study of 546 patients admitted to our Palliative Care Unit between 2004–2006 was performed. Patients with mild to severe renal failure (creatinine serum concentration >2.0 mg/dl) and cancer pain treated with hydromorphone during their hospital stay were included. Demographic and cancer-related data were documented. Statistics: mean±SD, significance p < 0.05. Results: Renal impairment was documented in 138 (25.3%) patients, (age 66.3±12.5, 60 (43.5%) men). In all patients, the reason for admission was inadequate control of pain, dyspnoea and/or other symptoms. Most patients had cancer in an advanced stage (most common of lung, prostate, and breast). Mean Karnofsky index was 51.4±14.1 (range 20–80). Mean serum creatinine concentration was 4.8±3.0 mg/dl, and blood urea nitrogen 64.0±53.3 mg/dl. Of the 138 patients 9 were opioid-naïve, 92 pre-treated with morphine (M) and 37 with transdermal fentanyl. Mean daily dose of HM at discharge was 37.0±34.1 mg (277.8±255.0 mg morphine equivalence – considering an equianalgesic conversion ratio of M:HM = 7:5.1). Nausea and vomiting, myoclonus and sedation were significantly reduced by use of HM. Analgesic response improved clearly. Conclusions: HM can be an effective safe analgesic alternative for oral management of chronic cancer pain and/or dyspnoea in patients with renal impairment and pharmacological side effects under M treatment.

Poster N°: 259

Type of presentation: Poster
Poster session: First Group 29 May Thursday, 10.30 to 30 May Friday 13.00
Category: Pain
Title: Older Peoples Attitudes Towards their Cancer Pain Experience: A review of the literature
Authors:
Margaret Dunham Faculty of health & Wellbeing Sheffield Hallam University UNITED KINGDOM
Christine Ingleton Centre for Health & Social Care Studies, University of Sheffield Sheffield UNITED KINGDOM
Merryn Gott Sheffield Institute for Studies on Ageing, University of Sheffield Sheffield UNITED KINGDOM

Background: Older people with cancer do not always have access to appropriate palliative care teams and their end of life care is often suboptimal (Burt & Raine 2004). Pain and symptom management are critical for quality end-of-life care with recent research suggesting that many are dying without adequate pain relief (Fineberg et al 2006). There is an unfortunate myth that older people feel less pain than younger ones hence older people are less likely to receive appropriate pain relief and are less likely to have opioids for pain control. User involvement is advocated as having the potential to enhance the care of palliative care recipients (Gott 2003). This review aims to explore the literature surrounding attitudes to cancer pain in older people from the patient’s and carer’s perspective. Methods: A literature review of a variety of published literature was undertaken using the principles of the systematic review process. Papers were identified from a variety of sources including relevant databases and journals including Medline, Cinahl Embase, PsycINFO and the Cochrane Library. Initial terms included “pain”, “cancer”, “attitudes” and “older people”. Search terms were widened to incorporate MeSH term variations to ensure a thorough and comprehensive search. Results: Initial trawl of the databases has identified over 300 research papers written in English. The majority of papers are about the health professional’s perspective. Recently there appears to be a trend moving away from researching the health professionals’ perspective. There is increasing research on the carers’ perspective but a definite paucity of significant research on older people from the users’ perspective on cancer related pain. Ethical considerations appear to be a significant barrier to research in this field. Conclusions: There is an imperative to embrace more sensitive qualitative research in this area. Reluctance to approach this vulnerable group must be overcome in order to support the delivery appropriate and effective patient care.
is the key factor for individualised treatment. Slow-released formulation. Appropriate assessment of the patient's situation. Adequate pain relief can be obtained with transdermal opioids despite their

Background:

Greta Ström Södertälje ASIH Södertälje SWEDEN
Bertil Axelsson Storsjögläntan Östersund SWEDEN
Hans Johansson Södertälje ASIH Södertälje SWEDEN

Title: Can Two Questions Screen for the Need for Antiemetic Prophylaxis when Starting Treatment with Opioids in the Palliative Setting?

Category: Pain

13.00

Poster session: First Group 29 May Thursday, 10.30 to 30 May Friday 13.00

Type of presentation: Poster

Poster N°: 261

Background:

Opioid-induced nausea is experienced by 25–40% of a population. In a palliative setting little is known about who will encounter this, but for anesthetists postoperative nausea and vomiting is a well-established term. We have extrapolated from their research two questions; whether a history of previous opioids or of motion sickness can foresee who needs prophylaxis. Methods: In 3 palliative home care centers patients with incurable cancer who were in need of a strong opioid and opioid-naïve were identified and included after given informed consent. Reasons for exclusion were nausea or vomiting the last two days, use of antiemetic drugs, cognitive failure, short life expectancy, and recent or planned chemotherapy. Concurrent medicines of interest were registered. The patients were asked whether they had had nausea at earlier opioid-use/surgery, and if they had a previous history of motion-sickness. For 7 days nausea was rated according to an NRS scale (0–10). If the patient scored more than 2, vomiting or needed antiemetics, the study ended. Results: We enrolled 42 patients, whereof 20 (48%) were female. The median age was 70.8. 15 (35.7%) became nauseous or vomited within a week. There was no correlation between the proposed risk factors alone and nausea, but with the two factors together there was a tendency towards a correlation between them and nausea (p=0.079). The specificity was 89% but sensitivity was only 33%. There was no difference in outcome between different opiates, cancer forms, or sex. Use of corticosteroids was an independent risk factor against nausea (p=0.0040). Conclusions: The group with nausea is large, even in this selected group. We found no hard statistical evidence that our screening questions could find patients at risk to develop nausea upon starting opioids. We found a negative predictive value, but for screening the questions are worthless due to their low sensitivity. Corticosteroids seem to protect against nausea and should maybe have been a criterion for exclusion.

Poster N°: 262

Type of presentation: Poster

Poster session: First Group 29 May Thursday, 10.30 to 30 May Friday 13.00

Category: Pain

Title: Classification and assessment of cancer breakthrough pain: a review of the literature

Authors:

Dagny Faksøv Haugen Department of Cancer Res. and Molecular Medicine Norwegian University of Science and Technology NORWAY on behalf of the EPCRC, European Palliative Care Research Collaborative Trondheim NORWAY
Marianne Jensen Hjermstad Department of Cancer Research and Molecular Medicine, Norwegian University of Science and Technology, and Department of Oncology, Ullevål University Hospital Trondheim and Oslo NORWAY
Stein Kaua Department of Cancer Research and Molecular Medicine, Norwegian University of Science and Technology, and Palliative Medicine Unit, Department of Oncology, St. Olav's Hospital Trondheim NORWAY

Background: The European Palliative Research Collaborative (EPCRC) is developing a computer-based tool for classification and assessment of cancer pain. The tool shall include breakthrough pain (BTP). The aim of the present study was to perform a systematic review of the literature on classification and assessment of BTP. Methods: PubMed, Embase, CINAHL, PsycINFO, and the Cochrane Database were searched using [“breakthrough pain” OR “break through pain” OR “BTP” OR “incident pain” OR “incidental pain” OR “episodic pain” OR “transient pain” OR “transitory pain” OR “pain flare”] AND Neoplasms [Mesh], with no limitations. Searches were completed by 28 Sept 2007. Results: 325 different abstracts were identified and screened. They yielded 47 relevant articles: 18 reviews, 20 clinical studies, 3 case studies, and 6 guidelines / expert opinions / consensus reports. The number of patients in the clinical studies ranged from 7 to 1095. All papers came from North America or Europe. The term BTP was by far most commonly used (31/47), although the EAPC in 2002 proposed the terms transient or episodic pain. There is no consensus for a definition of BTP. The first definitions proposed by Portenoy and Hagen 1989/1990 were most often cited. 35 papers presented a classification of cancer BTP: according to subtypes (35), pathophysiology/mechanism (27), and etiology/cause (13). Most authors agreed on three subtypes based on precipitating factors and predictability: incident pain (volitional and nonvolitional), spontaneous/idiopathic pain, and end-of-dose failure. Assessment of BTP was included in 38 articles. Several well-known pain questionnaires were used or mentioned. Eight assessment tools for BTP were described. None of these were validated. Conclusions: There is no consensus concerning the definition or classification of BTP. Most authors agree that BTP needs a separate, thorough assessment, but no independently validated assessment tool was identified.

Poster N°: 263

Type of presentation: Poster & poster discussion session

Poster session: First Group 29 May Thursday, 10.30 to 30 May Friday 13.00

Category: Pain

Title: Pharmacokinetics of transdermal fentanyl in normal weight and cachectic cancer pain patients

Authors:

Tarja Heiskanen Pain Clinic Helsinki University Central Hospital FINLAND
Eija Kalso Helsinki University Central Hospital Helsinki FINLAND

Background: Absorption of fentanyl from the transdermal patch is governed by skin permeability and by local blood flow. In clinical practice, cachectic
Background: Chronicobiological background: Circadian rhythms have been documented throughout the plant and animal kingdom. They are endogenous in nature, driven by oscillators or clocks, and persist under free-running conditions. Clock genes have recently been identified in human tissues such as the skin and the mucosa. Generally, the endogenous clock in man does not run exactly at a frequency of 24 hours. Environmental time cues, or Zeitgebers, entrain the circadian rhythm to a precise 24-hour period. It is important to note that endogenous biological rhythms are anticipatory in nature. Chronokinetics, chronodynamics and pain: It is still a common phenomenon in clinical pharmacology that pharmacokinetic (PK) parameters, as well as drug effects, are not considered to be influenced by time of day of drug administration. Nevertheless we find important, therapeutic-relevant rhythms in different types of pain such as rheuma-symptoms and pain in osteoarthritis, cancer-pain and post-operative pain. Drugs of different classes used for pain treatment—local anaesthetics, NSAIDs, opioids and placebo – do not only display significant variations in PKs but also in analgesic effects. Even concentrations of endogenous opioids such as endorphins and enkephalins, were shown to be rhythmic in rodents.

Methods: Review.

Results: The results of a multitude of studies in chronobiology are not consistent. By administration of analgesics over a constant or continuous dosage time fluctuations in pain perception and a multitude of studies in chronobiology are ignored that prove the influence of biological rhythms on the pharmacokinetic and pharmacodynamic of analgesics.

Conclusions: A flexible dosage depending on pain intensity and a fast dose adjustment are essentials of a modern pain therapy. We have to reflect critically on the latest developments in pain therapy aiming the longest sustained release possible. More studies with standardised protocols concerning the circadian intensity of different kinds of pain are needed.

Poster N°: 264

Type of presentation: Poster
Poster session: First Group 29 May Thursday, 10.30 to 30 May Friday 13.00
Category: Pain
Title: Chronobiology of Pain
Authors:
Uwe Junker Pain Therapy and Palliative Care Sana Klinikum Remscheid GERMANY
Hanna Ludwig Sana Klinikum Remscheid GERMANY

Background: Chronobiological background: Circadian rhythms have been documented throughout the plant and animal kingdom. They are endogenous in nature, driven by oscillators or clocks, and persist under free-running conditions. Clock genes have recently been identified in human tissues such as the skin and the mucosa. Generally, the endogenous clock in man does not run exactly at a frequency of 24 hours. Environmental time cues, or Zeitgebers, entrain the circadian rhythm to a precise 24-hour period. It is important to note that endogenous biological rhythms are anticipatory in nature. Chronokinetics, chronodynamics and pain: It is still a common phenomenon in clinical pharmacology that pharmacokinetic (PK) parameters, as well as drug effects, are not considered to be influenced by time of day of drug administration. Nevertheless we find important, therapeutic-relevant rhythms in different types of pain such as rheuma-symptoms and pain in osteoarthritis, cancer-pain and post-operative pain. Drugs of different classes used for pain treatment—local anaesthetics, NSAIDs, opioids and placebo – do not only display significant variations in PKs but also in analgesic effects. Even concentrations of endogenous opioids such as endorphins and enkephalins, were shown to be rhythmic in rodents.

Methods: Review.

Results: The results of a multitude of studies in chronobiology are not consistent. By administration of analgesics over a constant or continuous dosage time fluctuations in pain perception and a multitude of studies in chronobiology are ignored that prove the influence of biological rhythms on the pharmacokinetic and pharmacodynamic of analgesics.

Conclusions: A flexible dosage depending on pain intensity and a fast dose adjustment are essentials of a modern pain therapy. We have to reflect critically on the latest developments in pain therapy aiming the longest sustained release possible. More studies with standardised protocols concerning the circadian intensity of different kinds of pain are needed.

Poster N°: 266

Type of presentation: Poster
Poster session: First Group 29 May Thursday, 10.30 to 30 May Friday 13.00
Category: Pain
Title: Classification of cancer pain – a systematic literature review and further research strategy
Authors:
Anne Kari Knudsen Dep. of Cancer Research an Moleculare Medicine Norwegian University of Science and Technology NORWAY
Marianne Jensen Hjerstadt Norwegian Institute of Science and Engineering and Ullevål University Hospital Trondheim and Oslo NORWAY
Marit Jordhøy Norwegian Institute of Science and Engineering and Sykehuset Inlandet Gjovik Trondheim and Gjøvik NORWAY
Augusto Caraceni National Cancer Institute of Milan Milan ITALY
Nina Aas Norwegian Institute of Science and Engineering and the Norwegian Radium Hospital Trondheim and Oslo NORWAY
Robin Fainsinger Capital Health Regional Palliative Care Program, Grey Nuns Hospital Edmonton CANADA
Stein Kaasa Norwegian Institute of Science and Engineering and St. Olav University Hospital Trondheim NORWAY

Background: Pain is one of the most prevalent and feared symptoms in advanced cancer patients. Insufficient assessment methods and inconsistent classification are cited as important reasons why treatment is still often inadequate. Thus, one aim of the EPCRC is to develop a classification system for advanced cancer patients with pain, based on international consensus. As a first step, a systematic literature review was performed in order to identify existing classification systems for cancer pain and cancer patients with pain.

Methods: A systematic literature search in Medline and EmBase using OVID as search engine was performed, covering 1986–2006. The search strategy was based on the terms “classification” or “categorisation” or “staging”, and “neoplasms” or “cancer”, and “pain”. Only papers in English or German assessing adult patients were included. All reports were evaluated by two independent readers.

Results: 692 hits were obtained. 95 papers were included for further analysis. Nine papers describing three formal classification systems for cancer pain were identified: The International Association for the Study of Pain (IASP) Classification of Chronic Pain, the Cancer Pain Prognostic Scale (CPPS) and the Edmonton Classification System for Cancer Pain (ECS-CP). The first is a descriptive system for pain syndromes, while the latter two include both pain and patient related factors aiming to predict probability of pain control. However, the factors included in the CPPS are more complex and less well defined than in the ECS-CP. Otherwise, several informal approaches for classifying cancer pain were found, most of which were based on pathophysiology, etiology, intensity, temporal pattern, pain syndromes and location of pain.

Conclusions: Further research found on this review, expert meetings and consensus within the EPCRC. The development of a new classification system will be based upon the ECS-CP and include pain-, disease– and patient related dimensions and tested empirically in an international setting.
Background: A single point prevalence survey demonstrated that approximately 90% of patients with cancer experience pain. Depression occurs in approximately one quarter of advanced cancer patients. The relationship between depression and pain is of great importance in routine clinical practice. The aim of this systematic review is to examine the relationship between cancer pain and depression. Methods: An extensive literature search was undertaken. The following databases were searched electronically: Medline (1950–2007), Embase (1988–2007), Cinahl (1982–2007) and the Cochrane Database of Systematic Reviews (Issue 2 2007). Relevant journals were also searched by hand. Results: As a consequence of a broad search strategy, 892 articles were identified. A consensus was reached that 41 papers were suitable for detailed review using a pre-determined proforma. Following independent review 14 articles were deemed appropriate for inclusion. The mean prevalence of depression and pain was 31.5% (range 20.2 – 46.0) and 63.3% (range 37 – 100%) respectively. In 10 out of 14 studies a statistically significant association was demonstrated between pain and depression: Pain intensity positively correlated with depression (to levels of statistical significance *p*<0.05). Pain interference items such as “worst pain” and “enjoyment of life” (measured on the BPI) correlated significantly with depression. When using the McGill Pain Questionnaire, depressed patients used more affective descriptors. It was also shown that the longer the duration of pain, the higher the risk of depression. Conversely as pain decreased so did depression, to levels of statistical significance. Conclusions: Both pain and depression are highly prevalent in cancer patients however there have been no appropriately designed studies to examine a causal relationship. A suitably designed longitudinal study to examine causality would be a highly, clinically relevant step in the research agenda.

Poster No*: 267

Type of presentation: Poster
Poster session: First Group 29 May Thursday, 10.30 to 30 May Friday 13.00
Category: Pain
Title: Cancer Related Breakthrough Pain; A critical review of the literature
Presenting author: Angela Boyd
Authors: Barry Laird Palliative Medicine University of Edinburgh UNITED KINGDOM
Lesley Colvin University of Edinburgh Edinburgh UNITED KINGDOM
Marie Fallon University of Edinburgh Edinburgh UNITED KINGDOM
Angela Boyd University of Edinburgh Edinburgh UNITED KINGDOM

Background: Cancer related breakthrough pain is a prevalent and clinically meaningful problem that presents challenges in both its diagnosis and management. This review appraises available literature on the definition, prevalence and management of cancer related breakthrough pain.

Methods: An electronic search of Medline (1996–2007), Embase (1996–2007) and the Cochrane Database of Systematic Reviews (Issue 2 2007) was performed. Only papers which studied breakthrough pain in a malignant setting were deemed eligible for inclusion. Results: 24 articles met the inclusion criteria. Breakthrough pain (that is not end of dose failure) can be subdivided into spontaneous or precipitated (incident) pain. 20–60% of breakthrough pain is spontaneous in nature with the frequency of breakthrough pain between 4–7 episodes per day (average duration of 15–30min). Breakthrough pain results in increased pain scores and increased pain intensity. Breakthrough pain interferes with general activity, ability to work and walking. Morphine remains the gold standard analgesic although its work to use in breakthrough pain is limited. Oral Transmucosal Fentanyl Citrate (OTFC) has been shown to be effective in cancer related breakthrough pain.

Conclusions: Currently strong evidence exists for oral transmucosal fentanyl citrate with less evidence existing for other fentanyl preparations and other opioids. This probably reflects the type of clinical trials funded to date rather than necessarily inherent superiority. A simplification of the term “breakthrough pain” into its component parts would facilitate meaningful discussion about epidemiology, clinical findings, management and research. We propose that the global term “breakthrough pain” should be only a functional term for describing any pain other than background pain. The components of breakthrough pain can be labelled as: end-of-dose failure, spontaneous pain at rest, movement-related pain and lastly pain related to a particular incident e.g. coughing, straining at stool etc.

Poster No*: 268

Type of presentation: Poster
Poster session: First Group 29 May Thursday, 10.30 to 30 May Friday 13.00
Category: Pain
Title: The role of transdermal buprenorphine in cancer pain treatment
Authors: Wojciech Leppert Chair and Department of Palliative Medicine Poznan University of Medical Sciences POLAND

Background: Recently buprenorphine is administered in transdermal form (Transtec®) in matrix patches. Methods: Patients and methods: Open, prospective, clinical study assessing analgesic efficacy and side effects of transdermal buprenorphine administered to patients with cancer pain. Transdermal buprenorphine was applied to 20 patients (11 men, 9 women) aged 35–74 (mean 59.5 ± 12.2) with severe cancer pain – over 6 in 11 – step numerical rating (NRS). The type of pain was nociceptive in 14 patients and neuropathic in 6 patients. 12 patients were opioid – naive and 8 opioid tolerant who received previously tramadol. The doses of transdermal buprenorphine were 35, 52,5 and 70 mcg per hour. In case of breakthrough pain 12 patients received buprenorphine in sublingual tablets (0.2 mg) and 8 patients tramadol in drops or immediate release capsules (dose range 50–100 mg). Results: The time of treatment 28.3 ± 17.1 (range 3–75) days. The starting dose was 35 mcg per hour, and the dose was increased in 13 patients: in 7 of them till 52.5 and in 6 gradually up to 70. In 13 patients good analgesia (pain intensity below 3 in NRS), in 3 patients partial effect (NRS 3–5), lack of analgesic effect in 4 patients with neuropathic pain (NRS over 5). 12 patients needed the rescue doses of sublingual buprenorphine (8 patients) or oral tramadol (4 patients). Side effects: 4 patients moderate constipation, 3 drowsiness (2 mild, 1 moderate), 2 nausea, 1 sweating, which was chronic but acceptable. In one patient redness was observed in the region of patch application. These symptoms did not cause buprenorphine treatment termination, respiratory depression was not observed. Conclusions: The use of transdermal buprenorphine in the patches in doses 35, 52.5 and 70 mcg per hour, allows to achieve satisfactory analgesia in majority of patients with nociceptive pain and in some patients with neuropathic pain of severe intensity. The tolerance of treatment was good without severe side effects.

Poster No*: 269

Type of presentation: Poster
Poster session: First Group 29 May Thursday, 10.30 to 30 May Friday 13.00
Category: Pain
Title: The role of methadone in cancer pain treatment – experience from Poland
Authors: Wojciech Leppert Chair and Department of Palliative Medicine Poznan University of Medical Sciences POLAND
Jacek Luczak Chair and Department of Palliative Medicine, Poznan University of Medical Sciences Poznan POLAND
Aleksandra Lemieczek Chair and Department of Palliative Medicine, Poznan University of Medical Sciences Poznan POLAND

Background: Methadone is a highly effective analgesic in the management of cancer pain. Prospective, clinical studies have shown that methadone is effective in the management of nerve pain above sensory motor neuron disease and nociceptive pain. It is usually effective when used in higher doses than used for addiction therapy. We present our experience from the prospective, randomized, open label, multicentre Polish study using methadone for neuropathic and nociceptive cancer pain.

Methods: In this study methadone was used as an additional analgesic in 14 patients and neuropathic in 6 patients. 12 patients were opioid – naive and 8 opioid tolerant who received previously tramadol. The doses of methadone were 35, 52,5 and 70 mg per hour. In case of breakthrough pain 12 patients received methadone in sublingual tablets (0.2 mg) and 8 patients tramadol in drops or immediate release capsules (dose range 50–100 mg). Results: The time of treatment 28.3 ± 17.1 (range 3–75) days. The starting dose was 35 mcg per hour, and the dose was increased in 13 patients: in 7 of them till 52.5 and in 6 gradually up to 70. In 13 patients good analgesia (pain intensity below 3 in NRS), in 3 patients partial effect (NRS 3–5), lack of analgesic effect in 4 patients with neuropathic pain (NRS over 5). 12 patients needed the rescue doses of sublingual buprenorphine (8 patients) or oral tramadol (4 patients). Side effects: 4 patients moderate constipation, 3 drowsiness (2 mild, 1 moderate), 2 nausea, 1 sweating, which was chronic but acceptable. In one patient redness was observed in the region of patch application. These symptoms did not cause buprenorphine treatment termination, respiratory depression was not observed. Conclusions: The use of transdermal buprenorphine in the patches in doses 35, 52.5 and 70 mcg per hour, allows to achieve satisfactory analgesia in majority of patients with nociceptive pain and in some patients with neuropathic pain of severe intensity. The tolerance of treatment was good without severe side effects.
**Background:** Open clinical study to assess analgesia and side effects of methadone and calculation of equianalgesic doses of oral morphine and methadone. **Methods:** Patients and methods: Methadone was administered to 31 patients with severe cancer bone and neuropathic pain because of inadequate analgesia (VAS > 5) (number of patients in brackets) on morphine (10), transdermal fentanyl (TF) (4), morphine, ketamine and TF (3), tramadol (3), pethidine (3), intense pain with drowsiness on morphine with ketamine (1) and strong pain with nausea on morphine (1). Dose ratios of daily doses of oral morphine (ddom) to daily dose of oral methadone (ddomet): 4:1 (ddom to 100 mg), 6:1 (ddom 100–300 mg), 12:1 (ddom 300–1000 mg), 20:1 (ddom over 1000 mg). Single dose of oral methadone did not exceed 30 mg regardless of ddom before methadone switch. Previous opioids were stopped completely in 19 patients and 2 patients were treated concomitantly with methadone and other opioids. Mean equivalent ddom before methadone switch 812 ± 486 mg. Methadone administered regularly 3 times a day, 20 patients received oral methadone, 1 rectally in suppositories. Breakthrough pain treated with methadone (half of regular dose), morphine, fentanyl, metamizol and ketamine. **Results:** Methadone treatment lasted 38.3 ± 27.1 (range 3–95) days, daily dose range 9–400 mg, mean daily doses 48.1 ± 19.7 at beginning, maximal 148.5 ± 104.1, and 131.1 ± 104.3 mg at the end of methadone treatment. Good analgesia (NRS ≤ 4) 11 patients, partial (NRS 4–5) 8, unsatisfactory 2 (NRS > 5) who stopped methadone. Side effects: drowsiness (6 patients), constipation (4), nausea and vomiting (2), one respiratory depression probably due to methadone and alprazolam interaction disappeared after naloxone administration and methadone cessation. **Conclusions:** Results of the study confirmed high analgesic efficacy, good adverse event profile of methadone and effectiveness of morphine to methadone dose calculation.

**Poster N°: 270**

**Type of presentation:** Poster
**Poster session:** First Group 29 May Thursday, 10.30 to 30 May Friday 13.00
**Category:** Pain
**Title:** The role of pamidronate in the treatment of pain in advanced cancer patients with bone metastases

**Authors:** Wojciech Leppert Chair and Department of Palliative Medicine Poznan University of Medical Sciences POLAND
Wojciech Rolski Head and Neck Cancer Department, Maria Sklodowska-Curie Memorial Cancer Center Institute of Oncology Warsaw POLAND

**Background:** One of the important group of drugs that can inhibit development of bone destruction and possessing analgesic effects are bisphosphonates. The aim of the study was to assess the usefulness of the bisphosphonates (pamidronate) in the treatment of cancer pain in patients with bone metastases. **Methods:** Patients and methods: 50 advanced cancer patients with osteolytic bone lesions and bone pain of severe intensity – over 6 in 11-point categorical scale. Patients were treated with 2–hours intravenous infusion of pamidronate (Pamifos® and Aredia®) in the dose 30–90 mg in 500 ml 0.9% NaCl, every 3–4 weeks. All patients apart from the pamidronate were treated with other analgesics. **Results:** In 38 patients good analgesic effect was achieved (at least 2 points decrease of pain intensity) or less than 4 in categorical scale. In 6 patients partial effect (at least 1 point decrease of pain intensity) or 4–5 on categorical scale. In 6 patients no therapeutic benefit was achieved. The tolerance of the treatment was good with no severe side effects. The most common adverse reactions were temporary fever (10 patients), headache (4), intensifying bone pain (3). These symptoms did not cause cessation of pamidronate treatment and disappeared within 1 day without treatment. Local reactions appeared in 3 patients, in 5 patients asymptomatic decrease of calcium level in blood serum and in 3 patients increase of creatinine level in serum were observed. **Conclusions:** Pamidronate administered to patients with advanced cancer and with osteolytic lesions as intravenous infusion every 3–4 weeks in the dose of 30–90 mg is effective in the treatment of bone pain when combined with other analgesics and other methods of cancer treatment. The treatment was well tolerated with no serious adverse reactions.

**Poster N°: 272**

**Type of presentation:** Poster
**Poster session:** First Group 29 May Thursday, 10.30 to 30 May Friday 13.00
**Category:** Pain
**Title:** Heart rate variability in relation to pain intensity during flexible sigmoidoscopy: a pilot study.

**Authors:** J.J. Meese Internal Medicine, Section of Palliative Medicine University Medical Center Groningen NETHERLANDS
J.J. Koornstra Department of Gastroenterology, University Medical Center Groningen NETHERLANDS
Poster N°: 273

Type of presentation: Poster
Poster session: First Group 29 May Thursday, 10.30 to 30 May Friday 13.00
Category: Pain
Title: Morphine dosing in breakthrough cancer pain in patients on transdermal fentanyl
Presenting author: Monika Lichodziejewska-Niemierko
Authors: Aleksandra Modlińska Department of Palliative Medicine Medical University of Gdańsk POLAND
Łukasz emojtel Medical University of Gdańsk, Department of Emergency Medicine Gdańsk POLAND
Monika Lichodziejewska – Niemierko Medical University of Gdańsk, Department of Palliative Medicine Gdańsk POLAND

Background: The WHO analgesic ladder is recommended for chronic pain control. For more than 10 years transdermal fentanyl has been existing on its third step as very efficient in cancer pain management. Although most cancer patients attain good pain relief, many suffer from breakthrough pain.

Methods: Before and during 71 flexible sigmoidoscopy procedures a complete registration of heart beat intervals was obtained with the portapress (computerised beat-to-beat blood pressure registration using a cuff, applied to the right middle finger). From this dataset HRV parameters were calculated. Also the pain intensity before and during the endoscopy was quantified with a VAS (0–100 mm scale). The Spearman’s correlation coefficient (r), between VAS and HRV parameters was calculated. Results: During sigmoidoscopy the VAS was correlated with SDNN (r=0.348, p=0.003), TP (r=-0.334, p=0.004), LF (r=-0.28, p=0.018) and HF (r=-0.27, p=0.023), but not with LF/HF (r=-0.059, p=0.626). The positive correlations suggest increased sympathetic and parasympathetic tonus during pain. No evidence of a relative increase in sympathetic tonus was found. Conclusions: During sigmoidoscopy there is a correlation between pain intensity measured with VAS and HRV parameters, especially the SDNN.

Poster N°: 274

Type of presentation: Poster
Poster session: First Group 29 May Thursday, 10.30 to 30 May Friday 13.00
Category: Pain
Title: Evaluation of pain control in patients with bone metastases or multiple myeloma in Zoledronic acid therapy. Observational clinical study
Authors: Luigi Montanari Oncology Civil Hospital Umberto F ITALY
Laura Amaducci Oncology Faenza(R) ITALY
Davide Tassinari Oncology Dept. Rimini ITALY
Marco Maltoni hospice for limpopoli (Fc) ITALY
Toni Ibrahim Romagna Institute For Tumor Research And Care (IRST) Meldola (Fc) ITALY

Background: Pain associated with metastatic bone disease is present in 70% of oncologic advanced patients, reduced quality of life and performance status of patients. Zoledronic acid is a bisphosphonate recommended in treatment of skeletal complications, reduced calcemia and pathologic fractures. The primary endpoint was evaluation of pain control and analgesic use, the secondaries endpoints were evaluation of quality of life and tolerance.

Methods: Eligible patients with histologic diagnosis of Carcinoma or Multiple Myeloma, at least one bone metastasis with radiological diagnosis, bone pain, prevision survival at least 6 months, written informed consent. Treatment: Zoledronic acid 4 mg administered as a 15 minutes infusion in 100 cc of normal saline every 4 weeks. Pain was assessed with Brief Pain Inventory (B.P.I.) and Analgesic Score. Evaluation of Quality of Life was investigated with questionnarie FACT-G. Centres participantes were the Institutions of Medical Oncology and Palliative Care of Oncological Institute of Romagna (I.O.R.): Forlì, Lugo, Rimini, Faenza, Ravenna, Cesena. Results: 66 patients are enrolled age range 37–86 years, median 68 years, 92% with multiple bone metastases, 36% with lytic metastases. At baseline 48.8% of patients required opioids to control pain but 39% at the end of treatment; analgesic score mean decreased by 3 to 2. 42 patients are evaluated for BPI, performed at baseline and at the end of treatment: median baseline BPI was 13 (range 0–26) and the final median BPI was 11 (range 0–27). Overall BPI was significantly decreased in 64.3% of patients. Evaluation of quality of life investigated with questionnarie FACT-G is ongoing. Conclusions: Zoledronic acid in this study appears to be effective in bone pain control and is well tolerated (no cases of osteonecrosys of jaw).

Poster N°: 275

Type of presentation: Poster
Poster session: First Group 29 May Thursday, 10.30 to 30 May Friday 13.00
Category: Pain
Title: Prolonged-release oxycodone/naloxone is effective and safe in clinical use
Authors: Thomas Nolte Palliative Care Schmerz– und Palliativzentrum GERMANY
Background: The prolonged-release oxycodone/naloxone* combination prevents one of the most common side effects of opioid therapy, opioid-induced constipation without reducing analgesic efficacy. A multicentre observational trial studied the efficacy and safety of a fixed oxycodone/naloxone combination in clinical use in several thousand patients. Methods: In the 4-week observational study, data was recorded at four assessment times (begin followed by 1st, 2nd and 3rd visit after one, two and 4 weeks respectively), the 2nd of which was optional. Efficacy of oxycodone/naloxone was measured by change in pain intensity (NRS, 0–10 = no pain – worst imaginable pain) and quality of life using the overall score (0–70 = no limitation – worst limitation) of the 7 usual parameters. Bowel function was assessed using the arithmetic mean of the following three parameters: ease of defecation (0–100 = no difficulty – worst difficulty), sensation of incomplete bowel evacuation and assessment of constipation (0–100 for each = none – very severe). At trial completion, doctors and patients assessed efficacy and tolerance. Results: 7836 patients with severe and very severe chronic pain of different gene-
test took part. More than 80% assessed tolerance of oxycodone/naloxone compared to previous treatment (predominantly analgesics at times coanalgesics) as “very good” and “good”. At treatment initiation, most patients received 2 x 10/5 mg oxycodone/naloxone. Pain reduced signifi-
cantly during treatment. Bowel function and quality of life improved markedly. In the final assessment, the vast majority of doctors and patients assessed efficacy and tolerance as “very good” and “good”. Conclusions: The fixed oxycodone/naloxone combination proved effective and safe clinically in several thousand patients with severe and very severe pain of different 

Poster N°: 276

Type of presentation: Poster
Poster session: First Group 29 May Thursday, 10.30 to 30 May Friday 13.00
Category: Pain
Title: Opioid Prescribing in Cancer Pain: The WHO guidelines 20 years on
Authors: Dominic Ó Brannagáin Specialist Palliative Care Our Lady of Lourdes Hospital IRELAND
Gráinne Keating Our Lady of Lourdes Hospital, Drogheda IRELAND
Faith Cranfield Our Lady of Lourdes Hospital, Drogheda IRELAND
Helen Heery Our Lady of Lourdes Hospital, Drogheda, IRELAND
Elaine Conyard Our Lady of Lourdes Hospital, Drogheda IRELAND

Background: An individualised balanced analgesic regimen is the main-
stay of cancer pain management. Opioids are the principal analgesic used. The WHO Guidelines for Cancer Pain2 is the gold standard. This study assessed whether these guidelines were being followed in clinical practice in a teaching hospital, twenty years after their introduction.
Methods: A retrospective cohort study was undertaken of opioid 
apaeregic prescribing of all consecutive discharges of patients with a cancer diagnosis for a four month period. Exclusion criteria were non-cancer pain, chart unavailable, prn opioids only. An audit tool, using 18 standards of good practice, enquiring into route, frequency, choice of drug, dose and titration was developed. A variance of greater than 15% resulted in non-compliance may be improved.

Poster N°: 277

Type of presentation: Poster
Poster session: First Group 29 May Thursday, 10.30 to 30 May Friday 13.00
Category: Pain
Title: Examination of Cancer Pain Management in Children
Authors: Gill O’Callaghan Pain Management Our Lady’s Children’s Hospital IRELAND

Background: Pain is a significant and much feared symptom for children undergoing cancer therapy with many studies reporting that around 60% of childhood cancer patients experienced pain as a presenting symptom. This survey aimed to collect data on pain management and assessment in recent-
ly hospitalised children with cancer pain and to outline directions for improved care, future audit and research. Methods: A repeated measures prospective survey of children’s cancer pain was conducted on admission to a national tertiary referral children’s cancer centre. A questionnaire was used to gather data from children or their parents, regarding their experiences with pain assessment and management at T1, on admission; and again within 48 hours, T2: Results: Over 4 months, 65 interviews involving 40 chil-
dren, 18 months to 17 years were carried out. At T1, 62% of children expe-
rined pain, mean pain score 6 (0, no pain, 10 worst pain). This decreased significantly, by T2 (p<0.001). At T1, 97% of charts failed to meet the standard for documentation of all the core elements of assessment of cancer pain. Children’s mood, reports of comfort and satisfaction with analgesics improved at T2 when pain was controlled. Failure to recognise or believe children’s reports of pain; fears and misconceptions around opioid anal-
gesics; and lack of knowledge about pain control was shown to be an obsta-
cle to effective pain management. Analysis of the strategies children employed for managing pain revealed 5 themes: behavioural avoidance, behavioural and cognitive distraction, emotional expression, and social support. Three themes for improving pain management emerged: Identify and acknowledge children’s pain; decision making and pain management; Interpersonal and organisational factors affecting pain management. Conclusions: This survey demonstrated that pain is a feature of childhood cancer and effective pain control remains a clinical problem. Further educa-
tion and research is required into children’s cancer pain management.

Poster N°: 278

Type of presentation: Poster & poster discussion session
Poster session: First Group 29 May Thursday, 10.30 to 30 May Friday 13.00
Category: Pain
Title: Effect of topical morphine (mouthwash) on pain due to chemo–
and/or radiotherapy induced mucositis: a randomized double blind study
Authors: Sophie Pautex Rehabilitation and geriatrics Service of palliative medicine
Coztcteats. University Hospital Geneva Geneva SWITZERLAND
Abdelkarim Allal Service of Radiotherapy Geneva University hospital Geneva SWITZERLAND
Petra Bossert Internal Medicine Lucerne SWITZERLAND
Monica Escher Service of Pharmacology and toxicology Geneva University hospital Geneva SWITZERLAND

Background: The prolonged-release oxycodone/naloxone combination proved effective and safe clinically in several thousand patients with severe and very severe pain of different gene-
test took part. More than 80% assessed tolerance of oxycodone/naloxone compared to previous treatment (predominantly analgesics at times coanalgesics) as “very good” and “good”. At treatment initiation, most patients received 2 x 10/5 mg oxycodone/naloxone. Pain reduced signifi-
cantly during treatment. Bowel function and quality of life improved markedly. In the final assessment, the vast majority of doctors and patients assessed efficacy and tolerance as “very good” and “good”. Conclusions: The fixed oxycodone/naloxone combination proved effective and safe clinically in several thousand patients with severe and very severe pain of different 
Pavel Dulguerov Service of ORL and Cervico-Facial Surgery Geneva University Hospital Geneva SWITZERLAND
Caroline Gilbert de Vautibault Dpt Rehabilitation and Geriatrics, University Hospital Geneva Geneva SWITZERLAND
Jules Desmeules Service of Pharmacology and toxicology Geneva University Hospital Geneva SWITZERLAND

Oral pain due to mucosal lesion is frequent in oncology mainly secondary from radio- and/or chemotherapy induced oral mucositis. No single product has shown to be efficient in preventing oral mucositis induced by chemo- or radiotherapy. The objective of the study is to demonstrate that mouthwashes with a morphine containing solution decrease oral pain substantially, while not causing the side effects of systemic opioids administration.

Methods: Randomized double-blind cross-over study to evaluate the effect of topical oral application of 0.2% morphine solution in patients suffering from radio- and/or chemotherapy induced oral mucositis. Participants assigned to either the morphine solution or a placebo mouthwash received one of the solutions days 1–3 and were then switched over to the other treatment for days 4–6. Basic oral care was offered to all patients.

Preliminary Results: Nine patients were randomised in both groups. All patients (mean age 55±9.05) but one had head and neck cancer. All patients had oral pain (mean pain intensity on ten point VAS: 6 ± 2.7) associated with mucosal injury (WHO mucositis ?2) secondary to chemotherapy (cisplatine) and for 6 patients concomitant radiotherapy. 6 patients received first level analgesia; 3 patients received oral opioids medications. Pain intensity decreased significantly in both groups after mouthwash. The mean difference in pain intensity one our after mouthwash was 1.8±0.42 when patients received morphine solution and 1.6±0.41 when patients received placebo. Systemic analgesic treatment was identical during 6 days of the study. Conclusions: Both morphine and placebo mouthwash resulted in significant symptom improvement. Longer study duration is justified.

Poster N°: 280

Type of presentation: Poster
Poster session: First Group 29 May Thursday, 10.30 to 30 May Friday 13.00
Category: Pain
Title: Clinical experience with transdermal buprenorphine for the treatment of moderate-severe pain in palliative care: a prospective, observational, multicenter study
Presenting author: Annette Welshmann
Authors:
Francesca Bordin Palliative Care Unit Fondazione Sac Ryder Onlus ITALY
Piero Morino FILE Firenze ITALY
Massimiliano Cardinalli Fondazione Sac Ryder ONLUS Roma ITALY
Gianluigi Zeppetella UOCP San Sebastiano Caserta ITALY
Luigi Galli Hospice “Villa Rosa” Viterbo ITALY
Carmine Travaglini Hospice “Madre Teresa di Calcutta” Larino (CB) ITALY
Giovangiorgio Zappi Hospice ARNAS Palermo ITALY
Erasmo Vassallo SAMOT Onlus Palermo ITALY
Adriana Turritizzi Hospice Oncologico “Villa Speranza” Roma ITALY
Stefano Giordani Hospice Casaluccio di Reno Casaluccio di Reno (BO) ITALY
Annette Welshmann Fondazione Sac Ryder ONLUS Roma ITALY

Background: Transdermal buprenorphine (TDB) is currently available in matrix patches with release rates of 35, 52.5, and 70 g/h for a three to four-day duration. TDB has been shown to be effective in chronic, severe pain in 3 multicenter randomized trials. Objective: Aim of this prospective, multi-center, observational study was to collect effectiveness, safety and usefulness data of TDB in daily palliative care practice. Methods: 153 patients with moderate to severe cancer pain in home (68%), hospice (25%) and outpatient PC setting were enrolled; TDB was prescribed at physicians’ discretion. Primary outcome measure was pain relief using regular NRS (0–10) assessment; statistical analysis was performed including grouping factors such as sex, type of pain, previous treatment. Other analyses assessed sleep improvement, side effects, compliance and satisfaction for drug and transdermal route by patient, caregiver and investigators, evaluated via descriptive analyses and verbal scales. Results: Average age of patients was 71.5 years; at baseline mean Karnofsky PS was 41 (10.7 SD) and mean pain intensity NRS 5,85 (1.83 SD). To date, only statistical analysis of recent data from the last 7 pts’ follow up is ongoing, and results are almost final. Mean follow up was 42.4 days (range 1–333, median 32). Reduction in pain intensity was mean 62.5% at T1 (after 2 weeks), and 59.5% at the last visit; TDB was “effective-very effective” for 80%, and tolerability was “good-very good” for 100%; sleep disturbance (as “very disturbed sleep”, “with frequent awakening”) decreased from 80% to 25%. Withdrawal rate due to adverse events was 9%; 8% of pts discontinued treatment owing to unsatisfactory pain relief. Compliance was reported as “good-very good” by 98% of pts, and 99% both of caregivers and professionals. Conclusions: TDB seems to be well tolerated and effective in the treatment of moderate to severe cancer pain in all palliative care setting.
Poster N°: 281

Type of presentation: Poster
Poster session: First Group 29 May Thursday, 10.30 to 10 May Friday 13.00
Category: Pain
Title: Transfusion-induced opioid requirements: Results of a first clinical study and its consequences
Authors: Cristina Tamasdan Pain and Palliative Care Memorial Sloan-Kettering Cancer Center U. STATES
Amanda Weyerbacher Well Cornell Medical College New York U. STATES
Eugenie Obbens Memorial Sloan-Kettering Cancer Center New York U. STATES
Charles Inturrisi Weill Cornell Medical College New York U. STATES
Natalie Moryl Memorial Sloan-Kettering Cancer Center New York U. STATES

Background: Cancer patients who have anemia are required to have blood transfusion to palliate the symptoms of fatigue or dyspnea. The WHO found that 77% of men and 68% of women admitted to a hospice had anemia of chronic disease. This retrospective study looked at the posttransfusion pain scores and opioid intake in patients with chronic malignant pain who received red blood cell (PRBC) transfusion. Methods: 17 consecutive patients with unresectable cancer received PRBC transfusion concurrent with an opioid delivered by patient controlled analgesia (PCA). Patients were receiving morphine (n=6), fentanyl (n=5) or hydromorphone (n=6) and the corresponding opioid was continued posttransfusion. Data on hemoglobin, pain assessment using verbal analog scale (VAS), PCA opioid intake and survival were abstracted from patient’s medical records. Differences in pain scores and PCA opioid intake were determined using a paired Student’s t-test or the Wilcoxon signed rank-sum test with p<0.05 considered significant. Results: A significant increase in each patient’s pain score occurred after transfusion. The pre-transfusion mean pain score of 3.9 (+/- SD) (1.7) increased to a mean of 5.2 (2.6). The mean percent change of opioid intake was also significantly increased. The increase was 2-fold for morphine, 3-fold for hydromorphone and 4-fold for fentanyl. This survey revealed that following the 4 hr post-transfusion, pain was significantly increased and 24 hr after transfusion the opioid requirements for each patient was significantly increased. 35% of the patients died within 7 weeks posttransfusion. Conclusions: Palliative care clinicians face difficult decision when challenged with patients that are anemic and need blood transfusion to palliate their symptoms. Although offering to transfuse blood appears a logical strategy, we have shown that transfusion increased post-transfusion opioids due to increase in pain score. Therefore, PRBC transfusion may in fact dictate more aggressive approaches to pain management.

Poster N°: 282

Type of presentation: Poster
Poster session: First Group 29 May Thursday, 10.30 to 30 May Friday 13.00
Category: Pain
Title: Transdermal Opiates (TO) in the treatment of Moderate-Severe Cancer Pain (MSCP). Systematic review of literature
Presenting author: Emanuela Scarpi
Authors: Davide Tassinari Oncology City Hospital ITALY
Marco Maltoni Hospice and Palliative Care Unit Forlì ITALY
Carlo Santelmo Supportive and Palliative Care Unit Rimini ITALY
Emanuela Scarpi Hospice and Palliative Care Unit Forlì ITALY

Background: Although oral morphine (OM) represents the treatment of choice in front-line approach against MSCP, in Europe the most part of clinicians are preferring TO (mainly transdermal fentanyl) to OM as front line approach. As a better safety profile has been hypothesized to support this kind of attitude, a systematic review of literature with meta-analysis comparing side effects of TO and OM has been recently completed by our group. Methods: A systematic review of the literature in the MEDLINE and EMBASE data bases from 1966 to June 2007 was independently performed by two authors. All phase III randomized trials comparing TO and slow release oral morphine (SROM) in the treatment of MSCP were considered eligible and included in the analysis. The primary end point was the overall adverse effects odds ratio (OR); secondary end points were the overall gastrointestinal adverse effects, constipation, nausea, somnolence, patients’ preference, and trial withdrawal. Heterogeneity was analysed using the Mantel-Haenszel test, and outcome analysis was performed using a random effect model; an alpha error lower than 5% was assumed as statistically significant. Results: Four trials met the selection criteria. The safety of TO (fentanyl and buprenorphine) and SROM was analysed in 425 patients. A significant difference in favour of TO was observed for constipation (OR=0.38, p<0.001), and patients’ preference (OR=0.43, p=0.014, in the 3 trials investigating transdermal fentanyl). No significant differences were observed for overall adverse effects, overall gastrointestinal adverse effects, overall neurological adverse effects, nausea, somnolence, hypoverntilation, trial withdrawal and changes in opioid treatments. Conclusions: Although no difference in the overall adverse effect profile exists between TO and SROM, the difference in some adverse effects (mainly constipation) seems to favour TO in the preference of patients with MSCP.

Poster N°: 283

Type of presentation: Poster & poster discussion session
Poster session: First Group 29 May Thursday, 10.30 to 30 May Friday 13.00
Category: Pain
Title: Efficacy and safety of intrathecal Ziconotide (Z) in adults with severe chronic pain. Pooled analysis of Randomized Clinical Trials (RCTs)
Presenting author: Emanuela Scarpi
Authors: Davide Tassinari Oncology City Hospital ITALY
Marco Maltoni Hospice and Palliative Care Unit Forlì ITALY
Carlo Santelmo Supportive and Palliative Care Unit Rimini ITALY
Emanuela Scarpi Hospice and Palliative Care Unit Forlì ITALY

Background: Z is a new nonopiod intrathecal agent recently approved for the treatment of chronic pain. Z is indicated for the management of severe chronic pain in patients for whom intrathecal therapy is warranted and who are intolerant of or refractory to other treatment, such as systemic analgesics, adjunctive therapies or intrathecal morphine. Z is a potent analgesic with a narrow therapeutic window, and its efficacy and safety has been demonstrated in 3 RCTs. We present the preliminary data of a pooled analysis about efficacy and safety of Z when compared with placebo. Methods: A pooled analysis of the 3 RCTs (trials 95–001, 96–002, 301) has recently completed. Pain relief was the primary end point of the analysis, overall safety, the secondary one. Pain relief was assessed as pain reduction,T30% using the Visual Analogue Scale of Pain Intensity; safety was assessed as the absolute risk of Any Side Effect (ASE), Severe Side Effect (SSE), and neurological side effects [Confusion (C), Dizziness (D), Nystagmus (N) and Abnormal Gait (AG)]. The pooled analysis was performed using a random effect model; an alpha error lower than 5% was assumed as statistically significant. Results: 588 patients were enrolled in the 3 randomized trials; 354 patients were treated with intrathecal Z and 234 with placebo. A significant improve in pain relief was observed for Z (odds ratio=2.7, p=0.004), with an absolute risk of side effects of +17% for ASE (p=0.008), +10.4% for C (p<0.001), +37.2% for D (p<0.001), and +17.1% for AG (p<0.001). No significant differences in the absolute risk of side effects were observed for SSE (+9.1%, p=0.164) and N (+18.6%, p=0.087). Conclusions: Intrathecal Z is a potent analgesic with a narrow therapeutic window. Further trials are probably needed to better define both the classes of patients to be treated with Z and the kind of titration to reduce acute side effects and improve the outcome of the treatment.
Poster N°: 284

Type of presentation: Poster
Poster session: First Group 29 May Thursday, 10.30 to 30 May Friday 13.00
Category: Pain
Title: Optimizing the control of severe cancer pain: Add On Therapy in stead of rotation of strong opioids
Authors:
Johan Van den Eynde Waasland Network Palliative Care BELGIUM

Background: Most guidelines tell us to avoid the combination of strong opioids because of possible antagonism. Searching in pharmacological literature we found lot of arguments to combine opioids in order to get an additive effect. Aim: to evaluate the effect of the combination of two opioids with a different MOR agonistic spectrum –Buprenorphine TTS (BUP TTS) and Fentanyl TTS (FEN TTS)- on pain scores in patients with severe cancer pain. Secondary: evaluation of the slope index of the opioid dose curve. Methods: Cancer patients were treated with FEN TTS. The dose was up titrated in proportion to the pain score. When the normal increase of dose did not give the expected decrease in pain score, we didn’t rotate to an other opioid, but FEN TTS was diminished to the previous dose (=inclusion dose) and BUP TTS was added in an equivalent dose.

Results: 7 pts are already included an evaluated, a larger recruitment is ongoing. Starting doses FEN/BUP varied from 25µg/17.5µg to 200µg/105µg (av. 65/42.5). Doses FEN/BUP at study end varied from 25µg/17.5µg to 200µg/140µg (av.67.9/52.5). Observation period varied from 3 to 20 wk (av.10wk). Pain scores could be kept under 3, by titrating the doses of BUP: 24% doses increase. Conclusions: instead of the general belief that combination of strong opioids is to be avoided, we find no clinical evidence of antagonism, but we find an better pain control by combining two opioids with a different spectrum. There was a longer steady state without up titration of the doses. This opens new possibilities to treat severe cancer pain. More research is needed, so this abstract is a call for other investigators to set up a trial to optimize the combination and conversion rate.

Poster N°: 285

Type of presentation: Poster
Poster session: First Group 29 May Thursday, 10.30 to 30 May Friday 13.00
Category: Pain
Title: A prospective, observational study about the efficacy and safety of buprenorphine-patch in the case of patients with cancer pain
Authors:
Bart Van den Eynde Centre for General Practice, Interdisciplinary Car University of Antwerp BELGIUM
Annick Vanderoost Centre for Palliative Care ‘Sint-Camillus’ Antwerp BELGIUM
Elis Pauwels Centre for Palliative Care ‘Sint-Camillus’ Antwerp BELGIUM
Peter Demedenaere Centre for Palliative Care ‘Sint-Camillus’ Antwerp BELGIUM

Introduction: Neuropathic (cancer) pain remains difficult to understand as well as to treat. Most opioids are not able to relieve neuropathic pain effectively. Most of the time co-analgesics or even invasive pain relieving techniques are needed. Nevertheless the characteristics of buprenorphine, a semi- synthetic opioid drug, are promising in order to relieve neuropathic pain. Research question: What is the efficacy and safety of the use of buprenorphine-patch to relieve cancer pain, especially in the case of neuropathic or mixed (nociceptive-neuropathic) pain? Methodology: The choice fell on a prospective, observational, non-interventional study design including about 30 patients with cancer pain who need step 3 pain medication. There is no randomization or selection but patients will be informed and asked to sign an informed consent document. For pain relief patients will receive a buprenorphine patch. Further titration and increase of the dose will be based on the evolution of the pain; for incidental and breakthrough pain immediate release morphine will be proposed. Besides demographic and diagnostic characteristics, pain and other symptoms will be registered. There will also be a specific registration of (possible) neuropathic characteristics of the pain by means of the LANSS-pain scale (Leeds Assessment of Neuropathic Symptoms and Signs) and of side effects and unwanted phenomena. The study design was approved by the Ethical Committee. Results: 30 patients were included, 15 men and 15 women, with a mean age of 73.2 years (range 39–85). 28 (93.3%) patients were diagnosed with a primary tumour, 16 (53.3%) had metastases. By using the LANSS-scale, 16 (53.3%) patients were suffering from an important neuropathic pain component. The mean pain intensity at the beginning of the study was 7.50 (VAS), 5.95 after 2 days of application of buprenorphine patch and 2.81 at the moment of final evaluation (0=no pain, 10= worst pain). When comparing the group of patients with a major neuropathic pain component with the group of purely nociceptive pain statistical analysis shows a significantly higher relief of the pain in the group with neuropathic pain, after 2 days and after 10 days of therapy. After 4 weeks the difference between these 2 groups remains but is statistically not significant anymore. Conclusion: We conclude that the application of buprenorphine patch improves the pain and the comfort of all types of cancer pain. This improvement is statistically the most distinct in the case of patients with a major neuropathic pain component, especially in the first weeks after starting this therapy.

Poster N°: 286

Type of presentation: Poster
Poster session: First Group 29 May Thursday, 10.30 to 30 May Friday 13.00
Category: Pain
Title: BEMA™ (BioErodible MucoAdhesive) Fentanyl Demonstrates a Favorable Pharmacokinetic (PK) Profile Compared to Oral Transmucosal Fentanyl Citrate (Actiq®) in Healthy Volunteers
Authors:
Niraj Vasisht Clinical Development BioDelivery Sciences International U. STATES
Jeffrey Stark CEDRA Corporation Austin, TX U. STATES
Andrew Finn BioDelivery Sciences International Raleigh, NC U. STATES

Background: Oral transmucosal delivery of fentanyl is a rapid and proven route of administration for breakthrough pain in cancer patients. However, variability in fentanyl PK has been observed with the use of Actiq®, which is attributed to several uncontrolled factors including patient mouth surface area, patient diligence in the application process, and the amount of swallowed fentanyl. BEMA™ Fentanyl consists of a small, bilayered, water erodible polymer unit that adheres to the oral mucosa and rapidly delivers fentanyl into the systemic circulation through a defined surface area. Methods: A total of 12 healthy volunteers received single 800µg doses of three BEMA™ fentanyl citrate formulations (pH 6.0, 7.25, 8.5) and Actiq® 800µg at 48-hour intervals in an open-label, four-period, Latin-square, crossover study. Serial blood samples for fentanyl analysis were collected over a 48 hours after each dose. Results: Plasma fentanyl concentrations were greater and observed earlier with all formulations of BEMA™ Fentanyl than with Actiq®; the pH 7.25 formulation had the best profile. Compared to Actiq®, peak plasma fentanyl concentrations with BEMA™ Fentanyl pH 7.25 occurred earlier (median Tmax 1.0 vs. 2.0 hr and mean TFirst 9.0 vs. 13.2 min) and were significantly higher (mean Cmax 1.67 vs. 1.03ng/mL, p<0.05). Overall exposure was also greater with BEMA™ Fentanyl than with Actiq® (mean AUCinf 14.5 vs. 10.3hr•ng/mL). BEMA™ Fentanyl units adhered to the oral mucosa within 5 seconds of application and dissolved in less than 30 minutes without irritation. Conclusions: All three BEMA™ Fentanyl formulations provided faster absorption, higher maximum plasma concentrations and greater systemic exposure to fentanyl compared to Actiq®, the pH 7.25 BEMA™ Fentanyl formulation offered the best profile.
Poster N°: 287

Type of presentation: Poster
Poster session: First Group 29 May Thursday, 10.30 to 30 May Friday 13.00
Category: Pain
Title: Pattern of Opioid Use in a Palliative Care Unit (PCU) in Argentina
Presenting author: Jorge Etschenschas
Authors:
Ernesto Vignaroli Palliative Care Unit Hospital Tornà-Fundación FEMEBA ARGENTINA
Guillermo Mammana Hospital Tornà-Fundación FEMEBA Buenos Aires ARGENTINA
Mariela Bertolino Hospital Tornà-Fundación FEMEBA Buenos Aires ARGENTINA
Pablo Pelayes Hospital Tornà-Fundación FEMEBA Buenos Aires ARGENTINA

Background: Opioid analgesics are the mainstay of therapy for cancer-related pain. Although morphine is usually considered the preferred drug for the treatment of severe cancer pain, other opioids like fentanyl and methadone have been increasing in the last years. Methods: Retrospective review of the number and type of opioid used, duration of treatment, MEDD at the beginning and end of treatment, need of opioid rotation and route of administration. Results: 107 patients were recorded. 97 (91%) received opioid treatment. At first consultation: 60% were opioid naive, 26% were receiving weak opioids and 11% strong opioids; methadone was prescribed in 40% patients, morphine in 22%, weak opioids in 16% and 16% none. Initial median MEDD was 37.5 mg (Q25: 20mg-Q75: 75mg). Initial route of administration was 87% oral and 12% SC. At the end of follow up: 31% received methadone, 40% morphine, 7% fentanyl y 9% none, with a final median MEDD of 40 mg (Q25: 20mg-Q75: 75mg). Final route of administration was 57% oral and 35% SC. 61 opioid rotations were done in 40 patients. The main reasons were possible opioid induced toxicity in 77% and change in route of administration in 20%. Conclusions: Almost all of our patients received opioid treatment during the course of their disease. Methadone was the opioid of choice at the beginning of the follow up and morphine the most used at the end, mainly due to the need of change in the route of administration. Opioid doses at the beginning and the end were similar and low in most of the patients. The main reason of opioid rotation was uncontrolled pain with possible opioid induced neurotoxicity.

Poster N°: 288

Type of presentation: Poster
Poster session: First Group 29 May Thursday, 10.30 to 30 May Friday 13.00
Category: Pain
Title: A Characterisation Of Cancer Induced Bone Pain (CIBP)
Presenting author: Angela Boyd
Authors:
John Walley Palliative Medicine Accord Hospice UNITED KINGDOM
Eleanor Clausen University of Edinburgh Edinburgh UNITED KINGDOM
Marie Fallon University of Edinburgh Edinburgh UNITED KINGDOM
Lesley Colvin University of Edinburgh Edinburgh UNITED KINGDOM
Gordon Murray University of Edinburgh Edinburgh UNITED KINGDOM
Barry Laird University of Edinburgh Edinburgh UNITED KINGDOM

Background: Cancer induced bone pain (CIBP) is a common cause of pain in patients with cancer. It often exists as a combination of background and breakthrough pain. This makes effective management a considerable clinical challenge. Clinical characterisation is fundamental to effective assessment, management and research of CIBP. To date, CIBP has not been formally characterised. Methods: Cross-sectional study in a sample of patients with CIBP attending a regional cancer centre. Patients completed the Brief Pain Inventory (BPI) and the Breakthrough Pain Questionnaire. These assessed pain in the preceding 24 hours. Breakthrough pain was defined as spontaneous pain at rest, and spontaneous pain on movement or other event; on top of background pain. Results: 72 patients completed the study. 52 (72%) patients complained of breakthrough pain with a mean pain score of 7/10. Of these 52, 36 (69%) patients had breakthrough pain of less than 30 minutes duration. 30/52 (58%) patients had breakthrough pain of less than 15 minutes duration. 26/52 (50%) patients had severe, unpredictable breakthrough pain. Greatest impairment of function was associated with high BPI “worst pain” scores and intense and/or unpredictable pain flares.

Conclusions: This data supports the clinical dictum that the majority of breakthrough pain is of a short duration and may often be unpredictable. Oral opioids are therefore of limited value in breakthrough pain. “Worst” pain is most closely linked with function and therefore is a key assessment question. Further research is required to develop effective analgesia delivery systems which deal with the characteristics and time course of the pain flares that commonly affect patients with CIBP.

Poster N°: 289

Type of presentation: Poster
Poster session: First Group 29 May Thursday, 10.30 to 30 May Friday 13.00
Category: Pain
Title: Use of Lidocaine patches for poorly controlled neuropathic pain in patients with advanced cancer
Authors:
Clare White Palliative Medicine Northern Ireland Hospice Care UNITED KINGDOM
Barbara Cochrane Northern Ireland Hospice Care Belfast UNITED KINGDOM
Damien McMullan Northern Ireland Hospice Care Belfast UNITED KINGDOM
Julie Doyle Northern Ireland Hospice Care Belfast UNITED KINGDOM

Background: Lidocaine 5% patches (LP) have been reported to be useful in some non-malignant painful conditions e.g. post herpetic neuralgia. This case series reports the experience of the use of LP off label in patients with advanced malignant disease in a specialist palliative care unit (SPCU). Methods: A retrospective chart review of advanced cancer patients who were treated with LP in a SPCU was performed. All patients who had a LP initiation as an inpatient over a one year period were included, and are reported as a case series. Results: 15 patients were treated with LP for poorly controlled neuropathic pain. All patients were already on a combination of ‘strong’ opioids and adjuvant analgesics which did not provide sufficient analgesia. The response to treatment was assessed from documentation in the medical notes as no formal pain assessment scores had been used. 1 patient described excellent pain relief, 12 described fair to good pain relief and 2 had minimal or no pain relief with the addition of a patch. A range of 1–4 patches was used. The duration of application of patches ranged from 12–24 hours. All patients had normal or near normal renal function. No patients experienced skin irritation or other side effects. Conclusions: LP used as an adjuvant treatment can provide useful analgesia in patients with advanced cancer who have neuro-pathic pain which is difficult to control. While not effective in all patients, our experience is that useful analgesia can be achieved with a favourable side effect profile. More controlled prospective studies in this population are required to further evaluate this medication.

Poster N°: 290

Type of presentation: Poster
Poster session: First Group 29 May Thursday, 10.30 to 30 May Friday 13.00
Category: Pain
Title: Producing guidelines for opioid switching
Authors:
Kumaraja Wilkinson Palliative Medicine Trinity Hospice United Kingdom
Steven Wanklyn Guy’s & St Thomas’ NHS Foundation Trust, Trinity Hospice London United Kingdom
**Poster N°: 291**

**Type of presentation:** Poster

**Poster session:** First Group 29 May Thursday, 10.30 to 30 May Friday 13.00

**Category:** Pain

**Title:** Systematic review of the pharmacokinetics of commonly used rescue medication: implications for the management of breakthrough cancer pain

**Authors:**
- Giovambattista Zeppetella Clinical St Clare Hospice UNITED KINGDOM
- Brian Palphramand Acumen Healthcare Communications Ltd Basingstoke UNITED KINGDOM

**Introduction:** Opioids are traditionally used in the management of breakthrough pain (BTP), but their time to onset of action may not always be ideal. This systematic review aims to determine the pharmacokinetics (PK) of opioids commonly used as rescue medication and compares this to the usual time course of BTP. **Methods:** Pharmacokinetic studies of opioids in patients or healthy volunteers were identified from electronic databases and reference lists of retrieved articles; the final search was in September 2007. Inclusion criteria included published human data, normal-release opioids, non-invasive administration routes and presentation of PK data. **Results:** Electronic searching identified 2011 studies, of which 417 were duplicates and 1492 were excluded on reading the abstracts. Of the remaining 102 studies, 33 were excluded on reading the papers, leaving 69 studies reporting on 7 opioids: morphine (30 studies), fentanyl (17), hydromorphone (8), methadone (8), oxycodone (6), diamorphine (2) and alfentanil (1). Administration routes included oral (34 studies), buccal (15), rectal (12), intranasal (10), inhaled (6), sublingual (6), and transdermal (3); some studies reported multiple routes. Time to maximum plasma concentration (Tmax) varied across opioids and administration routes; morphine (2–420 mins), fentanyl (5–122), hydromorphone (20–90), methadone (7–225), oxycodone (25–348), diamorphine (7–114) and alfentanil (9). Preliminary analysis suggests inhaled, buccal and sublingual rescue may perform better as rescue medication than other non-invasive routes. Further analysis is underway, although complicated by different formulations, sampling methods, patient groups and reporting methods.

**Poster N°: 292**

**Type of presentation:** Poster

**Poster session:** First Group 29 May Thursday, 10.30 to 30 May Friday 13.00

**Category:** Palliative care in Children and Adolescents

**Title:** Parental decision-making about experimental and life prolonging treatment for children with incurable cancer

**Authors:**
- Ria De Korte Julius Center for Health/Nursing Sciences University Medical Center NETHERLANDS
- M.H.F. (Mieke) Grypdonck University Medical Center Utrecht Utrecht NETHERLANDS
- M.C. (Marijke) Kars University Medical Center Utrecht Utrecht NETHERLANDS
- I.M. (Hans) Van Delden University Medical Center Utrecht Utrecht NETHERLANDS

**Background:** Parents of children with terminal cancer play an important role in making decisions at the end of their child’s life, especially when the child stays at home. In the Netherlands each year 150 children die of cancer, 80 percent of whom at home. The research question is: How do parents make treatment-related decisions at the beginning of the palliative treatment of their child? **Methods:** Qualitative design: Grounded Theory Population: of 23 cases both parents (n=44) were interviewed one or more times, independently of each other. A total of 55 open in-depth interviews with parents were held; 40 during the palliative phase and 15 after the death of the child. A total 42 professionals, involved in the care of the cases under consideration, were interviewed. The interviews were audio taped and transcribed verbatim. **Results:** When (chemo)therapy aimed to cure the child fails, parents experience the transition from the curative to the palliative phase as overwhelming. In this transition the physician passes actorship to the parents and, in case the child is aged 12 or older, to the child as well. Parents have to choose whether or not to opt for life prolonging or experimental treatment. Anticipated regret, seeing death as a reality, fighting for life, the age of the child, and the opinion of the physician are important aspects of parental decision-making. When parents have a glimmer of hope they take for granted the physical burden but they tend to accept the disturbance it causes in their child’s life. When parents believe everything possible has been done and there is no hope for cure they choose either withholding treatment or life prolonging treatment with a minimum of burden to the child. **Conclusions:** In the transition from curative to palliative treatment the role of the parents changes. Professionals play a role in guiding the parents in this transition period so that they can make treatment-related decisions bearing in mind both the impending death of their child and living a good life.

**Poster N°: 293**

**Type of presentation:** Poster

**Poster session:** First Group 29 May Thursday, 10.30 to 30 May Friday 13.00

**Category:** Palliative care in Children and Adolescents

**Title:** Evaluation of a 200 hour multi professional course for paediatric palliative care (PPC) professionals in Germany

**Authors:**
- Wilma Henkel Vodafone Foundation Institute for Children’s Pain Children’s Hospital Datteln GERMANY
- Boris Zernikow Children’s Hospital Datteln Datteln GERMANY
- Susanne Herzog Children’s Hospital Datteln Datteln GERMANY

**Research Aims:** We aim: (a) to establish educational needs of professionals in PPC; (b) to determine the outcome of the PPC course with regards to the participants’ level of knowledge and self-confidence in paediatric palliative care. **Study population:** Sixteen participants who attended the four-week seminar in 2007 took part in the study. They came from a variety of profes-
sional backgrounds: ten nurses, three paediatricians and three psycho-social professionals working in different fields (hospital, hospice, community nursing team). Study design and methods: The study has a quasi-experimental design with pre-posttest measurement and is partly triangulated. We used two questionnaires (Paediatric Palliative Care Quiz [40 items], Self Report about Confidence and Educational Needs concerning the delivery of PPC [52 items]) to obtain pre- and post-scores on the level of knowledge, self-confidence and educational needs. Data-analysis was explorative. Sum-scores of knowledge, self-confidence and educational needs are described per time points and separately for the professional backgrounds. In addition differences of pre- and posttest scores were calculated and analysed. The expectations concerning the PPC course and the experiences of the intervention were explored in focus group interviews and analysed by thematic analysis. Results: For all participants (sum-score) there was a significant increase of knowledge (p=0,001) and self-confidence (p=0,001). There was no difference between the pre- and posttest-scores in the educational needs. In the focus group interviews the participants of all professional groups agreed with the multi-professional approach of the course. However, all participants required teaching units exclusively for every professional group, to improve and to discuss specific aspects. One of the most important impacts of the course for the professionals was the possibility for sharing experiences and insights and building up a nationwide network.

Poster N°: 294

Type of presentation: Poster
Poster session: First Group 29 May Thursday, 10.30 to 30 May Friday 13.00
Category: Palliative care in Children and Adolescents
Title: The process of relinquishing: parental struggle between loss and preserving of their child receiving palliative care
Authors:
Marijke Kars Julius Center of Health Sciences/Nursing Sciences University Medical Center Utrecht NETHERLANDS
J.J.M. (Hans) van Delden UM CU Utrecht NETHERLANDS
M.C. (Ria) de Korte-Verhoef UM CU Utrecht NETHERLANDS
M.H.F. (Mieke) Grypdonck UM CU Utrecht NETHERLANDS
M. (Marian) Verkerk UMCG Groningen NETHERLANDS

Background: In the Netherlands each year 150 children die of cancer, 80 percent of whom die at home. Parents play the most important role in the care and support for the incurably ill child. At the same time they have to deal with their own break down facing the loss of their child. Research question: How do parents experience the process of relinquishing when caring for their child when curative treatment failed? Methods: Qualitative design: Grounded Theory Population: Of 23 cases both parents (n=44) were individually interviewed. In 7 cases a second or third interview was conducted. This resulted in 55 interviews, 40 during the palliative phase and 15 after death. 42 caregivers professionally involved in the included cases were interviewed. Interviews were audio taped and transcribed verbatim. Analysis took place by a research team, supported by the computer programme NVivo 7. Results: Central in the parental process of relinquishing is the continuous internal struggle between the confrontation with signals of the loss of their child and the wish to preserve the child. We distinguished four phases in the palliative process: becoming aware of the inevitable death, creating a good time, managing the change for the worse, the let the child go. During these phases the perception of factors affecting the process of relinquishing changes. Our findings show that a strong wish for preservation makes parents avoidant or less sensitive for signals of loss. At the other hand parents came to terms with loss, were even longing for death, in order to relieve the suffering of both, child and parent. The process of relinquishing influences parental decision-making and acting and therefore has direct consequences for the child. Conclusions: Relinquishing is not a natural process but asks efforts to deal with the loss. To optimize the child’s caring situation professional caregivers should place their treatment and support in the context of loss and preservation in order to support parents in their process of relinquishing.

Poster N°: 295

Type of presentation: Poster
Poster session: First Group 29 May Thursday, 10.30 to 30 May Friday 13.00
Category: Palliative care in Children and Adolescents
Title: Optimization of palliative care for children with solid tumors during three last months of their life
Authors:
Sergey Postovsky Pediatric Oncology/Hematology Rambam Medical Center ISRAEL
Myriam Weyl Ben Arush Rambam Medical Center Haifa ISRAEL
Bilal Moaed Rambam Medical Center Haifa ISRAEL

Background: Aim of the study: evaluate the influence of incorporation of community services in the palliative care of pediatric cancer patients (pts) during last 3 months of life. Methods: Retrospective analysis of medical charts of 48 (25 males and 23 females, with median age of 12.5 years, range 0.5–28y) pts who died between 1.1.2003 and 1.10.2007 was performed, 21 pt suffered from brain tumors, 19 pts – sarcomas, 6 pts – neuroblastoma and 2 pts – carcinom. Two groups of pts were analyzed separately: those who were followed by personnel of hospital only (35 pts) and those who received care both by hospital and community palliative care team as well (13 pts). Results: Among pts included in the 1st group were 121 overnight admissions (at average, 3.46 per pt). Combined with day-care admissions were 619 days totally (at average, 17.7 per pt) which child spent during the last 3 months of his/her life. 17% of these children were not satisfactory managed regarding various symptoms they suffered from. 31/38 (81.6%) pts needed use of opioids as apart of their palliative treatment. Among children included in the 2nd group, there were 35 overnight hospital admissions (at average, 2.7 per pt) and 227 days of hospitalization (at average, 17.5 days per pt) All but one pt received satisfactory symptoms management and only 9/13 (69.2%) needed opioids. Conclusions: 1. Integration of community services into the palliative care of pediatric oncology pts facilitates their better management allowing such pts spent more time at their homes and thus to avoid many hospitalizations. 2. Pts receiving palliative care using community services experience less symptoms, necessitating using opioids and probably other drugs.

Poster N°: 296

Type of presentation: Poster
Poster session: First Group 29 May Thursday, 10.30 to 30 May Friday 13.00
Category: Palliative care in Children and Adolescents
Title: Imaging studies among pediatric cancer patients during the last phase of life
Authors:
Sergey Postovsky Pediatric Oncology/Hematology Rambam Medical Center ISRAEL
Myriam Weyl Ben Arush Rambam Medical Center Haifa ISRAEL
Ruth Ofir Rambam Medical Center Haifa ISRAEL
Bilal Moaed Rambam Medical Center Haifa ISRAEL

Background: During palliative phase of disease children frequently undergo various imaging studies (IS) part of which is not absolutely necessary. These IS may add even more physical and psychological burden to the suffering child and his/her family without any improvement in quality of remaining life. Aim of this study was to evaluate current practice of performance of various (IS) among children with various solid tumors during last 3 months of their life. Methods: Retrospective analysis of medical
charts of 48 (25 males and 23 females, with median age of 12.5 years, range 0.5–28y) pts who died between 1.1.2003 and 1.10.2007 was performed. 21 pt suffered from brain tumors, 19 pts – sarcomas, 6 pts – neuroblastoma and 2 pts – carcinoma. Results: During the final period of pts’ life were performed 126 various imaging studies (X-ray, US, CT, MRI, bone scan and other scans with various isotopes). Every pt underwent at average 2.62 IS (range, 0–10). 70% of IS were performed in pts with sarcomas. One pt with sarcoma and 6 pts with brain tumors underwent no IS at all. 40% of all IS were performed due to emergency conditions, 52% of IS – for evaluation of disease status, 8% – as follow-up after some kind of surgical intervention (pleural puncture, central line insertion, etc).

Conclusions: 1. Complexity of final phase of life of pts with sarcomas necessitates relatively frequent performance of various IS. 2. Earlier clarification of incurable status of pts’ disease may potentially decrease the need for performance IS and thus to diminish discomfort of such pts during last months of their life.

Poster N°: 297

Type of presentation: Poster
Poster session: First Group 29 May Thursday, 10.30 to 30 May Friday 13.00
Category: Palliative care in Children and Adolescents
Title: Parents’ perspective: Symptoms and quality of life in children with cancer in the end-of-life care period
Authors:
Boris Zernikow Vodafone Stiftungsinstitut Vestische Kinder und Jugendklinik Datteln GERMANY
Betina Hübner Vodafone Foundation Institute for Children’s Pain Therapy and Paediatric Palliative Care Datteln GERMANY
Joanne Wolfe Department of Pediatric Oncology, Dana-Faber Cancer Institute and Children’s Hospital Boston U. STATES
Christine Wamser Vodafone Foundation Institute for Children’s Pain Therapy and Paediatric Palliative Care Datteln GERMANY
Tanja Hechler Vodafone Foundation Institute for Children’s Pain Therapy and Paediatric Palliative Care Datteln GERMANY
Stefan J. Friedrichsdorf Children’s Hospital and Clinics of Minnesota, Pain and Palliative Care Program Minneapolis U. STATES
Markus Blankenburg Vodafone Foundation Institute for Children’s Pain Therapy and Paediatric Palliative Care Datteln GERMANY
Andrea Menke Vodafone Foundation Institute for Children’s Pain Therapy and Paediatric Palliative Care Datteln GERMANY
Wilma Henkel Vodafone Foundation Institute for Children’s Pain Therapy and Paediatric Palliative Care Datteln GERMANY
Dörte Garske Vodafone Foundation Institute for Children’s Pain Therapy and Paediatric Palliative Care Datteln GERMANY

Background: In the present study, we investigated the situation of children who had succumbed to their malignancy in Germany as perceived by their parents.

Methods: We contacted all existing departments for paediatric oncology in the German federal state of North-Rhine Westphalia and asked them to contact parents for participation in our study who had lost their child to cancer in 1999 and 2000. Upon agreement, we interviewed the parents utilising a validated semi-structured interview on distressing symptoms and quality of life of their children during the end-of-life care period.

Results: Six of the 19 departments agreed to participate. Parents of 48 children (31 boys, 17 girls) were interviewed. 74% of the children died due to a progression of their malignancy. Of these, 50% obtained cancer-directed therapy, which was negatively rated by the parents in hindsight. The main distressing symptoms were fatigue, pain, loss of appetite, and dyspnoea according to the parents. While parents perceived pain and constipation to have been treated successfully, loss of appetite and anxiety were not treated effectively.

Conclusions: Questions in terms of benefits and costs of cancer-directed therapy in the end-of-life care period need to be addressed in future prospective studies. In addition, the present study demonstrated that psychological symptoms (e.g. anxiety) are frequent symptoms in the end-of-life care period and cause severe suffering in the children. Future studies need to investigate effective treatment strategies, e.g. in a multidisciplinary setting.

Poster N°: 298

Type of presentation: Poster
Poster session: First Group 29 May Thursday, 10.30 to 30 May Friday 13.00
Category: Research into policy
Title: Palliative care in azores, yes or no?
Authors:
Lina Andrade Continued Care Primary Helcare Center of Ponta Delgada PORTUGAL

Background: As a nurse, and as a person, I am very interested in Palliative Care, and have been continuing my education so, I can care better, of a group of people that is getting bigger as time goes by. There are eleven Palliative Care Units in Portugal, but none in Azores Islands. In my study I proposed to know how people of Azores think and feel, about the care given to the patient and family, that goes on through an incurable illness, and a terminal stage. The aim of the study was to analyze the importance, people, healthcare professionals and others, based on their experiences, give to the implementation of Palliative Care Units, in Azores.

Methods: The study population, was, everyone older than eighteen, who would like to participate in the study by filling the questioner. Six hundred questioners were distributed and 197 were returned, being three of them invalid. I had 194 participants. This was a quantitative study, based in descriptive research, which purpose was observe, describe and classify, the answers to the method of gathering data which was a questioner with yes or no, and open kind of answers. The former ones, were categorized and passed through a thematic categorical analyzes. Access and Excel were the informatics programs used in dealing with data. Results: The results show there is still lack of knowledge about Palliative Care, but, participants feel that the type of care patients with incurable illnesses have, is lower of what they should. Even some healthcare professionals said they fear dealing with death because they have no education on how to do it. Participants told us that Palliative Care Education is essential for healthcare professional, and the majority think Palliative Care are a need in Azores.

Conclusions: People feel that there should be a specific care towards those in suffering because of incurable illnesses, and point out education as the first thing to do. The majority think Palliative Care Units should be a reality in Azores.

Poster N°: 299

Type of presentation: Poster
Poster session: First Group 29 May Thursday, 10.30 to 30 May Friday 13.00
Category: Research into policy
Title: End-of-life care policies and guidelines in Flemish health care institutions: a comparison with The Netherlands
Authors:
Ina D’Haene Faculty of Medicine & Health Sciences Ghent University BELGIUM
Johan Bilson Vrije Universiteit Brussel, End-of-Life Care Research Group Brussels BELGIUM
Roeline Pasman VU University Medical Centre, EMGO Institute Amsterdam NETHERLANDS
Luc Deliens Vrije Universiteit Brussel, End-of-Life Care Research Group Brussels BELGIUM
Robert Vander Stichele Ghent University, Heymans Institute of Pharmacology Ghent BELGIUM

Background: In our interdisciplinary setting, we performed a comparative analysis of end-of-life care policies and guidelines in Flemish health care institutions, and compared them with the End-of-Life Care Policy in The Netherlands. Our study population consisted of the Flemish and Dutch health care institutions.

Methods: We conducted a descriptive research, which purpose was observe, describe and classify, the answers to the method of gathering data which was a questioner with yes or no, and open kind of answers. The former ones, were categorized and passed through a thematic categorical analyzes. Access and Excel were the informatics programs used in dealing with data.

Results: The results show there is still lack of knowledge about Palliative Care, but, participants feel that the type of care patients with incurable illnesses have, is lower of what they should. Even some healthcare professionals said they fear dealing with death because they have no education on how to do it. Participants told us that Palliative Care Education is essential for healthcare professional, and the majority think Palliative Care are a need in Azores.

Conclusions: People feel that there should be a specific care towards those in suffering because of incurable illnesses, and point out education as the first thing to do. The majority think Palliative Care Units should be a reality in Azores.
Bregje Owuteaka-Philipsen VU University Medical Centre, EMGO Institute Amsterdam NETHERLANDS
Freddy Mortier Ghent University, Centre for Environmental Philosophy and Bioethics Ghent BELGIUM

Introduction/Objective: The approval of the Euthanasia law in Belgium in 2002 caused a growing need for and interest in the development of end-of-life care policies and guidelines in health care institutions in Flanders (Belgium). Little is known about the prevalence of end-of-life care policies and guidelines in Flemish health care institutions. The objectives of this study are to determine the prevalence of different end-of-life care policies and guidelines in general hospitals, psychiatric hospitals, and residential facilities for disabled persons (RFDP), and to compare the results for the hospital setting with a parallel study conducted in The Netherlands in 2005. Methods: Design: From May to October 2007, we conducted a postal survey using a 16-page questionnaire on end-of-life care policies and guidelines, based on the questionnaire used in the Dutch study in 2005. Participants: Members of the Board of Directors of all academic, general and psychiatric hospitals and Managing directors of all RFDP in Flanders (excluding institutions not providing intramural care). Results: Of the 104 hospitals surveyed, 58 (56%) returned a completed questionnaire. The response from RFDP was 60% (99/165). Almost all (97%) general hospitals have a written policy on euthanasia. In 74% of these policies euthanasia is allowed under certain conditions. 77% of all psychiatric hospitals that responded have a written euthanasia policy, of which 82% never allows euthanasia. Only 20% of the RFDP have a written policy on euthanasia, of which 55% allows euthanasia under certain conditions. The results show that hospitals mainly had guidelines for euthanasia and DNAR-decisions. The prevalence of guidelines for palliative sedation, alleviation of symptoms, and withdrawing or withholding treatment is lower (71%, 64% & 77%). The prevalence of euthanasia and end-of-life decisions guidelines is much lower in psychiatric hospitals and in RFDP. When comparing the results for general hospitals with The Netherlands, we notice a higher prevalence of euthanasia and ELD guidelines in Flemish hospitals. For psychiatric hospitals the results of the two countries are comparable, except for palliative sedation guidelines, which have a significant higher prevalence in Flemish (22%) than in Dutch psychiatric hospitals (8%).

Posters

Poster N°: 300
Type of presentation: Poster
Poster session: First Group 29 May Thursday, 10.30 to 30 May Friday 13:00
Category: Research into policy
Title: Does palliative care turn more generalist under current policy reforms?
Authors: Marjolein Gysels Palliative Care, Policy and Rehabilitation King’s College London UNITED KINGDOM
Irene Higginson King’s College London London UNITED KINGDOM
Cathy Shipman King’s College London London UNITED KINGDOM
Patrick White King’s College London London UNITED KINGDOM

Background: Palliative care is an area of service provision that, in the past, has been relatively neglected. In the UK, palliative care services have been developed as a part of the reforms of cancer services, which determined its specific focus on specialist palliative care. Methods: The aim was to examine the most recent policy developments, and explore whether these signal a shift in focus from specialist to generalist palliative care. In the context of an SDO* scoring exercise of the literature on generalist care at the end of life, a content analysis of key policy and guidance documents was undertaken. Websites of academic, policy, and governmental institutions were searched and relevant documents identified. These were read in their entirety, summarised and contextualised. An expert panel provided advice for the review. Results: Since 2003 policy documents appeared that promoted choice in type and place of care at the end of life. Policy was initially directed at patients with cancer but eventually extended to all ages and conditions. Another change of direction was the shift of care from hospitals to the community. In 2006, the development of an End of Life Care Strategy was announced. Other initiatives have been undertaken in line with these developments to increase the emphasis on generalist palliative care provision in the UK. Conclusions: Recent policy reforms have led to a more generalist view of palliative care reflecting an increased awareness of the extent of the generalist contribution. In this area of service development policy aspirations seem to be considerably ahead of published research and service implementation. Funder: * National Health Service (NHS) Service Delivery and Organisation (SDO) Research Programme

Poster N°: 301
Type of presentation: Poster
Poster session: First Group 29 May Thursday, 10.30 to 30 May Friday 13:00
Category: Research into policy
Title: Generalist services for adults at the end of life: scoping the literature
Authors: Marjolein Gysels Palliative Care, Policy and Rehabilitation King’s College London UNITED KINGDOM
Patrick White King’s College London London UNITED KINGDOM
Stephen Barclay University of Cambridge Cambridge UNITED KINGDOM
Cathy Shipman King’s College London London UNITED KINGDOM
Irene Higginson King’s College London London UNITED KINGDOM

Background: In the context of the UK Department of Health initiative to improve end of life care, NHS Service Delivery and Organisation R&D Programme (SDO) requested a scoping exercise of stakeholders and the literature in order to inform future commissioning. Methods: The aim was to scope the literature on generalist services for adults at the end of life. Key systematic reviews were identified. Primary studies were searched from 2004 onwards. One search focused on four medical electronic databases. HMIC, Assia and SCI were searched for social care, or older people. Inclusion was based on relevance, rather than on quality criteria. An expert panel provided guidance for the review. Results: Twenty-three reviews and a total of 108 primary studies were included, mostly coming from the USA, UK, and Australia. The studies were predominantly on service delivery organisational issues. Where studies focused on experiences, these were primarily from health professionals. Patient and carer perspectives were less well represented. The areas most frequently covered were health professionals’ roles, services, ‘models’ of good practice, quality of generalist care in practice, education, place of care with the greatest concern for home care. Areas less covered were: cost-effectiveness, under-served populations, bereavement, mental health and technological developments. There were few evaluation studies. Conclusions: Generalist care at the end of life is a vast area with much disparate research activity. More systematic initiative is needed to establish understanding of the term, and determine its implication and significance. This field typically demands complex interventions and conducting these is methodologically and ethically challenging. Understanding the issues in non-cancer conditions is a priority. Funder: *National Health Service (NHS) Service Delivery and Organisation (SDO) Research Programme, England.

Poster N°: 302
Type of presentation: Poster
Poster session: First Group 29 May Thursday, 10.30 to 30 May Friday 13:00
Category: Research into policy
Title: Pain and symptom relieving drugs for HIV/AIDS in Sub-Saharan Africa: a study of policy and practice
Authors: Richard Harding Palliative Care, Policy & Rehabilitation King’s College London UNITED KINGDOM
Background: Pain, nausea & anxiety are burdensome throughout the HIV trajectory, and effectively managed in palliative care. Availability and supply of opioids in Africa (where 25 million live with HIV) are critical factors contributing to inadequate management. To identify current prescribing policies & practice in 12 African countries and to examine barriers, and potential facilitators for opioids and key symptom-controlling drugs. Methods: A) Cross sectional survey of palliative care sites, B) telephone interviews with International Narcotics Control Board (INCB) competent authorities. Results: 62 sites (61% response rate). 36 (58.1%) currently dispensing opioids in following formulations: oral liquid, n=29 (46.8%), tablets, n=20 (32.3%), and injectable, n=17 (27.4%). 7 sites reported Step 1 analgesics not always available, 7 sites Step 2 analgesics were not always available; with respect to antiepileptics, neuropathic pain agents and anxiolytics, these were irregularly available for 32, 20 and 16 sites respectively. Respondents from all 12 countries cited similar themes for challenges to opioids provision: Supply (overly tight control, unreliable stocks, few dispensers); Legislation (lack of national policy, bureaucratic processes); Education (clinician knowledge, fear of addiction, poor compliance); Practical (costs, storage requirements, insufficient prescribers). 5 INCB competent authorities participated within Ministries. Contrary to provider data, respondents reported an adequate numbers of opioid providers, and that Ministries may not be able to offer adequate regulation for increased provider numbers. In every country, INCB competent authorities cited opioids they believed to be available in-country that were never cited by any service within that country. Conclusions: Practical recommendations have been made to address fundamental challenges, including inadequate staff numbers to prescribe, and unreliable supply. Any efforts to expand supply should ensure that current systems are not weakened.

Poster N°: 303

Type of presentation: Poster
Poster session: First Group 29 May Thursday, 10.30 to 30 May Friday 13.00
Category: Research into policy
Title: Impact of Targeted Research in Palliative Medicine Development on Politics in Germany
Authors: Birgit Jaspers Department of Research & Science, Malteser Hospital University of Bonn, Centre for Palliative Medicine GERMANY
Eberhard Klaschik University of Bonn, Department of Research & Science, Centre for Palliative Medicine, Malteser Hosp. Bonn GERMANY
Katri Elina Clemens University of Bonn, Department of Research & Science, Centre for Palliative Medicine, Malteser Hosp. Bonn GERMANY
Thomas Schindler German Association for Palliative Medicine Berlin GERMANY

Background: In 2004, a study on the state-of-art of palliative care/palliative medicine (PC/PM) in 11 European countries was conducted in order to explore which achievements are recommendable for further governmental commitment in the development of PC/PM in Germany. The study was initiated by PM expert members of the Study Commission Ethics and Law in Modern Medicine of the German Bundestag (SCEL). Included countries were: Austria, Belgium, France, Germany, Great Britain, Norway, Poland, Spain, Sweden, Switzerland and The Netherlands. Methods: Review of literature and policy documents, development of a questionnaire sent to national experts including a glossary of the terms used, interviews with national experts, another review of literature published during the course of the study. Results: The study gave 49 recommendations in ten categories, including development and funding of services, amendment of legal regulations in various fields of health care, public funding of research, education, networking, needs assessment development, better integration of older people and children. All recommendations were put in the official report of SCEL for the government in 2005. Since then, various recommended tasks have been tackled by governmental and organisational bodies in Germany. Most important changes include strengthening of the role of the GP, case management structures and training, cost-effective use of 'narcotics' in hospitals (new law), integration of PM in the education of other professions (physiotherapists), funded network for paediatric PC, funding of research in PM (Deutsche Forschungsgemeinschaft), and above all, a new law on the right of the patient to receive specialised PM home care, budgeted with some Mill 630 from 2007 to 2010. Conclusions: Recommendations to the government, based on detailed research in the state of art in PM/PC that are handed over by committed official bodies can have a sustained impact on health care regulations, organisation and funding.

Poster N°: 305

Type of presentation: Poster
Poster session: First Group 29 May Thursday, 10.30 to 30 May Friday 13.00
Category: Research into policy
Title: Chronic cancer pain treatment in Russia: focus on legislation
Presenting author: Georgiy Novikov
Authors: Valery SAMOYLENKO Palliative Care Course Sechenov Moscow Medical Academy RUSSIA
Georgiy Novikov Sechenov Moscow medical Academy Moscow RUSSIA
Background: More than 300,000 patients annually die of cancer in Russia, and about 70% from them suffer from chronic pain during end-of-life. In the past decade significant progress in the opioids availability was made due to Regulations No. 53/9–96 of 17.12.1996 of the Narcotics Control Committee and Regulations No 330 of 12.11.1997 and No 2 & No 3 of 09.01.2001 of the Russian Ministry of Health on the level of opioids used in hospices and prescribed to home care patients. The last Regulation No. 110 of 12.02.2007 of the Russian Ministry of Health allows significantly increasing the dose of narcotics per capita compared with previous regulating acts. So, there is a progress in the opioids availability for the patients with cancer pain. Strict and rigid regulations on the prescription of strong opioids, and very close control of their use involving police requirements and much medical administration that were an object of criticism now is reviewed. Nowadays, many pharmacotherapeutic choices are available for the management of cancer pain. They include: codeine, morphine sulfates, propioniphenylpentoxyethylpiperidine (Russian original opioid), trimineperid hydrochloride, etylmorphine, buprenorphine, and fentanyl. Perspectives in the complex approach to control chronic cancer pain are determine, and include increase in opioids availability, preferable use of noninvasive long-acting formulations and adequate selection of adjunctive medications and other modalities combined with opioid therapy. Transdermal fentanyl (Durogesic) introduction in clinical practice was successful, and in the past 5 year more than 20,000 cancer patients from 62 cities relieved their suffering with this opioid. Opioids treatment, including transdermal forms, is free of charge in Russia.

Methods: No. Results: No. Conclusions: No.

Poster No.: 306

Type of presentation: Poster & poster discussion session
Poster session: First Group 29 May Thursday, 10.30 to 30 May Friday 13.00
Category: Research into policy
Title: Engaging practitioners in developing research priorities for end of life care: using the nominal group technique
Authors: Cathy Shipman Department of Palliative Care & Policy King’s College London UNITED KINGDOM
Sarah Forrest University of Cambridge Cambridge UNITED KINGDOM
Jeremy Dale University of Warwick Coventry UNITED KINGDOM
Jonathan Shepherd University of Warwick Coventry UNITED KINGDOM
Stephen Barclay University of Cambridge Cambridge UNITED KINGDOM
Patrick White King’s College London London UNITED KINGDOM
Scott Murray University of Edinburgh Edinburgh UNITED KINGDOM
Maryjane Gysele King’s College London London UNITED KINGDOM
Marlyn Peters King’s College London London UNITED KINGDOM
Steve Dewar King’s Fund London London UNITED KINGDOM
Suzanne White King’s College London London UNITED KINGDOM
Irene J Higginson King’s College London London UNITED KINGDOM

Background: As little is known about generalist end of life care, a consultation was commissioned across England and Scotland to identify key issues and research priorities. This presentation aims to describe use of the nominal group technique in developing agreement amongst diverse multi-professional and user groups on research priorities to improve generalist end of life care. Methods: The modified nominal group technique was used to seek views, discuss, clarify, and prioritise suggestions for research. 285 commissioners, generalist and specialist palliative care providers, academics, voluntary and user groups in England and Scotland were invited to participate. Interviews were undertaken by telephone, face-to-face, and by email using short questionnaires. A thematic analysis was undertaken and research themes prioritised at group meetings. Results: Consultations were held in London, Cambridgeshire, Warwickshire and Scotland over 7 months. 210(74%) participants undertook an interview or returned an email questionnaire; 170 enthusiastically voted on their top 5 priorities. The technique provided a transparent, democratic method of discussing and prioritising research. Meetings facilitated networking between organizations and led to local strategy development. The method was modified to enable participation by email voting and translating the ideas of those less familiar with research into research questions. A wide range of ideas for research were generated confirming that this is an important and neglected area. Conclusions: The modified nominal group technique was an effective method of engaging a wide range of participants quickly. It was particularly successful in involving those with clinical expertise in research prioritisation, thereby contributing to bridging the research-practice gap. The process was transparent and democratic and could be adapted to other areas of policy and research in palliative care. Funder: National Institute for Health Research SDO Programme, England

Poster No.: 307

Type of presentation: Poster
Poster session: First Group 29 May Thursday, 10.30 to 30 May Friday 13.00
Category: Research into policy
Title: Physician-assisted death and the involvement of palliative care professionals in Belgium
Authors: Tinne Smets Medical Sociological and Health Sciences Vrije Universiteit Brussel BELGIUM
Luc Deliens Vrije Universiteit Brussel Brussels BELGIUM
Johan Bilsen Vrije Universiteit Brussel Brussels BELGIUM
Els De Keyser Vrije Universiteit Brussel Brussels BELGIUM
Mette L Rurup Department of Public and Occupational Health, and EMGO Institute, VU University Medical Center Amsterdam NETHERLANDS
Joachim Cohen Vrije Universiteit Brussel Brussels BELGIUM

Background: Medical end-of-life decisions are known to occur in several countries. They include withholding or withdrawing potentially life-prolonging treatments, alleviation of pain and symptoms with a potential life-shortening effect, and physician-assisted death (PAD). PAD is deemed the most controversial category and therefore deserves closer scrutiny. In this study we investigate the characteristics of patients whose request for PAD was granted and the preceding decision-making process, with special attention to the involvement of palliative care professionals. Method: We analysed data on 998 reported cases of PAD in Belgium, between 22 September 2002 and 31 December 2005. Results: Of all patients 51.6% were male, 48.4% were female. Most patients (51.6%) were between 60 and 79 years old. The most frequent underlying illness was cancer (83.1%). For 95.8% of the patients, unbearable physical and/or psychological suffering was reported. Most often reported were: pain (53.5%), loss of dignity/despair (42.5%), and cachexia/exhaustion (32.5%). Physicians are legally required to consult another physician. The consultant was in 45.6% of the cases a specialist, in 39.8% a general practitioner, and in 14.6% a palliative care physician. Palliative care physicians were more often consulted when a patient died in a hospital (19.1%) than at home or in a nursing home (8.8%). In 32.6% of all patients the treating physician additionally consulted 1 or more palliative teams. Palliative teams were more often consulted for cancer patients (34%) than for non cancer patients (25.2%). No correlation was found between whether or not palliative care professionals were consulted and type of suffering. Conclusions: Although not legally required, many physicians involved palliative care professionals in the decision-making process preceding PAD. Physicians thus seem to be aware of the importance of consulting palliative care experts and offering available palliative care options for suffering patients requesting to end their life.

Poster No.: 308

Type of presentation: Poster
Poster session: First Group 29 May Thursday, 10.30 to 30 May Friday 13.00
Category: Research into the organization of services
Title: Palliative careers fear the use of computer technology threaten optimal care of their patients
Authors:
Beate André Department of Cancer Research & Molecular Medicine
Norwegian University of Science and Technology NORWAY
Gerd I. Ringdal Department of Psychology, Faculty of Social Sciences and Technology Management, NTNU, Trondheim, Nor Trondheim NORWAY
Marie Holmæko Helse Midt-Norge, RHS Sjørdal NORWAY
Jon H. Loge Department of Cancer Research & Molecular Medicine, Faculty of Medicine, Norwegian University of Sci Trondheim NORWAY
Tore Rønnestad Faculty of Nursing, Sar-Trondelag University College, Norway Trondheim NORWAY
Endre Sjøvold Department of Industrial Economics and Technology management, Faculty of Social Sciences and Technol Trondheim NORWAY
Stein Kaasa Department of Cancer Research & Molecular Medicine, Faculty of Medicine, Norwegian University of Sci Trondheim NORWAY

Background: Improving the quality of health care is an ongoing process, while at the same time health care institutions are under increasing pressure to become more efficient. Information technology, with its potential to increase efficiency, accuracy and accessibility of information, has been expected to play an important role in supporting and developing these changes. Understanding a health care group’s culture can facilitate the change process. The aims of this study were to investigate the culture, attitudes and behavioral modification toward changing processes in a palliative care unit. Methods: Health care personnel (N=25) at the Palliative Medicine Unit (PMU) filled in a questionnaire including statements about different statements about their perception of the culture at the unit. Each statement was given in relation to three different perspectives: today, future and desired. Physicians, nurses and physiotherapists were among the respondents. The method of Systematizing Person-Group Relations was used for gathering data and for the analysis. Results: The scores for the statements referring to the perspectives today and future were nearly equal. There were differences between the statements referring the perspectives to today and desired and that indicates that the respondents were not satisfied with the current situation. The culture at the unit seems to consider more time and closer relation to the patients as important values. Conclusions: The difference between the perspectives today and desired shows that the respondents in this study want a change and were not satisfied with the current situation. Both the passive attitude and the existing culture can be a barrier to implementation of computer technology in PMU.

Posters:

Poster N°: 309
Type of presentation: Poster
Poster session: First Group 29 May Thursday, 10.30 to 30 May Friday 13.00
Category: Research into the organization of services
Title: Healthcare providers’ suffering: unexpected results from the «Cancer, Parkinson’s disease and Huntington’s chorea.
Authors:
Anita Behzadi Klinik für Palliativmedizin Universitätsklinikum Aachen GERMANY

Introduction: For years now, scientists have lobbied the German government to increase the support for palliative care as an integral part of the national health system. Due to new policies introducing a new funding scheme, we now have the opportunity to establish an integrated palliative care network. Still unresolved, however, is the question of how such a network ensures a flexible and quick response to the patient’s changing needs in the various stages of his or her illness. Method: The study focuses on two best-practice models for the implementation of an integrated palliative care network in Canada and the UK. Fieldwork notes and interviews with experts are analyzed following the documentary method and augmented by the study of the regional resources. Results: Successful implementation strategies for a palliative care network based on the need of the population are manifold: a co-ordinated collaboration structure with centralized communication, shared standards of care, common documentations, and ongoing educational training. Care providers working in more than one position within the palliative care network play an outstanding role. By crossing the borders they are hereby facilitating collaboration and co-operation. On a formal as well as informal level, they perform a leading educational role for a multidisciplinary communication culture. Conclusions: Integrated palliative care poses an immense challenge for the traditional care structures. Different institutional, communicational, and professional cultures clash with each other. The idea of care is confronted by the perspective of palliation. The integration of palliative care into national policies must be the groundwork. Nevertheless, palliative care networks that aim a multidisciplinary community based support with a focus on patients and relatives can be only successful by trying to connect the various caring facilities with providers across the sectors in the set up process.

Poster N°: 310
Type of presentation: Poster
Poster session: First Group 29 May Thursday, 10.30 to 30 May Friday 13.00
Category: Research into the organization of services
Title: A neurological care pathway to trigger palliative care and neuro-palliative rehabilitation for people with neurological disease
Authors:
Janice Brown School of Nursing & Midwifery University of Southampton UNITED KINGDOM

Background: The neurological conditions policy group of the National Council for Palliative Care in the UK has a mission to promote the provision of palliative care in all health and social care settings for all who need it. They aimed to develop a neurological care pathway as a means of supporting health and social care professionals to support identification of palliative and neuro-palliative rehabilitation needs; to serve as a resource with in-built triggers and referral indicators to guide professionals in enhancing delivery and quality of care for neurological patients from pre-diagnosis to specialist palliative and neuro-palliative rehabilitation care; mapping clinical need to services and supporting proactive interface between pivotal services. The focus was on four disease groups: motor neurone disease, multiple sclerosis, Parkinson’s disease and Huntington’s chorea. Methods: Three stages were identified; review of pathways in the four patient groups; review of current clinical services and practice in neurological disease; public and web based consultation of the developing pathway. Results: The neurological care pathway developed as two diagrammatic pathways with indicators for referral and in-built triggers to enhance health and social care professional decision making for considering palliative care and neuro-palliative rehabilitation for people with neurological disease. Pathway 1 presents the pathway to diagnosis. Pathway 2 is the neurological care pathway consisting of two parts; at diagnosis with early action considerations and the neurological care pathway. Conclusions: The neurological care pathway is a tool to assist health and social professionals enhance the quality of care for people with life-limiting neurological conditions from pre-diagnosis to the palliative phase.

Poster N°: 311
Type of presentation: Poster
Poster session: First Group 29 May Thursday, 10.30 to 30 May Friday 13.00
Category: Research into the organization of services
Title: A neurological care pathway to trigger palliative care and neuro-palliative rehabilitation for people with neurological disease
Authors:
Serge Dancault Service des soins palliatifs CHUM – Hôpital Notre-Dame CANADA
Véronique Lasnier UQAM Montréal CANADA
Claude Sicotte Université de Montréal Montréal CANADA
Louise Telle Hôpital Notre-Dame du CHU Montréal CANADA
Background: The «Cancer, Suffering and Healthcare Services» research program, funded by the Canadian Institutes of Health Research, aimed to better understand the suffering of palliative stage cancer patients and to identify, from the perspective of healthcare providers, organizational obstacles that impede suffering alleviation within our occidental healthcare settings. Methods: A qualitative research design with phenomenological analysis of data yielded emergent conceptual categories progressively integrated into a theoretical dynamic formulation. Due to the inductive properties of this method, unexpected dimensions beyond the initial focus of research were allowed to spontaneously emerge, highlighting healthcare providers’ own suffering. Participants: 26 palliative stage cancer patients were interviewed, some of them twice (n=5). 93 healthcare providers were interviewed; 6 focus groups were organized for validation purposes. Studies were conducted in a variety of oncology centers from teaching and non-teaching hospitals from the Greater Montreal region in Canada. Results: Patients’ subjective experiences of chaos and helplessness are often shared by healthcare providers working alongside those nearing the end of life. Faced with the many constraints stemming from healthcare management practices, healthcare providers see themselves as subjected to a suffering «wound» adds to unavoidable, idiosyncratic lifelong burdens. Conclusions: Rather than to flee from such a wound, the healthcare provider confronted with his own suffering can use it to better attune himself to his patient’s suffering. Acknowledging healthcare providers’ own suffering can only benefit the level of care afforded in the palliative stages of patients’ illnesses.

Poster N°: 312

Type of presentation: Poster
Poster session: First Group 29 May Thursday, 10.30 to 30 May Friday 13.00
Category: Research into the organization of services
Title: Case Management in Palliative Care: quantitative analysis of scope of enquiries
Presenting author: Christoph Ostgathe
Authors: Anne Düsseldiek Department of Palliative Medicine University Hospital Cologne GERMANY
Raymond Volz Department of Palliative Medicine, University Hospital Cologne GERMANY
Beate Werner Department of Palliative Medicine, University Hospital Cologne GERMANY
René-Alfons Bostelaar Department of Nursing, University Hospital Cologne GERMANY
Sigrid Altmeyer Department of Palliative Medicine, University Hospital Cologne GERMANY
Christoph Ostgathe Department of Palliative Medicine, University Hospital Cologne GERMANY

Background: Growing complexity of Palliative Care (PC) services and patient needs lead to the necessity of better coordination. Therefore a specific Case Management (CM) position was created. One of the main tasks of CM is the central coordination and management of enquiries. This study aimed to identify to what extent this facility is used by different stakeholders and which contents and needs of patients and families are connected with it. Methods: All new contacts to the newly established CM telephone “hotline” were documented prospectively and consecutively between 01/2006 and 05/2007. The documents were analysed using descriptive statistics on SPSS. Results: 1000 enquiries were documented. Enquiries came from internal staff (36%), patients/caregivers (41%) and external services (23%). Of the internal enquirers most were physicians and case managers from different medical departments with 60% (n = 361). Of the external enquirers the major group were general practitioners with 60% (n = 227). The range of contents included: requests for admission to the palliative care unit (46%), for the home PC service (14%) and for the hospital support team (9%). Information about hospice and PC as well as psychosocial counselling was asked for by 26%. 5% were referred to the physicians of the PC team as they concerned the management of pain (70%) and other symptoms. 62% of the enquiries for admission (n = 464) indeed lead to an admission, 38% could be dealt with by telephone advice, admission to hospice etc. Conclusions: CM in PC is used by different internal and external stakeholders and meets a wide spectrum of needs. About 90% of all requests within the new contacts can be answered by the Case Manager if adequately qualified. These data prove that CM fulfills an extensive clearing function. According to the theoretical model of CM this is the first necessary condition for a successful CM process. It guarantees that patients get access to the services they need.

Poster N°: 313

Type of presentation: Poster
Poster session: First Group 29 May Thursday, 10.30 to 30 May Friday 13.00
Category: Research into the organization of services
Title: The Active Support Unit – the integration of specialist palliative care into specialist oncology
Authors: Ilora Finlay Oncology and Palliative Medicine Cardiff university UNITED KINGDOM
Nicola Pease Velindre NHS Trust Cardiff UNITED KINGDOM

Background: In 1998 a review of inpatients in the 94 bed inpatient oncology centre revealed that many of the patients had palliative care needs and some were in the terminal phase of their illness, but referral processes delayed care and hence delayed discharge to home or hospice. The ASU was evaluated after a pilot six months and then formally evaluated by questionnaire to all consultant oncologists. It was re-evaluated after a further five years. The care of those patients with spinal cord compression (SCC) was rationalised by developing an early mobilisation pathway of care. Results: At initial evaluation all 11 consultants agreed the ward should continue; only one raised concern about complex ENT patients being on this ward. At subsequent evaluation continuation of the ward was supported by all the consultants and fundraising to upgrade the facility was approved. Evaluation of the SCC pathway showed early mobilisation without an increase in unstable spine complications.

Conclusions: The seamless integration of palliative medicine on ASU has resulted in a relative fall in patient complaints, an increased in expressions of gratitude from patients’ families and built on trust between the two specialties. It has fostered care pathway development and allowed a ward upgrade to build an ASU environment more suited to the combined oncology and palliative care needs of patients and families, despite a cut in the total hospital inpatient beds to 83 beds.

Poster N°: 314

Type of presentation: Poster
Poster session: First Group 29 May Thursday, 10.30 to 30 May Friday 13.00
Category: Research into the organization of services
Title: Improving Community Palliative Care
Authors: Stephanie Gomm Hospital Palliative Care Team Salford Royal Foundation NHS Trust UNITED KINGDOM
Background: A 3 year project to improve access to Community Palliative Care for the residents of Salford UK commenced in 2004 funded by Big Lottery Fund. The major elements were: to improve access to palliative care out of hours; single process of assessment; develop a patient and carer 24 hour advice line; enable development of skills to meet the palliative care needs of non-cancer patients. Methods: A project lead and multi-agency steering group established working parties to implement and evaluate the 3 year programme. Results: Palliative care medicines and drug packs are now stocked in 8 pharmacies, in hospital A & E department, and for the GP out of hours; car; with a patient information leaflet devised; 24 hour advice line used by 52 and patients and 75 carers annually; 25 syringe drivers purchased with training provided to community nurses and care home staff. Education programme provided to 400 staff with training needs identified by questionnaire for pain and symptom control, communication skills, bereavement and palliative care emergencies, and for cardiac, renal, respiratory and neurology topics. Overall 95% staff satisfaction. New links were established between community, hospice, hospital and social care teams, and strengthened between generalists and specialists. The maintenance of the improved knowledge base across the Health and Social Care Economy was achieved by production of non-cancer and palliative care education materials and by establishment of a specialist palliative care interest network (SPIN) for sustainability. Single assessment pilot by a health and social care team successfully implemented and rolled out across Salford. Conclusions: The outcome was enhanced multi-agency partnership working by use of a single assessment process, improving delivery of out of hours palliative care; access to 24 hour advice for patients and carers, and development of sustainable palliative care and non-cancer education.

Poster N°: 315

Type of presentation: Poster
Poster session: First Group 29 May Thursday, 10.30 to 30 May Friday 13.00
Category: Research into the organization of services
Title: Expert advice given in palliative care consultation
Authors:
Marijke Groot Kenniscentrum Palliatieve zorg (bedrijfeningheid PPP) UMC St Radboud NETHERLANDS
Lia van Zuylen Erasmus MC Rotterdam NETHERLANDS
Myrrha Vernooij-Dassen UMC St Radboud Nijmegen NETHERLANDS
Barbara van der Linden Zon Mw Utrecht NETHERLANDS
Ben Cruy UMC St Radboud Nijmegen NETHERLANDS
Annemiek Kuijm VUMC Amsterdam NETHERLANDS
Richard Grol UMC St Radboud Nijmegen NETHERLANDS

Background: This national multicentre study concentrates on the expert advice given by members of Palliative Care Consultation teams. This information is relevant to the future development of palliative care and the arrangement of the optimal composition of PCC teams. Study aims: determine the extent and nature of advice given in PCC and identify the factors influencing differences in advice given. Methods: Variables: 1) advice given was classified according to four general expert advice domains (pharmacological; providing information; direct patient care; advice to refer to other professionals; 2) consultation characteristics: problem domain; type of consultation; profession of the requesting care provider; profession of the consultant. Frequencies and proportions were analysed to assess the nature and extent of the advice given. Logistic regression analysis was used to determine the factors associated with the advice. Results: More than half of all the expert advice given concerned pharmacological advice; providing information was the second most frequent action. Over 10 percent of all actions concerned direct patient care. Significant relationships with expert advice in all four general domains were found for most of the elements of the consultation characteristics. Pharmacological advice was related to telephone consultations; GP s as requesting care provider; advice given by clinical or nursing home physicians; and problems in the physical/pharmacological domain. Advice to refer to other professional care providers was related to problems within the psychosocial- and organizational domain coming from requesting care providers other than GPs and advised by GPs, nurses or a multidisciplinary team. Conclusions: To optimize the Dutch model of PCC, choices with regard to PCC team composition and the type of consultation should be made, because these characteristics evidently result in different advice domains. Further research is needed to address issues on the level of patients as well as requesting care providers.

Poster N°: 316

Type of presentation: Poster
Poster session: First Group 29 May Thursday, 10.30 to 30 May Friday 13.00
Category: Research into the organization of services
Title: Transfer of cancer patients to palliative care services. A survey among Austrian oncologists
Authors:
Katharina Kierner Dept. of Internal Medicine I Palliative Care Unit AUSTRIA
Verena Gartner Palliative Care Unit, Department of Internal Medicine I, Medical University of Vienna v AUSTRIA
Herbert Watzke Palliative Care Unit, Department of Internal Medicine I, Medical University of Vienna Vienna AUSTRIA

Background: The awareness of palliative care services among oncologists has generally been increasing within the last decade. Nevertheless, data on the point of time at which palliative care services are involved in care of patients with advanced cancers are lacking. We therefore performed a survey among oncologists in Austria on the use of palliative care. Methods: A total of 785 medical, surgical or gynaecological oncologists were invited to participate in a case based survey in which the clinical course of a patient with primary metastatic breast cancer was described from the diagnosis until death. Oncologists were asked to indicate at what point in time they would inform the patient about the incurability of her disease, about the existence of palliative care services and at what time they would transfer her to a palliative unit or a hospice. Results: 176 oncologists (23%) of whom 67% would inform the patient about her prognosis at the time of diagnosis. Only 5% would involve palliative care services at that point. The majority of physicians would involve palliative care services when the patients Karnovsky index (KI) was 70% or lower and hospice services when the KI was < 50%. Information on advance directives was provided by 74% of oncologists. Reasons for not including palliative care were systematically evaluated and included among others “fear from destroying patient’s hope”, “not now but later”, “not available”. Conclusions: Our data show, that palliative care services are used by Austrian oncologists at a rather late stage in the clinical course of a patient.

Poster N°: 317

Type of presentation: Poster
Poster session: First Group 29 May Thursday, 10.30 to 30 May Friday 13.00
Category: Research into the organization of services
Title: Continuity of Care for Community Palliative Services
Authors:
Frances Legault School of Nursing University of Ottawa CANADA
Sheila Bauer Champlain Local Health Integration Network Ottawa, Ontario CANADA
Lynda Weaver SCO Health Service Ottawa, Ontario CANADA
Pippa Hall University of Ottawa Ottawa, Ontario CANADA
Liliane Locke SCO Health Service Ottawa, Ontario CANADA
Kevin Brazil McMaster University Hamilton, Ontario CANADA
Barbara Cameron Champlain Local Health Integration Network Ottawa, Ontario CANADA

Background: The aim of this study was to implement and evaluate multiple interventions (service planning, physician referral and support, and communication) to optimize continuity of care in a community-based palliative care program in Ottawa, Canada. Three types of continuity were evaluated: 1) Management Continuity (consistency of care and responsiveness to changing needs of the client and family caregivers); 2) Relational Continuity (ongoing client-provider relationships and consistency of provider); and 3) Informational Continuity (efficient and effective transfer of information and accumulated knowledge of the client). There were 200 palliative home care client participants living in urban and rural communities. Methods: A case study research design was utilized to systematically collect and synthesize information to provide a complete description of the contribution of the specific interventions on continuity of care. Data collection included quantitative and qualitative approaches incorporating six primary sources: clients and family caregivers, home care nurses, family physicians, CCAC case managers, program documents, and client charts. Results: Findings pertain to challenges in coordination of services, trends in communication, care, specialist and generalist models of physician practice, and evaluation of the Chart-in-the-Home. Conclusions: The results of this project provide a practical approach to optimize continuity of care for community palliative services in Canada. The proposed reorganization of services can strengthen collaborative relationships among health care providers through effective service planning and coordination, increasing family physician referral and support, and improving communication. Findings also illustrate how to apply direct measures of continuity of care from the client/caregiver perspectives, and how to measure continuity over time across organizational boundaries. (Funded by the Canadian Institutes of Health Research and the Ontario Ministry of Health.)

Poster N°: 318

Type of presentation: Poster
Poster session: First Group 29 May Thursday, 10.30 to 30 May Friday 13.00
Category: Research into the organization of services
Title: Establishment of an advanced nurse practitioner role within a specialist palliative care team: an Irish perspective
Presenting author: Eileen Mc Guigan
Authors:
Maura Mc Donnell Specialist Palliative Care HSE Dublin North East IRELAND
Dominic ÓBrannagáin HSE Dublin North East Drogheda, Co. Louth IRELAND
Eileen Mc Guigan HSE Dublin North East Drogheda, Co. Louth IRELAND
John Mc Evoy Dundalk Institute of Technology Dundalk, Co. Louth IRELAND

Purpose: To determine the need for the establishment of an advanced nurse practitioner (ANP) in Specialist Palliative Care and the feasibility of introducing and integrating the role within an existing interdisciplinary palliative care team. Background: Currently there are 70 ANP’s accredited in Ireland. However, there are few examples of such roles within palliative care. ANP’s are defined as; ‘autonomous, experienced practitioners who are competent, accountable and responsible for their own practice’. The present study describes the action research process employed to inform and direct the planning and implementation of the ANP role within an Integrated Specialist Palliative Care Programme. Method: The project adopted a ‘research utilisation model’ to critically address the desirability and feasibility of practice change. Findings: The project identified a number of factors reflected in the literature facilitating or inhibiting the process of developing and implementing the ANP role. Conclusion: There is a need for a multidisciplinary collaborative approach to the planning development and implementation of such roles. Care must be taken to alleviate fears among the other team members affected by the implementation of the new role. Careful consideration needs to be given to how the organisational governance can facilitate and enable the integration of the ANP into the service whilst providing support for the person in the role. Facilitating factors for this project included strong medical support and a committed steering group who provided structure and direction by having a clear vision. The contributions and impact advanced nurse practice may have within the service was effectively communicated with all stakeholders affected by this new role development. Financial support acknowledged from the National Council for the Professional Development of Nursing & Midwifery.

Poster N°: 319

Type of presentation: Poster
Poster session: First Group 29 May Thursday, 10.30 to 30 May Friday 13.00
Category: Research into the organization of services
Title: Narratives surrounding emergency medical care for patients at the end of life in the community: a feasibility study of a new method
Authors:
Daniel Munday Warwick Medical School Health Services Research Institute UNITED KINGDOM
Marion Corroon Coventry PCT Coventry UNITED KINGDOM
Frances Griffiths Health Services Research Institute, Warwick Medical School Coventry UNITED KINGDOM

Background: At the end of life most patients prefer to remain at home but may need help from healthcare professionals (HCP) at any time, day or night. Problems may arise during these episodes of care and patient and HCP perspectives should be sought to obtain a full understanding of them. Little research in this area has been reported. Research aims: To assess the feasibility of interviewing patients, carers and HCPs about episodes where urgent community clinical care for patients at the end of life is needed, including: usefulness of data gathered, access to participants and acceptability of the process. Methods: Eligible patients were invited to participate by a community nurse following an episode of urgent care. Semi-structured interviews were conducted with patients/careers and HCPs after receiving consent from patients for them to be contacted. Interviews explored events before, during and after the episode and relevant contextual factors. Interviews were recorded, transcribed and analysed using a critical incident technique. Collected narratives were compared. Feasibility notes were made throughout the study. Results: Six episodes were explored (22 interviews). Presenting problems were pain (5); nausea and vomiting (2). Variation in accounts given by patients and HCPs emerged even for ‘simple’ problems. Major themes included: patients using their experience to select the service/HCP to call; satisfaction with a personal approach; and attempts to avoid hospital admission. HCPs reported busy-ness and lack of information as frustrating good care. All patients were keen to be interviewed; some HCPs were reluctant. Access to HCPs was improved by interviews being conducted by a research nurse rather than a non-clinical researcher. Conclusions: Useful insights into urgent community care may be gained by this method. Clinician-researchers may achieve better access to HCPs by using their clinical experience to negotiate access. Further research is planned. Funding: Warwick Primary Care Research Network.

Poster N°: 320

Type of presentation: Poster
Poster session: First Group 29 May Thursday, 10.30 to 30 May Friday 13.00
Category: Research into the organization of services
Title: Integrated shared care between general practice, local hospital and a specialised palliative care team for terminally ill cancer patients
Authors:
Trine Brogaard Research Unit for General Practice Aarhus University Aarhus DENMARK
Anders Bonde Jensen Dept. of Oncology, Aarhus University Hospital Aarhus DENMARK
**Frede Olesen Research Unit for General Practice, Aarhus University**
**Mette Ashbjørn Neergaard Research Unit for General Practice, Aarhus University**

**Background:** International research shows that the majority of terminally ill cancer patients wish to die at home. At present there are no Danish data identifying patients wishes regarding place of death and end of life care. About 25% of cancer patients in Denmark die at home. The GP has traditionally had the full responsibility for the palliative care of terminally ill cancer patients. In recent years changes have been made to the organization of palliative care: Some hospitals have set up specialized palliative care teams and hospices have been established in some areas. Recent research defines a problem when it comes to communication between the hospital and general practice when the patient is being discharged. This is often done in away that can cause the patient to feel “left in limbo”, especially if it is not completely clear to the patient and his or her relatives who has the responsibility for the palliative care. **Method:** The project will be based on a clinically controlled randomised trial of 2 different organizations (groups B & C) of palliative care versus usual care (group A). A) Usual discharge with regular discharge letter to the GP; B) Discharge with referral to a specialist palliative care team. This is a patient-centred shared care model, in which the palliative team helps plan the patient’s treatment and care; C) Discharge with extra effort put into improving the communication between the hospital and the GP. This is a shared care model, where focus is on supporting the primary health care professionals. **Results:** Data collection for the usual care group (A) will commence in February / March 2008. Primary endpoints will be patients and relatives wish fulfilled regarding preferred place of death of the patient. **Conclusions:** There will be no conclusions ready for presentation in May 2008. However, we will have experiences with the study design, development of questionnaires and inclusion of patients, which might be of interest to other researchers.

**Poster N°: 321**

**Type of presentation:** Poster
**Poster session:** First Group 29 May Thursday, 10.30 to 30 May Friday 13.00
**Category:** Research into the organization of services
**Title:** Symptom Control Effectiveness in Advanced Cancer Patients by Spanish Palliative Care Team: National-wide study
**Authors:**
Joseph Porta-Sales Palliative Care Unit, 5–2 Institut Català d’Oncologia SPAIN
Jose Espinoso-Rojas Institut Català d’Oncologia L’Hospitalet. Barcelona SPAIN
Victoria Mañàs-Izquierdo Institut Català d’Oncologia L’Hospitalet. Barcelona SPAIN
Albert Tuca-Rodriguez Institut Català d’OncologiaL’Hospitalet. Barcelona SPAIN
Xavier Gómez-Batiste Institut Català d’Oncologia L’Hospitalet. Barcelona SPAIN
Francisco Javier Pérez Martín Institut Català d’Oncologia L’Hospitalet. Barcelona SPAIN
Antonio Pascual-Lopéz Hospital de la Santa Creu i Sant Pau Barcelona SPAIN

**Background:** Aim: To know the effectiveness in alleviation of a set of significant symptoms in far-advanced cancer patients cared by Spanish palliative care teams (PCT). Patients were recruited when medical attention was requested for the first time in their illness, from any PCT & fulfill inclusion criteria. Signed patient Informed consent was obligatory. PCT were suitably stratified from the Spanish Directory of Palliative Care. **Methods:** Prospective, multi-centered study, 14 days follow-up with evaluation points at day 0, 7 & 14. Patients were enrolled consecutively, symptoms were assessed using a Verbal Rating Scale (0–10) – VRS [pain (basal, at crisis, No pain crisis per day, average), anorexia, nausea/vomiting(N/V), constipation, insomnia, dyspnoea (at rest, at exertion), anxiety, depression] accordingly the patient perception of the previous 24 hours. Method statistical design: For the main study purpose symptoms were grouped as to be % 4 or > 4 in VRS and Wilcoxon signed rank test was used to compare related qualitative variables. The a value was established as 0.05 for all the statistics tests. **Results:** PCT participants were 105 enrolled 265 patients, being assessable 203. Men 61.1%. Mean age 72.2 Years-old. ESS II-III 50% day 0 day 7 day 14 p N° ENV <4 ENV <3 ENV <4 % % % Pain average 173 68.8 90.2 89.6 0–7d(<.0001); 7–14 d(NS) Anorexia 189 50.3 67.2 0–7d(<.0001); 7–14 d(NS) N/V 170 87.6 95.9 97.7 0–7d(<.0001); 7–14 d(NS) Constipation 199 65.8 83.4 92 0–7d(<.0001); 7–14d (.001) Insomnia 196 64.8 82.7 86.7 0–7d(<.0001); 7–14d (NS) Dyspnoea 167 58.7 70.7 75.4 0–7d(<.0001); 7–14 d(NS) Anxiety 186 59.1 79 84.4 0–7d(<.0001); 7–14 d (.025) Depresion 181 60.9 71.3 76.8 0–7d(<.001); 7–14 d (012). **Conclusions:** Participant PCT are effective in obtaining a quick (at 7th day) & steady symptom alleviation with similarly results independently where treated; home or hospital.

**Poster N°: 322**

**Type of presentation:** Poster
**Poster session:** First Group 29 May Thursday, 10.30 to 30 May Friday 13.00
**Category:** Research into the organization of services
**Title:** The nursing contribution to palliative care in a community hospital
**Authors:**
Julie Steers Faculty of Health & Wellbeing Sheffield Hallam University UNITED KINGDOM
Louise Breerton Sheffield Hallam University Sheffield UNITED KINGDOM
Christine Ingleton University of Sheffield Sheffield United Kingdom

**Background:** UK health policy recommends palliative care for all using a ‘needs-based’ model. Evidence suggests that most community hospitals have the resources to provide general palliative care. These hospitals are complex organisations that view nurses as vital to care provision, since there is no resident doctor, yet, little is known about the contribution they make to palliative care in this setting. **Aim:** To explore the nature of the nursing contribution to those with life-limiting illness in a community hospital. **Methods:** A conceptual framework including the palliative care approach and Chronic Illness Trajectory Framework informs the study. Constructivism provides the structure to explore the experiences of key stakeholders, using multi-method case study design. Data collection included participant observation, informal and formal conversation and document review. Constructivist grounded theory guides the iterative approach to data collection/analysis. ‘Framework’ facilitates the emerging construction through within-case and cross-case analysis. Data analysis will be completed early 2008. Sample: Nurses agreed criteria to theoretically sample ‘cases’. A case is the person with life-limiting illness and those directly involved in their care i.e. nurse/s and carer. 17 patients were sampled: 9 recruited as ‘cases’ and 7 explored in-depth. **Results:** The nursing contribution is described as Supportive, Kind, Respectful care. Achieving this is dependent upon experiences in three constructs, environment, nursing activities and knowing the person. ‘Knowing the person’ is the central construct that influences all others. **Conclusions:** The nursing contribution to those with life-limiting illness in this community hospital is a dynamic construct responsive to patient need irrespective of diagnosis. However, the complexity of care in this setting has resource implications to ensure the nursing contribution to all those with life-limiting illness is not undermined.

**Poster N°: 323**

**Type of presentation:** Poster
**Poster session:** First Group 29 May Thursday, 10.30 to 30 May Friday 13.00
**Category:** Research into the organization of services
**Title:** An exploration of how the hospice multidisciplinary team perceives the provision of spiritual care
**Authors:**
Ian Stirling Chaplaincy Tha Ayrshire Hospice UNITED KINGDOM
Title: Hospice at Home: Inequalities in referrals to a Hospice at Home Service between two socio-economically distinct areas of Manchester. UK
Presenting author: Charlotte Wilson
Authors:
Charlotte Wilson Institute of Learning & Development St. Ann’s Hospice UNITED KINGDOM
Charlotte Wilson University of Manchester, School of Nursing, Midwifery & Social Work Manchester UNITED KINGDOM
Ann-Louise Caress University of Manchester, School of Nursing, Midwifery & Social Work Manchester UNITED KINGDOM
Gunn Grande University of Manchester, School of Nursing, Midwifery & Social Work Manchester UNITED KINGDOM

Background: Whilst research has repeatedly shown that patients of low socio-economic status are less likely to be referred to palliative home care, it is unclear, whether poor service availability in deprived areas (Inverse Care Law) or referral bias affects disadvantaged groups. Methods: Data was collated from the National Census Data 2001, which provided socio-demographic indicators on electoral wards in Salford and Trafford (n=41), and hospice referral data (2004–7), of patients’ postcodes was matched to ward level. Results: Statistically significant correlations (Pearson) at ward level were detected between high referral rates and lower; income domain (less deprived), multiple deprivation, household deprivation, economic inactivity, social class, education and public housing (p<.001). Positive correlations were found between high referral rates and higher; economic activity, social class, moderate/high education, private home ownership, & pensioner households (p<.001). Effect sizes suggest that Census indicators for household deprivation (r=-.65), multiple deprivation (r=-.62), income (r=-.58) & outright home ownership (r=-.60) have the strongest effect on referrals independently. Modelling using multiple linear regression indicates that multiple deprivation is the strongest predictor of referrals (p<.001; å -0.62; r^2.39) explaining 39% of variation in referrals.

Conclusions: Whilst not implying a direct relationship between ecological and individual levels, results indicate that inequalities of access to Hospice at Home are related to deprivation indicators at the population level. Further research is required to identify barriers to equitable referral and the effective allocation of resources. [Source of Funding: The British Academy]

Poster N°: 325

Type of presentation: Poster
Poster session: First Group 29 May Thursday, 10.30 to 30 May Friday 13.00
Category: Research into the organization of services

Title: Case Management in palliative care in Germany

Presenting author: Lukas Radbruch
Authors:
Michael Wissert Department of Social Science Univ. of Applied Sciences Ravensburg-Weingarten GERMANY
Martina Kern Department of Palliative Medicine, Malteser Hospital Bonn GERMANY
Lukas Radbruch Department of Palliative Medicine, RWTH Aachen University Aachen GERMANY
Gerda Graf Hospice Sophienhof Dären GERMANY
Monika Müller ALPHA Northrhine Bonn GERMANY
Raymond Voltz Department of Palliative Medicine, University of Cologne Cologne GERMANY

Background: Patients needing palliative care are offered a wide range of services and options in the German health system. However, access is often hampered by lack of coordination or high administrative burden. Case management (CM) would offer a coordinated approach to overcome these problems. Aim: A model course on case management was started in 2007. We report first results of the case management activities of the participants at the beginning of the course. Methods: Participants of the course completed retrospectively a questionnaire on the last 5 patients they had accompanied. Participants were asked to document typical case

Poster N°: 324

Type of presentation: Poster
Poster session: First Group 29 May Thursday, 10.30 to 30 May Friday 13.00
Category: Research into the organization of services

Title: The History of Palliative Care in Norway

Authors:
Kjell Erik stromskag Dep opf Anesthesiology Molde Hospital NORWAY

Background: The aim of this study is to elucidate the development of palliative care in Norway. Methods: The methods used are studies of literature like books and articles published both in newspapers and professional journals. In addition oral interviews and questionnaires have been done Results: As in the other Nordic countries, the history of palliative care in Norway is relatively short. The beginning in our country was a catholic organization in Oslo called “Fransikushjelpen”, which voluntarily offered help to people who wanted to die in their homes. This was inspired by the hospice movement in Great Britain. The pioneer period in the Nordic countries was around 1980. In Norway it started with the organization of the – “Counsel for critical ill and dying patients”, which were established in most hospitals during the 1980s. The journal “Omsorg” was published from 1984. The period had its pioneers, and they arranged conferences every year with top international experts. In the next period, the period of foundation, in the 1990s, palliative units were established in St. Olavs Hospital in Trondheim, St Sunivas Hospice in Bergen and Lovisenberg Hospice in Oslo. National Centres for palliative medicine were organized. In 1993 Norway got the first professor in palliative medicine. This became the beginning of the period of organization which also gave us the two associations of palliative care; The Norwegian association of palliative medicine and The Norwegian Palliative Association. The next period, from year 2000, is a period of consolidation. The governmental support was increasing, and a Nordic education for medical specialists was established.

Conclusions: Conclusion: Palliative medicine as it appears in Norway today, fulfills many of the common criterias of a medical specialty, as an educational system, academic positions, research (projects), a journal and an association; but still it is not an approved medical specialty in Norway.
management activities for the time points of initiation and end of treatment for these patients. **Results:** Participants (n=20) had a background of nursing (12), social work (3), psychology (2) or other (3). A total of 88 patients were documented (mean age 60 years, 45% men, 55% women). Participants categorized their work as case management for 75 patients, counselling for 5 patients and provision of information for 5 patients (ND=not documented 3 patients). Nursing allowance was initiated by CM in 31% of patients and by others in 2% (ND 67%). Provision of medical appliances were initiated by CM for 2% of patients, suggested but not realized for 6% and initiated by others for 25% of patients (not documented 67%). CM ended with the death of the patient (66%), discharge or transfer (21%) in most cases, and only rarely because CM assignments had been completed (6%) or patients withdrew consent (3%, ND 4%). **Conclusions:** Some areas of CM such as provision of medical appliances were not performed by the participants, but left to others. This may point to areas of neglect, but could also relate to workflow procedures already well established in palliative care. Subsequent evaluation of performance of participants during and at the end of the CM course will be used to test these questions in more detail.

**Poster N°: 327**

**Type of presentation:** Poster  
**Poster session:** Second group 30 May Friday 13.30 to 31 May Saturday 13.30  
**Category:** Audit & quality control  
**Title:** Benchmarking the use of opioids in the last days of life: what are appropriate outcomes to compare?  
**Authors:** Milind Arolker Palliative Care Team Leeds General Infirmary UNITED KINGDOM  
Alpna Chauhan Hayward House Specialist Palliative Cancer Care Unit, Nottingham University Hospitals NHS Trust Nottingham UNITED KINGDOM  
Andrew Wilcock University of Nottingham Nottingham UNITED KINGDOM  
Michael Bennett St. Gemma’s HospiceLeeds UNITED KINGDOM

**Background:** Due to growing public and medicolegal interest, clinicians may have to demonstrate that their use of opioids at the end of life is not excessive. A marked increase has been defined as >3-fold increase over the last week of life representing a change in oral morphine dose of >60mg. To explore this further, practice was compared in two specialist palliative care units (PCUs) in the UK. **Methods:** Patients with cancer receiving regular ± prn strong opioids in the first 24h of admission and last 24h before death were retrospectively surveyed. Opioid doses were expressed as the oral morphine equivalent (O ME) using identical potency ratios. Mean (SD) and median (range) doses were calculated and the change in dose expressed in morphine and as fold-change, to the nearest 0.25. **Results:** Of 100 and 50 consecutive deaths in the two PCUs, 72 and 26 patients respectively received regular ± prn opioids throughout their admission (Table). Age (mean 70 years) and duration of admission (median 9–10 days) were similar. There were differences in sex (56% vs. 35% males) and pattern of opioid use (e.g. morphine 48% vs. 38%). PCU, No. of patients: Nottingham, 72 Leeds, 26 Dose in 1st 24h (mg) Mean (SD) 245 (409) 152 (271) Median (range) 75 (15–2100) 60 (15–1300) Dose in last 24h (mg) Mean (SD) 303 (458) 241 (282) Median (range) 135 (15–2340) 98 (12–910) Change in dose (mg) Mean (SD) 50 (235) 89 (262) Median (range) 30 (735–9290) 41 (715–865) Change in dose (fold change) Mean (SD) 2.0 (1.25) 2.75 (4) Median (range) 1.5 (0.25–5.5) 1.75 (0.25–20.25) Number (%) exceeding >3-fold increase: 7 (10) 5 (19). **Conclusions:** A number of variables will influence the dose of opioids used at the end of life making comparison between PCUs difficult. However, despite differences in pattern of opioid usage, we found similar median fold changes in dose. Further comparison with other PCUs is required but the median fold change in dose may be the most appropriate benchmark of opioid use.

**Poster N°: 328**

**Type of presentation:** Poster  
**Poster session:** Second group 30 May Friday 13.30 to 31 May Saturday 13.30  
**Category:** Audit & quality control  
**Title:** Defining ‘Palliative Sedation Therapy’ – An audit of sedating drugs used at the end of life  
**Authors:** Milind Arolker Palliative Care Team Leeds General Infirmary UNITED KINGDOM  
Colin Campbell St. Catherine’s Hospice Scarborough UNITED KINGDOM  
Michael Bennett St. Gemma’s HospiceLeeds UNITED KINGDOM

**Background:** Wide variation exists in defining the use of sedating drugs at the end of life. De Graeff and Dean recommend the term ‘Palliative Sedation Therapy’ (PST): ‘the use of specific sedative medications to relieve intolerable suffering from refractory symptoms by a reduction in patient consciousness’ and describe standards for using medications to achieve somnolence, stupor or coma at the end of life. We audited the use of and indications for sedating drugs in a hospice against the standards recommended. **Methods:** Retrospective audit of 50 consecutive inpatient deaths in a 32-bedded hospice. Data analysis using Microsoft Excel. Intended sedation level and indication determined by examination of documentation and drug record. **Results:** 47/50 (94%) of patients received Midazolam, 4/50 (8%) required Midazolam with Levomepromazine, and 1/50 (2%) required additional phenobarbitone. In the final 24hrs of life, 5/50 (10%) required Midazolam prn alone, 39/50 (78%) required it via syringe driver. Median dose of Midazolam prescribed in the final 24hrs: 27.5mg (interquartile range: 15–42.5mg, maximum: 100mg); higher doses required in younger patients. Agitation and restlessness were the commonest indications (51%), then delirium (18%). Remaining indications were less frequent (10%, in descending order): dyspnoea, mental distress, seizure prophylaxis, nausea and vomiting, and one catastrophic death. Sedating drugs were titrated gradually in proportion to relief from distress, with only 3 patients requiring deliberate deepening of sedation further than stupor (for refractory agitation, over 1–5 days). **Conclusions:** As with De Graeff and Dean’s findings, delirium and terminal restlessness/agitation were the commonest indications, but we found midazolam used in preference to antipsychotics. We similarly found that deep sedation was required infrequently. We would favour the definition of, and standards for PST be restricted to the rare, difficult situations requiring deep sedation.
were recruited after cessation of active oncology treatment. Each pt and his family were interviewed using surveys which provide us with information regarding their preferences. Accordingly, letters to the community nurse and to the family physician were sent with our primary recommendations on palliative care continuation. A social worker, already familiar with the pt, provided psycho, socioeconomic support during this traumatic period and acted as a link between the pt, his family and the hospital. Data analysis was performed by descriptive statistics. The calculation of relationships between variables was done by means of correlation or non parametrical statistics (Chi square). 90% of pts prefer to die at home initially, but on 70% actually did so. Results: The most important factors influencing their decision were: cultural beliefs, capability of community services to supply palliative care, family support and fears as to the ability to provide adequate care, socioeconomic and employment status of the pt and family, housing condition, as well as the possibility to bring in an outside caregiver. More women had a tendency to be hospitalized than men. Conclusions: Feelings regarding death and dying play a significant role for pt and their family when deciding about end of life care. These must be assessed and handled in an appropriate and sensitive manner when supporting them in making these decisions. In order to provide adequate care for pts who wish to die at home, around the clock facilities must be provided in the community that will give the family and cares peace of mind and confidence that their loved one gets the best of care.

Poster N°: 330

Type of presentation: Poster
Poster session: Second group 30 May Friday 13.30 to 31 May Saturday 13.30
Category: Audit & quality control
Title: Supportive care needs of lung cancer patients in North Glasgow, Scotland
Authors:
Deans Buchanan Palliative Medicine NHS Tayside UNITED KINGDOM
Pamela Levack NHS Tayside Dundee UNITED KINGDOM
Alastair Thompson University of Dundee Dundee UNITED KINGDOM
Lee Baker University of Dundee Dundee UNITED KINGDOM
Robert Milroy Stobhill General Infirmary Glasgow UNITED KINGDOM

Background: Lung cancer is a disease of increased symptom burden, psychosocial distress and high mortality. Many of the supportive needs of lung cancer patients are unrecognised or unmet. In Scotland, lung cancer is diagnosed in over 4000 people each year and accounts for over 25% of cancer related deaths. With low one year survival and high care needs, palliative issues are often relevant from time of diagnosis. This study used an adapted version of the validated palliative outcome scale (POS) and a respiratory symptoms questionnaire to quantify the physical, psychosocial and practical needs of ambulatory patients attending a lung cancer clinic at Stobhill Hospital, North Glasgow, Scotland. Methods: 172 patients completed a questionnaire incorporating the adapted POS (possible score 0–42) and respiratory symptom questions (possible score 0–12). Responses were data based with further descriptive data obtained from case note review. Results: 172 questionnaires were completed. 2 were excluded as they were not diagnosed with lung cancer. n=170, 54.1% were female (92) and 45.9% male (78) Mean age of patient 69.4 years (range 45 to 90 years). Patient rated performance status median of 2 Mean POS and respiratory scores (9.57 & 7.80 respectively). The most important factors influencing their decision were: cultural beliefs, capability of community services to supply palliative care, family support and fears as to the ability to provide adequate care, socioeconomic and employment status of the pt and family, housing condition, as well as the possibility to bring in an outside caregiver. More women had a tendency to be hospitalized than men. Conclusions: Feelings regarding death and dying play a significant role for pt and their family when deciding about end of life care. These must be assessed and handled in an appropriate and sensitive manner when supporting them in making these decisions. In order to provide adequate care for pts who wish to die at home, around the clock facilities must be provided in the community that will give the family and cares peace of mind and confidence that their loved one gets the best of care.

Poster N°: 331

Type of presentation: Poster
Poster session: Second group 30 May Friday 13.30 to 31 May Saturday 13.30
Category: Audit & quality control
Title: Retrospective Audit of Blood Transfusions in a Specialist Palliative Care Unit
Authors:
Margaret Clifford Marymount Hospice St Patrick’s Hospital (Cork) Ltd IRELAND
Tony O’Brien St Patrick’s Hospital (Cork) Ltd Cork IRELAND
Natasha Michael St Patrick’s Hospital (Cork) Ltd Cork IRELAND
Lorraine Lester St Patrick’s Hospital (Cork) Ltd Cork IRELAND
Marie Murphy St Patrick’s Hospital (Cork) Ltd Cork IRELAND

Background: In the palliative care population symptoms are complex and responses to blood transfusion variable. This study aims to develop guidelines for appropriate blood use, and to ensure cost-efficient cross matching. Methods: We retrospectively audited all patients who were transfused in a specialist palliative care unit from 01/03/07 – 31/08/07. Quality standards were set. Data from medical and nursing notes, blood bank and haematology laboratory records was recorded and analysed. We looked at indication for transfusion, pre and post transfusion assessments and information regarding cross matching. Results: Over the study period, 20 patients were transfused a total of 58 units, comprising 26 transfusion episodes. The indications were as follows: Symptomatic anaemia 61%; Required pre chemo/radiotherapy 8%; Other 4%; Not documented 27%. Review of transfusion history and benefit from previous transfusions was documented in 12%. Transfusion produced symptomatic benefit in 42%, no symptomatic benefit in 23%, with no documentation of outcome in 35%. 30% of patients had blood cross-matched as an emergency (thus incurring extra costs) which was an oversight in 16.6% of cases, explained in 66.6%, and unclear in 16.6%. 23% of non-urgent transfusions occurred at weekends while 4% were commenced outside routine hours. The average cost of transfusion per patient was € 1084.87. Conclusions: This audit highlights the need for pre and post transfusion assessment including review of benefit from any previous transfusions and symptom benefit post transfusion. It appears that there is a trend towards an increased number of transfusions, which has budget implications. Emergency cross matching incurs increased costs. The majority of this cost was justified as it allowed for earlier patient discharge. The decision to transfuse a patient who is terminally ill remains complex and requires an individualistic approach. This audit highlights the need for clear clinical guidelines.

Poster N°: 332

Type of presentation: Poster
Poster session: Second group 30 May Friday 13.30 to 31 May Saturday 13.30
Category: Audit & quality control
Title: The Last days of life: a retrospective review of deaths over a six month period
Authors:
Kathleen Cronin Palliative Medicine St. Luke’s Hospital, Dublin IRELAND
Maeve O’Reilly St. Luke’s Hospital Dublin IRELAND
Marie Twomey St. Luke’s Hospital Dublin IRELAND

Background: In order to care for the dying patient, it is essential to ‘diagnose dying’. Evidence based guidelines now exist to help with the care of dying patient. These include guidelines for symptom control, psychological support, and bereavement care. This reviewed all deaths in a six month period in a dedicated radiation oncology institution. The focus was clinical management of the dying patient in an acute medical setting. Methods: A retrospective chart review of all deaths which occurred from January 1, 2007, to July 1, 2007, was completed. Patient demographics, cancer diagnosis, and time interval from admission to death were recorded. It was
noted whether the patient’s death was expected, a discussion occurred with the family, and cardiac resuscitation was recorded in the medical notes. The time interval between death and the administration of chemotherapy, radiotherapy, phlebotomy, artificial nutrition, supplemental fluids, and antibiotics were recorded. It was noted whether non-essential drugs were discontinued and appropriate drugs were converted to a subcutaneous route, including ‘as required’ medication. The involvement of pastoral care and social work was noted. Results: This is a work in progress. It is to evaluate the management of the dying patient in our institution and whether it follows best practice. Conclusions: This review will give a baseline for further multi-professional education for care for the dying patient and whether a care pathway needs to be considered.

Poster N°: 333

Type of presentation: Poster
Poster session: Second group 30 May Friday 13.30 to 31 May Saturday 13.30
Category: Audit & quality control
Title: Constipation in palliative care patients: Audit of Assessment and Management
Authors:
Joanne Dronay Palliative Medicine Royal Marsden Hospital UNITED KINGDOM
Anna-Marie Stevens Royal Marsden Hospital London UNITED KINGDOM
Julia Riley Royal Marsden Hospital London UNITED KINGDOM

Background: Treatment of constipation in cancer and palliative care patients is generally poor. There is no constipation assessment tool which has been specifically designed, validated and in general use in cancer and palliative care patients. Similarly there is no gold standard for the management of constipation in palliative care patients. Aims: The aim of this audit was to evaluate the documentation of constipation assessment and management in nursing and medical notes. Methods: This was a retrospective audit of medical and nursing documentation of 42 hospice inpatients, randomly selected from a 6 month period. The most recent inpatient clinical episode was analysed. Data on 3 key areas were recorded: (1) documentation of assessment of bowel function (2) identification of constipation as a symptom and (3) documentation of laxative use. Results: Patient’s usual bowel pattern was documented in 60% of cases. Frequency of bowel movements was recorded in 11/40 patients, consistency of stool in 8/40 patients and the need to strain at stool in 1/40. 50% of cases had none of these assessments documented. 74% (31/40) patients were documented as being constipated and 4 as being not constipated. There was no documentation at all about being constipated or not in a further 4 cases. 69% of patients were taking laxatives on admission to the hospice. 29% (9/31) of patients who were documented as being constipated did not have any changes made to their laxatives. Of the 21 patients who did have changes made to their laxatives, 11 cases (52%) had the response to their laxatives documented. Conclusion: This data gives an opportunity for benchmarking practice with other hospices/units. Constipation is a significant problem in palliative care hospice patients. Documentation of assessment and management of constipation is currently inadequate and further work is needed to identify an appropriate assessment tool.

Poster N°: 334

Type of presentation: Poster
Poster session: Second group 30 May Friday 13.30 to 31 May Saturday 13.30
Category: Audit & quality control
Title: Fentanyl via different routes of administration for symptom control
Authors:
Lindsay Farrant Palliative Medicine OLOL Drogheda IRELAND
Wilhelm Freiherr von Hornstein Specialist Palliative Care Service, Meath Navan IRELAND

Background: Problem: Pain and dyspnoea in patients with opioid receptive response, but unacceptable side effects. Is fentanyl a suitable and practical alternative to morphine and other opioids? Fentanyl is a lipophilic selective μ receptor agonist, that quickly crosses the blood brain barrier. Method: A review of patients who have been treated using fentanyl was made. Parameters assessed included: indication, previous opioid use and reason for switch, route of administration, renal function, albumin level, age and demographics, volume restrictions, duration of effect, toxicity and side effects. Results: A selection of some of the 18 patients reviewed. A 92 year old woman with CML, renal impairment and toxicity on oxycodone 20mg BD, was successfully treated with fentanyl 100mcg buccally prn and later required fentanyl up to 400mcg/24hr (IV due to very low platelets and inability to administer s/c). An 86 year old woman with end-stage, inoperable gangrene and osteomyelitis of her right foot, renal impairment, and poor pain control on Durogesic D-Trans Fentanyl 25mcg patch was well pain controlled on CSCI of fentanyl 1200mcg/24hr and a dose of 200mcg s/c, later increased to 300mcg s/c pre-dressing change. A 68 year old man with end stage Prostate Carcinoma, bilateral hydrenephrosis and renal failure, in significant pain and unable to verbalise, responded well to fentanyl 50mcg stat and was started on fentanyl per CSCI and titrated upwards to effect. Conclusions: Preliminary review indicates that fentanyl is both effective and practical to use, particularly for pain control. It is useful for patients with impaired renal function and where there is incident pain. Toxicity was not frequently encountered in our patients. Besides the classical transdermal route, buccal and subcutaneous routes are useful and interesting methods of administration of fentanyl, allowing a more individualised approach.

Poster N°: 335

Type of presentation: Poster
Poster session: Second group 30 May Friday 13.30 to 31 May Saturday 13.30
Category: Audit & quality control
Title: Patient Safety And Change Of Shift On A Palliative Medicine Unit
Presenting author: Ruth Lagman
Authors:
Julie Fetto The Harry R. Horvitz Center For Palliative Medicine The Cleveland Clinic U. STATES
Goldie Grewal The Cleveland Clinic Cleveland U. STATES
Joanne Finelli The Harry R. Horvitz Center For Palliative Medicine, The Cleveland Clinic Cleveland U. STATES
Catherine Costello The Harry R. Horvitz center For Palliative Medicine Cleveland U. STATES

Background: Patient falls are common on a palliative unit. During a 30-minute period of time at shift change, there are few caregivers in close proximity to patient rooms due to off-going info-related reporting procedures. This is one of the times of greatest risk for falls. Methods: In November 2006, the report procedure at change of shift for patient care nursing assistants (PCNA) was altered to one-on-one at bedside. Information regarding fall risk, verification of bed alarm, patient identification stickers for fall risk, personal care and safety issues were included in report. PCNA safety rounds included acquisition of vital signs within 30 minutes of shift change. Falls were compared using the number of falls per 1000 patient days. Results: The fall rate dramatically declined from 9.45/1000 patient days in November 2006 to 2.96 in May 2007 to <1 July 2007. Time to call light response decreased 71% from November 2006 to April 2007 and has been sustained through July 2007. Patient satisfaction with pain control rose from 70th percentile to the mid-80th percentile from January to May 2007 (National HCAPS Benchmark is 59%). Conclusions: Maintaining a PCNA presence on the unit during shift change has multiple benefits; reductions in falls, greater response to patient needs and greater satisfaction with pain control. It is important to note that satisfaction with pain management improved without changes in the method of assessment or management guidelines. Changing clinical operations during shift changes on a palliative unit has multiple beneficial clinical consequences besides reductions in falls. PCNA presence on a palliative unit during shift changes and check lists of patient safety issues reduces falls, improves response time and satisfaction with pain management.
Poster N°: 336

Type of presentation: Poster
Poster session: Second group 30 May Friday 13.30 to 31 May Saturday 13.30
Category: Audit & quality control
Title: National Care of the Dying Audit Hospitals England (NCDAH) – The Results!
Authors:
Maureen Gambles Directorate of Specialist Palliative Care Marie Curie Palliative Care Institute Liverpool UNITED KINGDOM
Tamsin McGlinchey Marie Curie Palliative Care Institute Liverpool Liverpool UNITED KINGDOM
Deborah Murphy Marie Curie Palliative Care Institute Liverpool Liverpool UNITED KINGDOM
John Ellershaw Marie Curie Palliative Care Institute Liverpool Liverpool UNITED KINGDOM

Background: The Marie Curie Palliative Care Institute Liverpool (MCP-CIL), in collaboration with the Royal College of Physicians (RCP) have successfully completed the first audit of care of the dying in acute hospitals in England. 118 hospitals from 94 Acute Trusts covering the length and breadth of England participated. Methods: Aim To audit the standard of care for dying patients and their families whose care was delivered in the last days and hours of life using the Liverpool Care Pathway for the Dying Patient (LCP). Hospitals contributed data from up to 30 consecutive patients who died on an LCP within a 3 month time frame. Data were analysed descriptively illustrating % achieved (goal met); variance (goal not met); and goal not documented in 5 domains of care: • Physical Comfort of the Patient • Psychosocial and Spiritual Care • Communication • Information Giving • Procedures Contextual data was also collected from each hospital, including the size of the hospital, the number of deaths, staffing/resource issues, education in care of the dying, and the availability of supporting literature for the dying phase. Results: Data from 2672 patients from the 118 hospitals was entered into the audit. The results highlighted many areas of good practice, particularly where current medications were assessed and anticipatory medications were prescribed for at least 80% of patients, and 75% of hospitals achieved these goals for at least 70% of their patients. Discontinuation of inappropriate interventions occurred in over 87% of patients, but Intravenous fluids were continued more often than any other form of hydration. 96% of patients whose care was delivered in the last days and hours of life using the Liverpool Care Pathway for the Dying Patient (LCP). Hospitals contributed data from up to 30 consecutive patients who died on an LCP within a 3 month time frame. Data were analysed descriptively illustrating % achieved (goal met); variance (goal not met); and goal not documented in 5 domains of care: • Physical Comfort of the Patient • Psychosocial and Spiritual Care • Communication • Information Giving • Procedures Contextual data was also collected from each hospital, including the size of the hospital, the number of deaths, staffing/resource issues, education in care of the dying, and the availability of supporting literature for the dying phase. Results: Data from 2672 patients from the 118 hospitals was entered into the audit. The results highlighted many areas of good practice, particularly where current medications were assessed and anticipatory medications were prescribed for at least 80% of patients, and 75% of hospitals achieved these goals for at least 70% of their patients. Discontinuation of inappropriate interventions occurred in over 87% of patients, but Intravenous fluids were continued more often than any other intervention (16% of patients). In 75% of assessments in the last 24 hours of life, patients were found to be physically comfortable. However, care delivery in other domains appeared to be less consistent, particularly for goals of care after the death of the patient. Conclusions: Key recommendations with implications for policy, education and care delivery were identified.

Poster N°: 337

Type of presentation: Poster
Poster session: Second group 30 May Friday 13.30 to 31 May Saturday 13.30
Category: Audit & quality control
Title: Dying without data: Modernising the Core Specialist Palliative Care Minimum Data Set
Authors:
Maureen Gambles Directorate of Specialist Palliative Care Marie Curie Palliative Care Institute Liverpool UNITED KINGDOM
Clare Littlewood Marie Curie Palliative Care Institute Liverpool Liverpool UNITED KINGDOM
John Ellershaw Marie Curie Palliative Care Institute Liverpool Liverpool UNITED KINGDOM
Barbara Jack Marie Curie Palliative Care Institute Liverpool Liverpool UNITED KINGDOM
Ann Eve National Council for Palliative Care London UNITED KINGDOM
Ajeet Khatri National Council for Palliative Care London UNITED KINGDOM
Deborah Murphy Marie Curie Palliative Care Institute Liverpool Liverpool UNITED KINGDOM

Background: The Minimum Data Set (MDS) for specialist palliative care services was developed in 1995 to provide annual data on palliative care services in the UK. The development of payment by results and health resource groups together with identified limitations of the current MDS including missing data, the potential for double counting, resulted in a project that aimed to revise the MDS. Methods: A modified action research approach was adopted for the study. Phase one focused on modernising the MDS. Purposive sampling was used to invite key stakeholders from multi-disciplinary specialist palliative care services from across England and Wales to participate. 38 respondents attended 3 workshops, where each section of the MDS were discussed and revised. Phase two piloted the revised MDS. Pilot data analysis and views of the pilot site respondents was undertaken. Additionally the revised MDS was reviewed by a panel of experts. The revised MDS was then presented at a showcase event for final agreement by all participants. Results: There was a consensus that the MDS did not completely reflect current patient workload, extent of services provided or the development of integrated palliative care services. Modifications to all the sections of the MDS were made and changes to terminology made. Conclusions: An action research approach enabled a national consultation process to be completed effectively. The involvement of a wide sample of stakeholders ensured revisions were made based upon a national consensus of opinion and met the changing provision of specialist palliative care.
services. Further information regarding the process, and changes made to the MDS will be discussed.

**Poster N°: 339**

**Type of presentation:** Poster

**Poster session:** Second group 30 May Friday 13.30 to 31 May Saturday 13.30

**Category:** Audit & quality control

**Title:** Audit in resource-poor settings: design issues from a 5-centre Sub-Saharan study using the APCA African POS

**Authors:**

Richard Harding Palliative Care, Policy & Rehabilitation King’s College London UNITED KINGDOM

Barbara Panajotovic South Coast Hospice Durban S. AFRICA

Thandi Nkabinde PhilaniTugela Ferry S. AFRICA

Keletso Mnolalets Wits University Johannesburg S. AFRICA

Lucy Gwyther University of Cape Town Cape Town S. AFRICA

Natally Ntara Wits University Johannesburg S. AFRICA

Thandi Mashau University of Cape Town Cape Town S. AFRICA

Diana Goring South Coast Hospice Durban S. AFRICA

Tony Moll Philani Tugela Ferry S. AFRICA

Godfrey Agapio Hospice Africa Uganda Kampala UGANDA

Lydia Mpanga Sebuyira Hospice Africa Uganda Kampala UGANDA

**Background:** Audit is essential for quality improvement. However, there are no audit methodologies described in African palliative care. Aim: To undertake a 5-centre audit of palliative care services in South Africa and Uganda, utilising the APCA African POS. Population: Approx. 35% of patients had cancer; 75% were HIV+.

All were new patients or patients with new problems. **Methods:** Full audit cycle designed as follows: 1. Data collection Phase 1 recruited approx 100 patients per site; assess at baseline and five weekly subsequent points; 2. Data analysis and feedback to sites; 3. Identify service-specific key areas for service improvement; 4. Set facility-specific targets; implement individualised service improvement strategies; 5. Data collection Phase 2 (as for Phase 1). **Results:** Based on Phase 1 data key areas for improvement were identified by site. Targets were set (A) and improvement strategies implemented (B), e.g.: Site 1: (A) Reduce pain scores in 80% of patients scoring ≥1.5 by T5; (B) Nurse to refer to doctor if no improvement in two days; improve laxative prescription. Site 2: (A) Statistically significant change in mean symptom score by T2; (B) Nurse to refer to doctor if no improvement in two days; improve laxative prescription. Site 3: (A) Mean score of ≥1.5 on pain by T5; (B) Train staff in spiritual assessment; collaborate with spiritual leaders. Site 4: (A) ≥75% of patients to be followed-up for six assessments; (B) Collaborate with home-based care NGOs. Site 5: (A) Reduce mean family worry score ≥1.5 by T5; (B) Collaborate with social work NGOs; train home-based carers in communication skills. **Conclusions:** This first full clinical audit of five African palliative care services required adaptations to standard methods in more established health systems, e.g. validation of a suitable measure, evaluation of baseline data before setting standards. The APCA African POS is a feasible, effective tool for audit.

**Poster N°: 340**

**Type of presentation:** Poster

**Poster session:** Second group 30 May Friday 13.30 to 31 May Saturday 13.30

**Category:** Audit & quality control

**Title:** Retrospective audit of discharges from a specialist palliative home care team of a London Hospice

**Presenting author:** Kathy Burn

**Authors:**

Rosanna Heal Quality Assurance St Christopher’s Hospice UNITED KINGDOM

Penny Hansford St Christopher’s Hospice Sydenham, London UNITED KINGDOM

**Background:** The hospice’s criteria for discharging patients from home care include stable disease not requiring specialist care, and deterioration not expected in the following 3 months. The purpose of the audit was to establish whether discharge decisions appeared justified. **Methods:** All patients discharged during the first half of 2006 were identified using the hospice patient database (n=105). Clinical nurse specialists (CNS) followed up patients 12–18 months later by contacting their GPs; they consulted patient records and completed a data collection form. Data were entered onto SPSS 15.0 for analysis. A senior nurse and medical consultant independently reviewed the records of patients who had died or been re-referred within 15 weeks of discharge. **Results:** By June 2007, 50 (48%) patients had died. Where place of death was known, 36% died at home (n=17); 34% in hospital (n=14), with 30% in the hospice (n=14). The gap between discharge and death or discharge and re-referral ranged from 1 to 67 weeks (mean = 15.5) and 1–54 weeks (mean = 23.7) respectively. Twenty–eight (26%) patients were still alive, had not been re-referred and showed no evidence of progressive disease. Overall, 20 patients (19%) had died or were re-referred within 15 weeks of discharge, 8 were discharged when they moved away. Notes for one patient were unavailable. Of the remaining 11, 8 fulfilled the discharge criteria, having a low symptom burden and stable disease and 1 had been discharged at their request. A patient with a CVA and no specialist palliative care needs should not have been
taken on. The hospice should have attempted to remain involved with a pancreatic cancer patient who was reluctant to accept hospice care, given her disease load and potential to deteriorate quickly. **Conclusions:** Discharge of patients from palliative care services can be justified once symptoms have stabilised, and a clear discharge policy can contribute to the efficient use of resources.

**Poster N°: 342**

**Type of presentation:** Poster  
**Poster session:** Second group 30 May Friday 13.30 to 31 May Saturday 13.30  
**Category:** Audit & quality control  
**Title:** An All-Wales Audit of the Integrated Care Pathway for the Last Days of Life; Establishing the Audit Cycle  
**Presenting author:** Andrew Fowell  
**Authors:**  
Rosalynde Johnstone North West Wales NHS Trust Palliative Care Dept UNITED KINGDOM  
Susan Closs Swansea NHS Trust Swansea UNITED KINGDOM  
Andrew Fowell North West Wales NHS Trust Caerffaion UNITED KINGDOM

**Background:** Since 2000 the Integrated Care Pathway (ICP)for the Last Days of Life has been implemented in secondary and primary care throughout Wales. Analysis and feedback of the variance sheets demonstrate that lookin at the ICP variances in isolation has limitations. Consequently all-Wales audit of the ICP was undertaken. **Methods:** Using a standard audit template the base-line audit (31/8/06) data were analysed from 24 sites which include 4 (of 5) hospices, 3 (of 5) specialist in-patient units, 8 (of 28) community sites, 8 (of 9) district general hospitals, and one Nursing home. **Results:** These sites submitted data on 201 deaths managed using the ICP for the last days of life and represent a 77% response rate. The response rate to a concomitant staff survey sent out to district nursing teams, community hospitals, wards in district general hospitals and hospices was 48%. The findings of the audit indicate that standards were met in 62% of cases. Variance recording and reporting is mis-used resulting in 34% under reporting of variances. **Conclusions:** On-going training and “refresher” sessions were indicated for new and existing staff. The outcomes of the staff survey endorse the findings of the audit and call for more training although the ICP is recognised as a contributory factor in improving the care of the dying patient. Re-audit six months later showed an overall improvement with standards being met in 81% of cases. This second audit establishes the annual audit cycle for the ICP which will continue to monitor quality of care and contribute to the annual review of the pathway.

**Poster N°: 343**

**Type of presentation:** Poster  
**Poster session:** Second group 30 May Friday 13.30 to 31 May Saturday 13.30  
**Category:** Audit & quality control  
**Title:** Bed Blockers in Oncology: Myth or Reality? A snapshot oncology survey looking at whether palliative care involvement delays discharge  
**Presenting author:** Clare Marlow  
**Authors:**  
Samantha Kay Palliative Care University Hospital Birmingham UNITED KINGDOM  
Sharon Griffiths University Hospital Birmingham Birmingham UNITED KINGDOM  
Monica Thorpe University Hospital Birmingham Birmingham UNITED KINGDOM  
John Speakman University Hospital Birmingham Birmingham UNITED KINGDOM  
Emma Husbands University Hospital Birmingham Birmingham UNITED KINGDOM

**Background:** Since 2000 the Integrated Care Pathway (ICP)for the Last Days of Life has been implemented in secondary and primary care throughout Wales. Analysis and feedback of the variance sheets demonstrate that lookin at the ICP variances in isolation has limitations. Consequently all-Wales audit of the ICP was undertaken. **Methods:** Using a standard audit template the base-line audit (31/8/06) data were analysed from 24 sites which include 4 (of 5) hospices, 3 (of 5) specialist in-patient units, 8 (of 28) community sites, 8 (of 9) district general hospitals, and one Nursing home. **Results:** These sites submitted data on 201 deaths managed using the ICP for the last days of life and represent a 77% response rate. The response rate to a concomitant staff survey sent out to district nursing teams, community hospitals, wards in district general hospitals and hospices was 48%. The findings of the audit indicate that standards were met in 62% of cases. Variance recording and reporting is misunderstood resulting in 34% under reporting of variances. **Conclusions:** On-going training and “refresher” sessions were indicated for new and existing staff. The outcomes of the staff survey endorse the findings of the audit and call for more training although the ICP is recognised as a contributory factor in improving the care of the dying patient. Re-audit six months later showed an overall improvement with standards being met in 81% of cases. This second audit establishes the annual audit cycle for the ICP which will continue to monitor quality of care and contribute to the annual review of the pathway.
provided by the departments of oncology. Half of the patients are older than 77 years. Our observations should be of relevance when plans for an improved palliative care in patients with gastrointestinal cancers are entertained, and regarding patients with incurable RC, our results should be of particular interest.

**Poster N°: 345**

**Type of presentation:** Poster  
**Poster session:** Second group 30 May Friday 13.30 to 31 May Saturday 13.30  
**Category:** Audit & quality control  
**Title:** Clinical Characteristics and Outcomes in Patients with Advanced Rectal Cancer – a National Prospective Cohort Study  
**Authors:**  
Hartwig Körner Dept. of Surgery Stavanger University Hospital Stavanger NORWAY  
Helgi Sigurdsson Stavanger University Hospital Stavanger NORWAY  
Olav Dahl Haukeland University Hospital Bergen NORWAY  
Jon Arne Søreide Stavanger University Hospital Stavanger NORWAY  
Arne Skarstein Haukeland University Hospital Bergen NORWAY

**Background:** About 1/3 of patients with rectal cancer (RC) present with advanced disease. In this study we focus on a group of patients with primary advanced RC considered as not operable. We address various clinical aspects relevant for decision making in a group of patients in need of palliative care. **Methods:** Between 1997 and 2001, 4831 patients with RC were registered in the Norwegian Rectal Cancer Registry (NRCR). In this national cohort, 386 patients (8 %) without surgical interventions were identified, and clinical characteristics as well as survivals were addressed. **Results:** Not surgically treated patients were significantly older as compared to other treatment groups (median age 80 years; IQR, 72–86 vs. median age 71 years; IQR, 62–79 years; p < 0.001). Median survival time was 4.5 (range, 3.5 – 5.4) months, regardless of age, gender or hospital category. Patients who received radiotherapy had a significantly increased survival (median, 10 months) as compared to patients not treated with radiotherapy. Patients who received radiotherapy had a significantly increased survival, irrespective of a resection of the primary tumour or not. Careful consideration of the individual patient, extent of disease and treatment related factors are of importance for an appropriate decision-making in palliative treatment for patients with advanced RC.

**Poster N°: 346**

**Type of presentation:** Poster  
**Poster session:** Second group 30 May Friday 13.30 to 31 May Saturday 13.30  
**Category:** Audit & quality control  
**Title:** Palliative Surgery for Rectal Cancer in a National Cohort  
**Authors:**  
Hartwig Körner Dept. of Surgery Stavanger University Hospital Stavanger NORWAY  
Helgi Sigurdsson Stavanger University Hospital Stavanger NORWAY  
Olav Dahl Haukeland University Hospital Bergen NORWAY  
Jon Arne Søreide Stavanger University Hospital Stavanger NORWAY  
Arne Skarstein Haukeland University Hospital Bergen NORWAY

**Background:** If resection of the primary tumour is of benefit to patients with incurable rectal cancer (RC) remains a matter of debate. In this study we analyse prospectively recorded data from a national cohort. **Methods:** Among 4831 patients diagnosed with RC between 1997 and 2001, 838 patients (17%) were treated with palliative surgery. Patients were stratified according to disease-stage, age, and type of surgery. **Results:** A significantly longer median survival, 12 (range 10–13) months, was observed in patients treated with resection of the primary tumour as compared to survival of 5 (range 4–6) months in patients treated with non-resective procedures (p < 0.001). Median survival was significantly (p < 0.001) related to age groups (13 months in patients <60 years of age, 10 months in patients 60 to 69 years, 7 months in patients 70 to 79 years, and, 6 months in elderly >80 years of age, respectively). In the elderly group (>80 years of age), survival was similar regardless of the treatment. Thirty-day mortality varied between 2.5 % and 20 %, according to age groups. **Conclusions:** While longer survival was observed in patients when the primary tumour was resected, this may partly be explained by patient selection. Elderly patients (> 80 years) had a similar survival, irrespective of a resection of the primary tumour or not. Careful consideration of the individual patient, extent of disease and treatment related factors are of importance for an appropriate decision-making in palliative treatment for patients with advanced RC.

**Poster N°: 347**

**Type of presentation:** Poster  
**Poster session:** Second group 30 May Friday 13.30 to 31 May Saturday 13.30  
**Category:** Audit & quality control  
**Title:** Utilization of Nurse Clinician Services in a Comprehensive Palliative Medicine Program  
**Authors:**  
Ruth Lagman The Harry R. Horvitz Center for Palliative Med Cleveland Clinic U. STATES  
Pamela Gamier Cleveland Clinic Cleveland U. STATES  
Brenda Cothren Cleveland Clinic Cleveland U. STATES

**Aims:** The goal of this retrospective study is to formally audit the number and type of services rendered by these nurse clinicians and the minutes spent for each call. **Background:** A well established comprehensive and integrated palliative medicine program has utilized the expertise of nurse clinicians from the time of its inception in providing for the holistic and interdisciplinary care of individuals with advanced illness and their families. They provide services in terms of symptom management, patient updates, arranging ancillary services and appointments, medication refills over the phone. Also, they provide direct contact with patients and families both in the inpatient and outpatient settings. **Methods:** Phone calls, Electronic Medical Record (EMR) staff messaging, emails and direct patient contacts during both during on-call and office hours were collected for 3 consecutive months using a data collection sheet. There were 2 nurse clinicians providing coverage for 3 full time physicians. These 2 nurses provided coverage for each other during their days off. **Results:** There were a total of 1085 patient contacts. Types of contacts were symptom management 282, patient update 135, laboratory and imaging appointment assistance 66, medication questions and refills 399, miscellaneous 136. Direct contact was 291, pages 145, voice mail/staff messages 595. Total minutes spent for patient contacts were 13,685 minutes, averaging 12.6 minutes per call. **Conclusions:** 1) A 24-hour phone triage system allows symptom management and medication questions answered promptly 2) If symptoms are not managed over the phone, arrangements are made to be admitted in a hospital or an inpatient hospice setting 3) Emergency room visits are kept to a minimum and are advised only if indicated 4) Costly emergency room visits are avoided 5) Nurse clinicians provide skilled care and expertise to this population.

**Poster N°: 348**

**Type of presentation:** Poster  
**Poster session:** Second group 30 May Friday 13.30 to 31 May Saturday 13.30  
**Category:** Audit & quality control  
**Title:** Preventing Falls in an Acute Care Palliative Medicine Unit

---

**EAPC Abstracts**
Authors:
Ruth Lagman The Harry R. Horvitz Center for Palliative Med Cleveland Clinic U. STATES
Joanne Finelli Cleveland Clinic Cleveland U. STATES
Julie Fetto Cleveland Clinic Cleveland U. STATES

Background: 1) To measure the impact of active nursing intervention and change in bed type in the rates of falls in an acute care palliative medicine unit 2) to identify effective strategies in reducing falls 3) to assess the number of severity of injuries after a fall before and after implementation.

Methods: Strategies to improve patient safety to decrease falls were implemented as follows: 1) all beds were changed to have alarm sounding capability 2) nursing assistants gave report to each other in patient rooms that included patient safety 3) call lights were answered by caregivers near patient rooms 4) report was short and pertinent to patient safety 5) vital signs taken within 30 minutes of change of shift. The incidence of falls was measured 8 months before the intervention and 8 months after the intervention. Demographic data was collected on patients for both study periods. This is a retrospective study. Results: There were 40 patients who fell before the intervention with median age 64 (range 32–81), 24 males, 29 whites. 11 had lung cancer and 35 had metastatic disease. After the intervention, there were 31 patients who fell with median age 68 (range 32–81) with 20 males and 18 whites. 6 had lung cancer and 22 had metastatic disease. The number of falls decreased from 46 before the intervention to 31 (33% decrease). Median number of falls before the intervention was 1 (range 1–4) and after the intervention 1 (range 1–3). Most patients fell within the hours of 2301–0659 for both periods. 39% of falls were moderately severe in the first group compared to only 56% after the intervention. Conclusions: By implementing methods such as having caregivers in close proximity to patients increases visibility, allows exchange of information regarding falls risk, having beds with alarm sounding capability promotes overall patient safety.

Poster N°: 349

Type of presentation: Poster
Poster session: Second group 30 May Friday 13.30 to 31 May Saturday 13.30
Category: Audit & quality control
Title: Measuring Physician Productivity: Relative Value Units (RVUs) in Palliative Medicine
Authors:
Ruth Lagman The Harry R. Horvitz Center for Palliative Med Cleveland Clinic U. STATES

Background: 1) to analyze the trend in physician productivity (RVUs) over 3 years 2) to identify the most common procedural terminology (CPT) services used by palliative medicine practitioners 3) to identify the most common Diagnostic Related Groups (DRGs) and All Patient Refined-Diagnostic Related Groups (APR-DRGs) and their corresponding case mix and patient acuity. Palliative medicine is a relatively new specialty and patient acuity. Palliative medicine is a relatively new specialty and measuring physician work and productivity may be hard to quantify. Relative value units (RVUs) are nonmonetary objective weights assigned to an individual CPT service which assists physicians on their work productivity in the inpatient and outpatient settings. By analyzing the case mix of patients in parallel, the complexity of care for individuals being rendered can justify the time spent on a particular service. Methods: This is a retrospective study. The institution computer data base was used to collect RVUs, CPT codes, DRGs, and APR-DRGs for calendar years 2004, 2005 and 2006. Results: RVUs were 5663 in 2004, 5525 in 2005 and 5921 in 2006. Subsequent hospital level care III generated the most number of physician visits with 2178 for 2004, 2270 for 2005 and 2251 for 2006. Inpatient consult level IV was 234 for 2004, 195 for 2005 and 202 for 2006. Inpatient admission level III was 360 in 2004, 163 in 2005 and 203 in 2006. In the outpatient setting, established patient level IV was 356 in 2004, 178 in 2005 and 253 in 2006. The 5 most common DRGs and APR-DRGs for all 3 years were digestive malignancies, respiratory neoplasms, malignancy of hepatobiliary system, lymphoma and non-acute leukemia, and pathologic fractures. Conclusions: Analyzing the trends in RVUs and CPT services rendered by a palliative medicine physician 1) serves as a measure of productivity 2) identifies areas of resource utilization and 3) allows benchmarking and comparison with other providers.

Poster N°: 351

Type of presentation: Poster
Poster session: Second group 30 May Friday 13.30 to 31 May Saturday 13.30
Category: Audit & quality control
Title: Assessment quality of life by the Palliative Outcome Scale. What do we improve?
Authors:
Maria Nabal Palliative Care Supportive Team Hospital Universitario Arnau de Vilanova SPAIN
Concepción Palomar UFISS Hospital Universitario Arnau de Vilanova Lérida SPAIN
Maria Teresa Juvero UFISS Hospital Universitario Arnau de Vilanova Lérida SPAIN

Background: To evaluate the trends in severity of illness (SOI) by the All Patient Refined-Diagnostic Related Group (APR-DRG) and case mix index (CMI) by the Diagnostic Related Group (DRG) in an acute care palliative medicine unit. DRG and its corresponding CMI often do not reflect the accurate case mix and disease severity in patient populations. This is particularly true for palliative medicine when individuals have multiple sites of metastases, complications and comorbidities. The APR-DRG classifies patients into 4 subclasses of severity of illness (SOI) and risk of mortality (ROM). Recognizing this, the template for daily progress notes in place since 2004 captured the acuity of care delivered to these individuals. Though DRGs and APR-DRGs were the same year over year, the severity of illness was higher and more accurate for the latter demonstrating greater acuity. Methods: This is a retrospective study. Discharge data, APR-DRG/SOI, DRG/CMI, length of stay (LOS) were collected from the hospital database for calendar years 2003, 2004, July 2005–June 2006 and July 2006–June 2007. A template for daily physician progress note was put in place in January 2004 to capture multiple sites of metastases, complications and comorbidities that would have affected the SOI and CMI. Results: The number of admissions increased by 20% from 748 in 2003 to 899 in 7/06–6/07. Mean age was 60.8 +/- 14.6 in 2003, 61.7 +/- 14 in 7/06–6/07. Length of stay (LOS) showed an increasing trend: 9.31 +/- 7.54 days in 2003 to 10.21 +/- 8.85 from 7/06–6/07. ASOI also showed an increasing trend: 1.69 in 2003 and 1.98 in 7/06–6/07 (17% higher). CMI remained the same at 1.50 from 2003 and 7/06–6/07. Most common DRGs and APR-DRGs for all years included respiratory neoplasms, digestive malignancies, pathologic fractures, and hepatobiliary malignancies. Conclusions: The APR-DRG captures the true case mix and severity of illness in an acute care palliative medicine unit than the traditional DRG.
Pilar Mariné UFISS Hospital Universitario Arnau de Vilanova Lérida SPAIN
Ana Jmenez UFISS Hospital Universitario Arnau de Vilanova Lérida SPAIN

Background: Aim: 1) To describe if the intervention of a Palliative Care Supportive Team in a University Hospital can improve Quality of Life (QL) assessed by the Palliative Outcome Scale (POS). 2) To know which are the dimensions of QL that can be improved by our Palliative Care Team.

Methods: Descriptive, longitudinal and prospective survey by using the POS at the first visit and at discharge in all the patients treated by our palliative team from October 2006 to January 2007. Exclusion criteria: 1) patients with only one assessment, (survival less than 1 week or first assessment previous to the study period). 2) Assessments with any missing data. Variables assessed: POS items, age, sex and unit referred from.

Results: During the study, of the 115 newly treated patients, 50 were selected for the analysis. The 60% were men, the average age was 67.55. 86% were referred by medical specialties. Global POS improvement was significant after the palliative care intervention (p< 0.001). The dimensions that improve most improve were: pain (p< 0.001); other symptoms (p=0.001); information (p < 0.026) wasted time (p= 0.005) and the way that problems were resolved. POS analysis by sex, age minor or more than 70 and ward of origin there were no differences except for anxiety which improved especially among patients over than 70, even though this item did not affect final result. Conclusions: 1) Palliative care intervention by a supportive team improves QL of attended patients. 2) Pain, others symptoms, information, waste of time and the way the outstanding matters were dealt are the dimensions of QL that improve most.

Poster N°: 352

Type of presentation: Poster
Poster session: Second group 30 May Friday 13.30 to 31 May Saturday 13.30
Category: Audit & quality control
Title: Review of utilisation of hydrotherapy unit within a hospice setting
Authors:
Brenda O’Connor Registrar Blackrock Hospice, Co. Dublin IRELAND
Joan Cunningham Blackrock Hospice Dublin IRELAND
Aosife Langton Blackrock Hospice Dublin IRELAND

Background: Hydrotherapy is a therapy programme utilising the properties of water designed by a suitably qualified physiotherapist, specifically for an individual to improve function carried out by appropriately trained personnel, ideally in a purpose built and suitably heated hydrotherapy pool. This unit opened in an urban hospice setting in 2005. A qualified hydrotherapist attends 4 days per week. Following initial review by the hydrotherapist, a programme is structured and patients attend on a regular basis.

Methods: I conducted a chart review of patients who attended the hydrotherapy service in the first 2 years. Data reviewed included patient demographics, the source of referral, the reasons for referral, the number of sessions attended and reasons for discontinuing treatment. Results: 40 patients attended over a 2 year period from 01/02/05 to 31/01/07. These patients were referred from the day hospice, the in-patient unit and the homecare team. 38 patients were referred by medical specialties. 197 terminally ill oncology patients whose symptoms were treated. The average age was 62.51 years; the youngest 17 years old; the oldest 88 years old.

Methods: Once a day at 10 a.m. throughout a seven day period the following symptoms were assessed with a mark of 0–10: • pain when not moving, • pain in movement, • fatigue, • nausea, • breathlessness, • dry mouth, • appetite, • anxiety, • depression, • general physical condition.

Results: The results of the treatment and therapy administered were as follows From 197 patients 114 (57.8%) were male and 83 (42.2%) were female. The average stay in hospice was 10.7 days. 91 patients (46%) were discharged (group 1) and 106 (54%) died (group 2). Of these, 76 (72%) died within 7 days of admission from the following: • lung cancer 41, • liver 19, • abdomen 39, • urological 31, • gynaecological 23, • ORL 12, • others (breast, skin) 12.

Conclusions: The majority of patients died within 7 days after admission (the total symptom score was always above 80). This shows the need for earlier referral to the hospice or the need for improved palliative home treatment.

Poster N°: 354

Type of presentation: Poster
Poster session: Second group 30 May Friday 13.30 to 31 May Saturday 13.30
Category: Audit & quality control
Title: Discharge planning in palliative medicine: electronic databases to evaluate continuity of care
Presenting author: Declan Walsh
Authors:
Ruth Powszak Harry R. Horvitz Center for Palliative Medicine Cleveland Clinic Taussig Cancer Center U. STATES
Mellar Davis Cleveland Clinic Cleveland U. STATES
Declan Walsh Cleveland Clinic Cleveland U. STATES
Carole Kurgell Cleveland Clinic Cleveland U. STATES
Ruth Lagman Cleveland Clinic Cleveland U. STATES

Background: Palliative medicine is evolving. The effective provision of care for patients in acute care inpatient palliative medicine unit (ACPMU) requires understanding demographic trends to plan clinical services. Our objective was to identify and compare overall trends for admissions / readmissions, age, gender, diagnosis (DRG), case mix index (CMI), length of stay, and referral types to determine future program services. Methods: Retrospective review. An electronic database (Eclipsys TSI) system, Boston,
MA, 1985) analyzed patient demographics and compared trends over several years. An electronic program (ECIN Extended Care in Network inc. Chicago, ILL) that transfers information to post acute care resources identified and compared referral types over several years. Results: Admissions to the (ACP MU) have doubled from 400 to over 800 a year. The median age of patients declined from 69 to 61, although the mode remained at 74. DRG data was consistent. CMI increase was statistically significant. Mean length of stay decreased by 2 days. Medicare as primary insurance payer decreased 18%. Post-acute discharges have remained consistent: home with care 44% (30% hospice/14% homecare); follow outpatient 19%; placement 17% (6% nursing home/11% inpatient hospice); or died on unit 20%. The younger population increased demands on treatment and healthcare resources. Older patients had high complexity with co-morbidities from cognitive and physical decline. Conclusions: 1) Demographic trends showed younger patients, increased case mix index, increased volume, and reduced length of stay over time. The unit has been shown to be fiscally viable despite greater CMI. 2) Profiles of patient needs were identified. Younger patients accessed high tech interventions at discharge; older patients needed more resources for caregiving. 3) An electronic program enhanced the process of accessing post acute care earlier, reduced LOS, enhanced productivity and increased throughput.

Poster N°: 355

Type of presentation: Poster
Poster session: Second group 30 May Friday 13.30 to 31 May Saturday 13.30
Category: Audit & quality control
Title: A retrospective review to test the hypothesis that “opioid toxicity”, developing in an otherwise stable patient heralds imminent sepsis
Authors:
Dymphna Waldron Department of Palliative Medicine University Hospital Galway IRELAND
Maura Grummell Department of Palliative Medicine, University Hospital Galway. Galway IRELAND
Florrie Daniels Department of Palliative Medicine, University Hospital Galway. Galway IRELAND
Eileen Mannion Department of Palliative Medicine University Hospital Galway. Galway IRELAND

Background: Over many years working within a service, that was developed alongside the WHO model of care, engaging with patients with advanced disease on active chemotherapy/radiotherapy, a trend has been observed in relation to opioid toxicity developing in a relatively stable patient, that the actual toxicity heralds imminent sepsis. Methods: A retrospective audit was completed from September 2006 – November 2006. Medical charts of all patients referred were studied and documentation of patients who developed opioid toxicity secondary to escalation of opioids, with opioid poorly responsive pain, who developed opioid toxicity secondary to successful radiotherapy and/or chemotherapy and or interventional blocks; who developed opioid toxicity and within 24–48 hours developed sepsis. Documentation of dose reduction in opioids was recorded; use or not of Naloxone was recorded; recalibration of opioid dose was recorded within a week to 10 days of successful treatment of sepsis was recorded; as well as evidence of recalibration and if it did or did not occur in the other patient groups. Results: 150 patients were referred. All charts studied. 30% developed unexplained opioid toxicity on stable doses of opioids. The major presenting sign of toxicity was myoclonus. Within 24 to 48 hours of developing toxicity signs of sepsis became apparent. Renal dysfunction was not an important associated feature in this audit. Conclusions: This audit is ongoing with a plan to perform a prospective study looking at opioid toxicity and the relationship to sepsis, opioid toxicity and its relationship to the inflammatory response; opioid effects with temperature changes; opioid effects with increasing white cell count. The hypothesis, that opioid toxicity in a previously non toxic stable patient heralds imminent sepsis, if found to be proven in reality, could have major medical implications.

Poster N°: 356

Type of presentation: Poster
Poster session: Second group 30 May Friday 13.30 to 31 May Saturday 13.30
Category: Audit & quality control
Title: A retrospective review of the use of Pregabalin in an acute hospital palliative medical referral liaison service
Authors:
Dymphna Waldron Department of Palliative Medicine University Hospital Galway IRELAND
Florrie Daniels Department of Palliative Medicine, University Hospital Galway. Galway IRELAND
Maura Grummell Department of Palliative Medicine, University Hospital Galway. Galway IRELAND
Eileen Mannion Department of Palliative Medicine, University Hospital Galway. Galway IRELAND

Background: Pregabalin is a neuropathic agent mainly used for Diabetic Neuropathy and Trigeminal Neuralgia. The initial starting dose recommended by the pharmaceutical company is 75mg bd (This dose is adjusted for those patients with renal impairment). Normally Gabapentin or Amitriptyline is used for neuropathic pain associated with malignant disease. Our Palliative Medical service has found Pregabalin very beneficial in the treatment of neuropathic pain. Methods: A retrospective audit was completed of all patients referred to the Palliative Care Medical Service at Galway University Hospitals from September 2006 – November 2006. This audit included all patients referred to the service; all patients commenced on Pregabalin; the indication for commencing Pregabalin; the starting dose; the incremental adjustments; the maintenance dose; and renal function. The need for escalation of opioids and other adjunctive analgesics two weeks prior to commencement of Pregabalin as well as reduction in other adjunctive analgesics two weeks after commencing Pregabalin was observed. Clinical recording of pain relief and/or reduction or discontinuation in other co-analgesics was used as a parameter of effectiveness. Results: 150 patients were referred. All charts analyzed. 30% of patients were commenced on Pregabalin; n=52 malignant; n=1 non-malignant. 43% of patients had complete pain relief; 43% had partial relief; opioid reduction was significant post Pregabalin with 30% of patients having 50% to 100% opioid reduction. Only one person discontinued Pregabalin due to side effects. Initial dose was 25mg bd in the majority of patients. Conclusions: Pregabalin was very effective for pain relief of neuropathic cancer pain. Side effect profile was minimal on commencing at much lower doses than recommended. For this population of patients with advanced disease the stabilisation and reduction in opioids has significant clinical implications.

Poster N°: 357

Type of presentation: Poster & poster discussion session
Poster session: Second group 30 May Friday 13.30 to 31 May Saturday 13.30
Category: Bereavement
Title: Issues in evaluating UK childhood bereavement services
Authors:
Liz Rolls Department of Natural and Social Sciences University of Gloucestershire, Cheltenham Glos UNITED KINGDOM

Background: The study ‘mapped’ evaluations of UK childhood bereavement services. It identified the challenging issues involved in evaluating children's bereavement services; what evaluations had been undertaken; what needed to be evaluated and how best these could be achieved. The study participants involved UK childhood bereavement services including those in palliative care, and evaluation experts. Methods: The study used three research methods in a Delphi design: 1. Focus Groups of service practitioner identified the evaluation needs and concerns that were common to all, as well as those that were relevant to specific services. Evaluation aspects that still needed to be addressed were identified. 2. Two questionnaires; the first identified the evaluations that services had undertaken or used routinely; the second
Poster N°: 358  
Type of presentation: Poster  
Poster session: Second group 30 May Friday 13.30 to 31 May Saturday 13.30  
Category: Bereavement  
Title: Complicated grief risk factors in palliative care’s caregivers  
Presenting author: Patricia Yi  
Authors:  
Pilar Barreto faculty of Psychology University of Valencia SPAIN  
Elvira Martinez University of Valencia Valencía SPAIN  
Victoria Espinar Hospital Dr Moliner Serra (Valencia) SPAIN  
Miguel Fombuena Hospital Dr Moliner Serra (Valencia) SPAIN  
Carmen Soler Hospital Pare Jofre Valencia SPAIN  
Pilar Barreto University of Valencia Valencia SPAIN  

Background: Traditionally complicated grief risk factors have not been assessed in palliative care settings and usually these factors have not been studied simultaneously. **Aim:** To identify complicated grief risk factors in palliative care’s caregivers. **Methods:** Longitudinal study of 110 palliative care units’ patient’s grievers. 17 complicated grief factors were studied. Two complicated grief criteria were used: DSM-IV-TR and Inventory of Complicated Grief (ICG) administered 6 months postloss. **Results:** Significant differences were found between complicated/uncomplicated grievers using chi-square analysis with Cramer’s V effect (cv): caregiver’s dependency toward patient (chi2=18,038;p=000;cv=342), anger (chi2=7,977;p=002;cv=269), guilt (chi2=7,065;p=038;cv=253), previous psychiatric problems (chi2=12,853;p=003;cv=392), previous grief problems (chi2=28,993;p=000;cv=513), delay illness diagnosis (chi2=8,011;p=024;cv=270), symptoms without control during all illness trajectory (chi2=15,813;p=001;cv=379), symptoms without control during the last days (SWC) (chi2=7,727;p=019;cv=266) and financial problems (chi2=8,112;p=022;cv=227). Differences between both criteria were found in anger and SWC. Binary regression analysis found that best complicated grief predictors were caregiver’s dependency (Wald=4,161, p=0,041, Exp(B) 2.29), guilt (Wald=5,892,p=0,017, Exp(B) 3,496), previous grief problems (Wald=5,689, p=0,17, Exp(B) 3,39), SWC (Wald=7,611, p=0,006, Exp(B) 3,02) and financial problems (Wald=5,783, p=0,016, Exp(B)3,33). **Conclusions:** Better predictors of complicated grief factors in palliative care units were caregiver’s dependency, guilt, unresolved previous bereavements, symptoms without control (SWC) and financial problems. These are important cues for complicated grief assessment.

Poster N°: 359  
Type of presentation: Poster  
Poster session: Second group 30 May Friday 13.30 to 31 May Saturday 13.30  
Category: Bereavement  
Title: The impact of early parental death on adult life: the impact of early parental death on adult life: a narrative approach  

Authors:  
Jacqueline Ellis APSCSG, Divison of Primary Care University of Liverpool UNITED KINGDOM  
Mari Lloyd-Williams Academic Palliative and Supportive Care Studies Group, University of Liverpool Liverpool UNITED KINGDOM  
Chris Dowrick Division of Primary Care, University of Liverpool Liverpool UNITED KINGDOM  

**Background:** Around 53 children and young people under 18 are bereaved of a mother or father every day. Whilst there are a number of studies that report increased psychological disturbance in children as a result of early parental death, little attention is paid to the long term impact of such a loss, particularly in the UK. A qualitative, narrative approach provides rich insights into this phenomenon as it allows us to explore the individual experience of bereavement and the way in which wider social structures and processes impact on it. Drawing on Hermeneutic Phenomenology this study focuses on the question: What is the lived experience of bereavement regarding early parental death and its impact on adult life? **Methods:** Written and oral narratives (n=30) have been obtained from participants that had lost a parent before the age of 18, the majority of which live in the North West. The participants are from a broad age range and a variety of social backgrounds. Data analysis draws on a narrative holistic-context approach in conjunction with an organising thematic framework. **Results:** Early analysis of the data suggests that the impact of loss is different for each individual. This impact (perceived to be both positive and negative) is mediated by a complex range of inter-related factors. Of particular importance seems to be the age of the child at the time of death (i.e. the older the child, the greater the impact), the mode of death, family structure prior and post loss, the extent of their social support networks (formal and informal), family beliefs and values surrounding bereavement, communication and economic status. **Conclusions:** The preliminary findings suggest that the traditional models of bereavement which inform bereavement support are limited and oversimplify the grief process. From the results we will make a number of recommendations to inform future policy and practice.

Poster N°: 358  
Type of presentation: Poster  
Poster session: Second group 30 May Friday 13.30 to 31 May Saturday 13.30  
Category: Bereavement  
Title: Grief Reaction of Bereaved Caregivers to Patients treated in a Palliative Care Unit  
Authors:  
Mai-Britt Guldin Oncological, Aarhus University Hospital Palliative Home Care Team DENMARK  
Anders Bonde Jensen Dep. of Oncology, Aarhus University Hospital Aarhus DENMARK  
Maja O’Connor Psychotraumatological Research Unit, Dep. of Psychology, Aarhus University Aarhus DENMARK  

**Background:** To study the impact of bereavement reaction and personality related factors that could affect and complicate grieving in caregivers to patients treated in a palliative care unit. The study aims to identify predictors of complicated grief and assess the need for support. **Methods:** A self-report questionnaire, measuring PTSD (HTQ), coping style (CSQ), attachment style (RAAS), personality (NEO-PI), depression (BDI) and complicated grief (ICG). Adult relatives to deceased patients treated in a palliative care unit were asked to participate one month after their loss, answering the questionnaire every 6 months for a period of 18 months. Included in the study were 85 bereaved relatives: 59 females and 26 males. Mean age: 53 years. Response rate at 6-month follow-up was 90%. The study is ongoing. **Results:** At baseline 27% of the relatives met the DSM-IV-criteria of early PTSD and 28% could be diagnosed with depression according to the BDI. Results will be presented from the follow-up questionnaire regarding the development of the PTSD and depression in relation to personality factors. The follow-up will also present the first
results of the Inventory of Complicated Grief in a Danish population. **Conclusions:** This study indicates that about 1/3 of bereaved caregivers suffer from PTSD and/or depression one month after their loss. Indicating that more attention should be given to bereaved caregivers. Further results will be presented on the follow-up data.

**Poster N°: 361**

**Type of presentation:** Poster  
**Poster session:** Second group 30 May Friday 13.30 to 31 May Saturday 13.30  
**Category:** Ethics  
**Title:** Geriatrics D Refusal Phenomenon with End Stage Dementia Patients  
**Authors:** Bechor Zvi Aminoff Geriatric Division Sheba Medical Center, Tel-Hashomer ISRAEL

**Background:** In memory to Geriatrics D department which refused and closed due to failure coping with suffering of end stage and dying dementia patients, caregiver staff, and family members. The “Geriatrics D Refusal phenomenon” of end stage dementia (ESD) patients has never been was described in medical literature. Refusal phenomenon is entirely clear-cut different from the well-known “burn out syndrome”, and it is separate and independent part of abuse and neglect of elderly patients. In burn out syndrome the staff has motivation to give care, and they understand the importance of the challenge, but are exhausted due to the enormous burden. In the Geriatrics D Refusal phenomenon every effort is made in order not to admit ESD patients and there are numerous techniques are employed of getting rid these patients from the department. In the Geriatrics D Refusal phenomenon, both sides –the Health Insurance Funds and caregiver hospital staff reject the importance of the challenge to provide appropriate care to ESD patients. The refusal phenomenon of ESD patients by health services is one of main causes of suffering of in end stage dementia. **Methods:** We developed novel objective tool for measuring suffering in ESD Mini Suffering Examination (MSSE) which was published in our book – Measurement of Suffering in end-stage Alzheimer’s disease, Dyonon, Tel-Ariv, 2007. **Results:** The results of our research regarding of measuring suffering of dying dementia patients: was proven that MSSE score on the day of admission was 5.6±2.31, and increased to 6.89±1.95 at the last day of life (P < 0.0001). According to MSSE scale, 63.4% and 29.6% of patients died with suffering measuring of end stage and dying dementia patients.

**Poster N°: 362**

**Type of presentation:** Poster & poster discussion session  
**Poster session:** Second group 30 May Friday 13.30 to 31 May Saturday 13.30  
**Category:** Ethics  
**Title:** Ethics and refractory symptoms  
**Authors:** Daniela Cattaneo Hospice Vidas ITALY  
Emanuela Porta Vidas Milano ITALY  
Giada Lonati Vidas Milano ITALY  
Barbara Rizzi Vidas Milano ITALY

**Background:** The ethical implication is now the first problem for refractory symptoms’ treatment. One of these, dyspnea is experienced by 21–78.6% of terminally ill patients (Ripamonti 1999) and palliative sedation is usually the therapy of choice because this symptom is frequently unresponsive to treatment. **Methods:** Sample of patients hospitalized in the Casa Vidas Hospice (21/7/06–21/9/07) suffering from dyspnea. Analysis of therapy; patient clinical condition (consciousness, ability to speak, emotional state); origin (home, hospital); social status. Qualitative data of 3 groups of patients dying after: A, 24 hours in hospice; B, 2–3 days; C, 4–10 days. **Results:** Sample with dyspnea: 307 of which 267 died, 99% had moderate to severe dyspnea in the last days. Dyspnea was a result of reduced pulmonary function due to: pulmonary cancer in 35% of cases, pleural-pulmonary metastases in 17%, a mediastinal syndrome in 2 cases, for a total of 142 patients (54%). Average survival rate: 11.17 days (range:1–108). Consciousness was reduced/absent in 81% of cases, while patient emotional states were characterized by: fear (64%), depression (53%), panic attack (13%), moderate/severe anxiety (33%). Patients per group: A 10 (4%); B 66 (25%); C 102 (38%). Group A, therapy: benzodiazepines, lorazepam 1–5 mg per day; antipsychotics, haloperidol 2–6 mg per day; opiates, morphine 10–100 mg per day. Family consent for sedation was given in 100% of cases; patient in 40% (half patients experienced anxiety and panic); unresponsive drowsiness in 50% of cases. **Conclusions:** The data for groups B/C are still being analyzes. Establishing a communication protocol for the consent of palliative sedation is an important aspect of Palliative Care (PC) and needs to be addressed in the coming years. So communication instruments already in use should be verified to ascertain those aspects of PC that need to be modified in order to properly reflect the patient’s will in the presence of symptoms unresponsive to therapy.

**Poster N°: 363**

**Type of presentation:** Poster  
**Poster session:** Second group 30 May Friday 13.30 to 31 May Saturday 13.30  
**Category:** Ethics  
**Title:** Withdrawing and withholding interventions may be moral equivalents  
**Authors:** Ilora Finlay Oncology and Palliative Medicine Cardiff university UNITED KINGDOM  
Mike McNamee Swansea University Swansea UNITED KINGDOM

**Background:** Debates and guidelines abound on withdrawing / withholding treatments, and nutrition and/or hydration. Documents such as the British Medical Association guidelines state that withdrawing and withholding are morally equivalent actions. However, many clinicians (doctors and nurses) express concern that the cessation of interventions is a different decision and associated with feeling guilt. **Methods:** The initial decision (clinically viable options) in the mind of the clinician is weighed up using the four principles of Beauchamp and Childress, although concepts of justice feature less often in discussions over individual patients. Many theoretical options are discarded by the clinician as non-feasible because they will not improve or are likely to worsen the patients’ clinical condition. Options deemed ‘feasible’ are then presented to the patient, either singly or as choices. **Results:** Where no therapeutic option is deemed potentially beneficial, the patient and family are offered ‘best supportive care’ or similar; although the clinician may perceive this as a ‘doing nothing’. When an intervention is considered and offered to a patient, the patient’s autonomy becomes the key determinant in the choice of action to follow. However the clinician may be unaware of the patient or family’s expectations, which vary widely from the likely outcomes of the intervention discussed with the clinician. When that intervention fails or ceases to be of benefit to the patient, then the clinician is faced in the discussion over treatment withdrawal. **Conclusions:** This is a more complex conversation as the clinician has to admit internally that the action has ‘failed’ to achieve the planned outcome, which impinges on his self-perception of professionalism. It also implies that the patient was not fully informed at the outset that the proposed treatment was a therapeutic trial and subject to review. This therefore carries a burden of remorse or guilt for the clinician, making the decision morally harder to take.

**Poster N°: 364**

**Type of presentation:** Poster & poster discussion session  
**Poster session:** Second group 30 May Friday 13.30 to 31 May Saturday 13.30  
**Category:** Ethics  
**Title:** Nurses’ attitudes towards end-of-life decisions in Flanders, Belgium
Presenting author: Freddy Mortier
Authors:
Els Ingelebrecht End-of-Life Care Research Group Vrije Universiteit Brussel BELGIUM
Freddy Mortier Ghent University Ghent BELGIUM
Johan Bilsen Vrije Universiteit Brussel Brussels BELGIUM
Luc Deleers Vrije Universiteit Brussel / VUMC Amsterdam & EMGO Institute Brussels / Amsterdam BELGIUM

Background: Public and ethical debate, scientific research, and legislation about end-of-life decisions with a possible or certain life-shortening effect (ELDs) predominately focus on the role and attitudes of physicians in these decisions. Objective: To investigate nurses’ attitudes towards ELDs and towards their role in those decisions, and to explore the associations with their social and professional characteristics. Methods: Data were collected in Flanders, Belgium via a mail survey among 6000 nurses, randomly sampled out of 75035. Attitudes were asked by means of statements, using a 5-point Likert-scale. Associations were investigated using logistic regression analyses. Results: Response rate was 62%. Most of the 3319 eligible nurses showed an accepting attitude towards non-treatment decisions (93%), alleviation of pain and symptoms with possible life-shortening effect (96%), and using life-ending drugs for terminal patients on their request (i.e. euthanasia (92%)). Seventy percent however thought that good palliative care would prevent many euthanasia requests. Most nurses (90%) wanted to be involved in the whole ELD-process. Strong variation was found in nurses’ willingness to administer life-ending drugs, in their conviction of physicians’ willingness to listen to nurses’ opinions about terminal patients, and in their position towards physicians. Acceptance of ELDs was related to nurses’ rating of importance of religion in ELDs, having had palliative training, and experiences with terminal patients and ELDs. Defining nurses’ role in ELDs was also related to the importance of religion and experiences with ELDs, but additionally to educational level and work setting. Results of regression analyses are presented. Conclusion: The high acceptance of ELDs shows ambivalence between fear and hope. There is a strong need for a stable therapeutic relation to health personnel. Although the concept of patient’s autonomy is deeply rooted in the Norwegian culture and medical practice, in the clinical encounter it does not seem to represent the most important issue for these patients. Information is not primarily seen as a precondition to autonomous therapeutic choice, but rather as an aid to keep up hope. Conclusions: The information process always implies an ethical choice. Information has a positive value for the patient if it takes place within a stable therapeutic relation with health personnel, based upon mutual trust. Patient autonomy acquires meaning only in an interpersonal context, where the health worker is an expert who, in addition to medical knowledge, acts according to empathy, ethics and human values.

Poster N°: 365
Type of presentation: Poster
Poster session: Second group 30 May Friday 13.30 to 31 May Saturday 13.30
Category: Ethics
Title: The dignity of the dead
Authors:
Göran Lantz Inst for Caring Science Ersta Sköndal Univeristy College SWEDEN

Background: There is a “chain of care” reaching from care for the elderly in service homes over special homes for the elderly to nursing homes. At the same time one might speak of a “chain of care” from the moment of death until the funeral. It includes the professional activities of hospital staff (including medical home care), pathologists, transporters of the dead, undertakers and ministers and churchyard personnel. It is essential that these professionals co-operate and have a fairly common view of the dead. I discuss what I would like to call a thanatropology, a view of the dead, analogous with an anthropology, i.e. a view of man. In my view there can be a reductionist and a more holistic view of the dead. The latter includes the narrative of the dead or her life-story. I further discuss whether the dead can be said to be a person and whether she can have rights. How can we justify such rights (legal and moral)? I lay religious as well as secular aspects on the view of the dead. Finally I distinguish between four kinds of dignity (Lennart Nordenfelt’s typology), and try to determine in which of these aspects there might be a dignity of the dead and what that implies for the care of the dead. Methods: Philosophical, concept clarification and analysis of arguments. Conclusions: This heading may seem a little comic when it comes to philosophical analysis.

Poster N°: 366
Type of presentation: Poster
Poster session: Second group 30 May Friday 13.30 to 31 May Saturday 13.30
Category: Ethics
Title: Patient autonomy and therapeutic relation
Authors:
Cinzia Marini Kreftavdeling St. Olavs Hospital NORWAY

Background: In the advanced stage of breast cancer (III A or further stages) the therapeutic path is longer and more complex than in the earlier stages, the chances of relapse higher, and the prognosis relatively uncertain. In Norway, as in the rest of Europe, the follow up program stretches over at least five years’ monitoring after surgery. Our clinical experiences indicate that information for these patients represents a central and particularly sensitive topic. However, scientific knowledge about how this group of patients experiences the different aspects of the information process is limited. Aims: To highlight how patients with advanced breast cancer experience the information process, in particular relatively to ethical and existential aspects. Methods: Qualitative interviews of 7 patients with advanced breast cancer (III A or further stages), treated at St.Olav’s University Hospital in Trondheim (Norway). The material was analyzed according to Giorgi’s phenomenological method. Results: The need for information shows ambivalence between fear and hope. There is a strong need for a stable therapeutic relation to health personnel. Although the concept of patient’s autonomy is deeply rooted in the Norwegian culture and medical practice, in the clinical encounter it does not seem to represent the most important issue for these patients. Information is not primarily seen as a precondition to autonomous therapeutic choice, but rather as an aid to keep up hope. Conclusions: The information process always implies an ethical choice. Information has a positive value for the patient if it takes place within a stable therapeutic relation with health personnel, based upon mutual trust. Patient autonomy acquires meaning only in an interpersonal context, where the health worker is an expert who, in addition to medical knowledge, acts according to empathy, ethics and human values.

Poster N°: 367
Type of presentation: Poster
Poster session: Second group 30 May Friday 13.30 to 31 May Saturday 13.30
Category: Ethics
Title: Knowledge and experience of health professionals working in a Rehabilitation and Geriatrics Department regarding to advance directives:
Authors:
Sophie Pautex Rehabilitation and geriatrics Service of palliative medicine SWITZERLAND
Paulette Le Lous Dpt Rehabilitation and Geriatrics. University Hospital Geneva Geneva SWITZERLAND
Laurence Dénéral Dpt Rehabilitation and Geriatrics. University Hospital Geneva Collonge-Bellerive SWITZERLAND
Nora Zerari Dpt Rehabilitation and Geriatrics. University Hospital Geneva Collonge-Bellerive SWITZERLAND

Background: A specific legislation relative to advance directives (AdS) has been implemented in our the canton of Geneva since 1996. Health professionals (HP) are required to find out existing AdS and to provide informations about AdS at the time of patient hospitalization. The objective is to better characterize knowledge and experience of HP working in a Rehabilitation and Geriatrics Department regarding to advance directives and to develop an education program related to them. Methods: A survey that consisted of 29 questions was distributed to 490 auxiliary nurses and nurses. The survey included domains examining their knowledge concerning state laws and general informations concerning AdS, the proxies’ role, the health
professional's role, the impact of the ADs on the partnership with the patients and the quality of care and existing education program. Results: 229 surveys were returned for an overall response rate of 47%. Key elements that emerged from the preliminary analysis were: 1) almost a third of HP agreed with the assumption that ADs content is more important that patient’s opinion if he can still communicate (74(32%)) 2) one third of HP agreed with the assumption that ADs must be completed at the time of the admission of the patient (77(34%)) 3) the majority of HP agreed with the assumption that a proxy must be designated (139(61%)) and that his personal opinion must be taken into account (77(34%)) 4) available education programs about ADS were unknown (106(46%)) 5) most HP considered ADs a valuable communication tool that improve quality of discussion with the patient (187(82%)) 6) 95 HP (41%) had already given some information about ADs to the patients 7) 61 HP (27%) estimated to have enough knowledge about ADs.

Conclusions: ADs have been implemented more than ten years ago but today’s knowledge and experience of HP must be improved through an adapted education program. This identical survey will be repeated after completion of the ongoing education program and analyzed.

Poster N°: 369

Type of presentation: Poster
Poster session: Second group 30 May Friday 13.30 to 31 May Saturday 13.30
Category: Ethics
Title: Palliative patients’ wish to hasten death: motivations and expectations toward caregivers
Authors:
Stephanie Stiel Klinik für Palliativmedizin RWTH Aachen GERMANY
Martina Pestinger Klinik für Palliativmedizin, RWTH Aachen GERMANY
Norbert Krumm Klinik für Palliativmedizin, RWTH Aachen GERMANY
Lukas Radbruch Klinik für Palliativmedizin, RWTH Aachen GERMANY
Frank Elner Klinik für Palliativmedizin, RWTH Aachen GERMANY

Background: Patients from the palliative care units in Aachen, Bonn and Cologne who report a wish to die or ask for physician-assisted suicide are examined in a qualitative study by the method of Grounded Theory. An open, half-structured, audiotaped interview is used to further decode the communicative function and motivation of the wish to hasten death and to discuss the question whether the patient’s opinion about life and death is related to their biographic context. One of the aims is to identify patients’ needs and to clarify what patients wishing for hastened death expect from caregivers. Methods: Hypotheses are generated on the basis of content categories and tested in the ongoing interviews to develop a concluding theory. Four patients have been included; none of them complains of additional burden from the participation in the study. Results: Preliminary results of 295 categorized statements show that the motivation to ask for hastened death is prominently influenced by the wish to avoid certain situations or conditions such as transfer to nursing home, social neglect as well as bodily changes in the future (37). Other reasons were level of understanding of the disease (26) and the dealing with the dimension of time (21). The patients’ expectations are focused on the wish to recover quality of life, to be treated holistically, to control major symptoms, to be heard and to get individual information and adequate treatment. Conclusions: Patients seem to be lead by their imagination and anticipation of suffering. They grapple with their need for an individualized care and fear a lack of resources which would make life worthless. Being a burden to others may strengthen the wish to hasten death. It is up to the next interviews to emphasize biographic changes and see whether similar patterns of thought on life and death are reported from earlier stages of life, as the tendency of the interviews suggests. Source of funding: Deutsche Forschungsgemeinschaft (DFG, 350253).

Poster N°: 370

Type of presentation: Poster
Poster session: Second group 30 May Friday 13.30 to 31 May Saturday 13.30
Category: Ethics
Title: Do Not Resuscitate (DNR) Policy in New York State: A focus on DNR by Therapeutic Exception
Authors:
Ursula Hauck Pain and Palliative Care Service, Dept. Of Neurolo Memorial Sloan-Kettering Cancer Center U. STATES
Eugenie Obbens MD PhD Memorial Sloan-Kettering cancer Center New York U. STATES
Nessa Coyle NP PhD Memorial Sloan-Kettering Cancer Center New York U. STATES

Background: New York State mandates that the consent process for obtaining a DNR order must be documented on an appropriate consent form.
These are available for 7 categories of patients: Adult patient with capacity, patients without capacity who previously consented to a DNR order, patients without capacity who have a surrogate, patients without capacity and without a surrogate, minor patients, patients not in hospital and patients with capacity who would be harmed by a DNR discussion (Therapeutic Exception). There is little data on the prevalence of DNR by Therapeutic Exception in terminally ill patients. Objectives: 1. To identify the prevalence of DNR by Therapeutic Exception in a 450 bed urban comprehensive cancer center. 2. To explore the physician documented reasons for evoking DNR by Therapeutic Exception. Methods: Data was retrieved electronically on 627 in-patient deaths from August 2005–2006. DNR by Therapeutic Exception had been evoked in thirteen patients (2.07%). The consent forms for DNR by Therapeutic Exception were then reviewed to identify the physician documented reasons for its use in these thirteen patients. Results: The reasons for “determination of injury” were documented by the physicians as: “Discussion would be traumatic and upsetting to patient”, “has intermittent encephalopathy”, “Severe pain and respiratory distress make a sufficient conversation of this issue impractical”, “Terminal illness”, “Patient clearly stated her wishes not to know the severity of her illness” and “Medical and/or surgical intervention for life support is futile”. In 4 (30.7%) of the 13 DNR forms, documentation was incomplete. Conclusions: Use of DNR by Therapeutic Exception was rare and evoked in only 2.07% of in-patient deaths in one year period. However, the reasons documented by the physicians are revealing and suggest the need for ongoing training in (1) the appropriate indications for the use of DNR by Therapeutic Exception (2) communicating with terminally ill patients (3) addressing goals of care early.

**Poster N°: 371 withdrawn**

**Poster N°: 372**

Type of presentation: Poster
Poster session: Second group 30 May Friday 13.30 to 31 May Saturday 13.30
Category: Evaluation of education programmes
Title: Outcomes for Nursing Students Following Clinical Rotation in End of Life Care
Authors: Barbara Lindenthal Bailey Center for Palliative Studies San Diego Hospice and Palliative Care U. STATES

**Background:** In 2002 San Diego Hospice and Palliative Care began an outreach program to two nursing schools offering a BSN degree. The program consists of two to four hour of classroom education and eight hours of clinical rotation caring for terminally ill patients in a twenty-four bed acute care center. Each student is assigned a nurse preceptor and has the opportunity to provide nursing care to the patients. **Methods:** Beginning with the academic year 2006 and continuing through 2007, students from each of the programs has completed a self analysis survey of ten items related to palliative and hospice care. The number is 350. The student was asked to evaluate competency regarding several nursing functions and activities related to end of life care. These include (but are not limited to) assessment of pain, use of a pain scale, identifying signs and symptoms of dying, caring for a dying patient and discussing end of life issues with patients/families. **Results:** Results indicate significant changes in seven of the ten items included on the survey. The greatest changes occurred in the ability to explain the difference between palliative and hospice care, participation in a hospice Interdisciplinary Group and providing patient/family education about end of life care. Additionally, there was a large increase in the number of students who identified an interest in pursuing a career in palliative and hospice nursing in the future. **Conclusions:** Results of this survey indicate that clinical experience does affect self report of competency for student nurses and enhances interest in pursuing future career opportunities.

**Poster N°: 373**

Type of presentation: Poster & poster discussion session
Poster session: Second group 30 May Friday 13.30 to 31 May Saturday 13.30
Category: Evaluation of education programmes
Title: Educational interventions in advanced care planning completion, a review of the literature
Presenting author: Jane Seymour
Authors: Brian Croshie Sue Ryder Centre for palliative & EoL studies School of Nursing UNITED KINGDOM
Caroline Sanders National Primary Care Research and Development Centre, The University of Manchester Manchester UNITED KINGDOM
Jane Seymour Sue Ryder Centre for Palliative & End of Life Studies, The University of Nottingham Nottingham UNITED KINGDOM

**Background:** This presentation reports on a literature review investigating educational interventions aimed at informing older people of Advance Care Planning (ACP). The review sought to examine evidence of reported success in terms of interventions; educational materials developed, and participants’ action towards some form of ACP. This review informs a new research project seeking to develop a peer education programme about end of life care (EoLC) for older people (funded by the Burdett Trust for Nursing, UK). **Methods:** A critical review using electronic databases including Ovid, PubMed and Web of Science. Inclusion criteria included educational intervention studies targeting adults over the age of 65 from 1994–2007 published in English. Keywords used: advance care planning, advance directives, living will, patient education, peer education, and elderly. Relevant papers were hand searched for further material. After criteria attrition, 9 papers were included for review purposes. Data review included items on participants’ background, method of educational intervention, evidence of success and reported steps towards individuals completing some form of ACP. **Results:** The review captured a variety of educational interventions, included discussion groups, individual counselling, and mailed information on ACP. The majority of studies report the use of written information, with three studies using other technology, namely video and interactive CD-ROM. Studies reporting outcomes documented a rise in the number of completed ACP items (advance directives and Durable Power of Attorney) within intervention groups as compared to control or other intervention group. **Conclusions:** This review identifies that interventions are mainly directed at increasing completion of instructional directives. Our current research project will address ACP process issues around statements of wishes and preferences in EoLC.

**Poster N°: 374**

Type of presentation: Poster
Poster session: Second group 30 May Friday 13.30 to 31 May Saturday 13.30
Category: Evaluation of education programmes
Title: Competences of nurses in palliative care in all settings in Flanders (Belgium)
Authors: Lieven De Maesschalck Heath Care KHK BELGIUM
Katrien Moens Federatie Palliatieve vzw Vlaanderen Wemmel BELGIUM
Mieke Grypdonck Universiteit Gent Gent BELGIUM
Paul vanden Berghe Federatie Palliatieve vzw Vlaanderen Wemmel BELGIUM
Tine Devlieger Universiteit Antwerpen Antwerpen BELGIUM
Inge Bossuyt Universiteit Ziekenhuizen Leuven Leuven BELGIUM

**Background:** Since the start of Palliative Care, we’ve seen an increasing number of courses and education programmes available for nurses that underpin the professionalization of Palliative Nursing. Today, due to all kind of education programmes on different levels, there is a lot of confusion about the level of education, the quality and content of the programmes, the value of the diploma/certificate, etc. The EAPC document ‘A Guide on the Development of Palliative Nurse Education’, offers a framework to
develop a concept of education for Palliative Care. This abstract will explain the methodology and will discuss the main results. The aims of this study were: A description of the presence and importance of the competences in all palliative settings; A description where these competences are and would be educated; A labelling in generic and specific. Methods: The list of competences in Palliative Care was used for a descriptive cross-sectional survey, after a validation study. 271 nurses from all settings in Palliative Care were included in the study. The mean age of the nurses was 41.8 (SD:7.5), there mean years experience were 28.6 (SD:7.9), with 7.5 years in Palliative care (SD:5.2). The majority of respondents were employed clinically as nurse (40%), 23% were in supervisory roles, 10% were in a coordinator role and 10% were teachers. Results: We could build up a ranking in order of importance and in order of presence. Starting from global means we developed fingerprints (with ridit-analyses) for each setting. These results show that each setting has its own specific profile and that the current curriculum in the nursing bachelor program is focused on palliative care in Nursing homes. Conclusions: These results lead to a global concept of education of Palliative Care. Every competence is labelled on A, B, or C level and we have proved also the gaps in training in every setting. Next steps could be the development of quality indicators for training and education programmes, developing a self-assessment instrument, etc.

**Poster N°: 375**

**Type of presentation:** Poster  
**Poster session:** Second group 30 May Friday 13.30 to 31 May Saturday 13.30  
**Category:** Evaluation of education programmes  
**Title:** Developing a multi-agency approach to improve non-cancer palliative care education  
**Authors:**  
Stephanie Gomm Hospital Palliative Care Team Salford Royal Foundation NHS Trust UNITED KINGDOM  
Catherine Byrne Salford Royal Foundation NHS Trust Salford United Kingdom  
Bethany Mills Salford Primary Care Trust Salford United Kingdom  
Sara Walsh St Ann’s Hospice Salford United Kingdom  
Barbara Jackson Salford Primary Care Trust Salford United Kingdom

**Background:** A 3 year project to improve access to Community Palliative Care for the residents of the city of Salford commenced in 2004 funded by Big Lottery Fund. The major elements were: (1) to improve access to palliative care out of hours, (2) to develop a patient and carer advice line, (3) to enable development of skills to meet the palliative care needs of non-cancer patients. Methods: To devise an effective training programme to meet the palliative care education needs of, and promote multi-agency working for generic health and social care staff, specialist palliative care teams and nurse specialists from cardiac, renal, respiratory and neurological services. A multi-agency education working group identified knowledge and skills gaps for non-cancer and palliative care for health and social care staff. The resultant education programme was devised and evaluated as follows: by use of questionnaires to establish training needs, and assess effectiveness following delivery of the education programme. Results: During 2006/2007 over 400 staff have undertaken the education programme with an overall 95% satisfaction and enabled changes in practice following participants’ attendance. New links were established between community, hospice, hospital and social care teams, and strengthened relationships between generalists and specialists. The profile of Palliative Care education was raised by the reciprocal exchange and delivery of non-cancer and palliative care education. The maintenance of the improved knowledge base across the Health and Social Care Economy was achieved by production of non-cancer and palliative care education materials, and by establishment of a specialist palliative care interest network (SPIN) for sustainability. Conclusions: The outcome was enhanced multi-agency partnership working by the delivery of a sustainable palliative care education programme to meet the needs of non-cancer patients, with increased knowledge and mutual understanding of individual and team roles for palliative care and non-cancer services.

**Poster N°: 376**

**Type of presentation:** Poster  
**Poster session:** Second group 30 May Friday 13.30 to 31 May Saturday 13.30  
**Category:** Evaluation of education programmes  
**Title:** An Exploration of Palliative Care Nurses’ Educational Needs in the Practice of Spiritual Care  
**Authors:**  
Deborah Hayden Education & Research Our Lady’s Hospice IRELAND

**Background:** Despite the prominence of spiritual care within the philosophy of palliative care, deficient evidence exists as to how spiritual care should best be taught. The study aimed to explore what palliative care nurses consider as important when learning about the spiritual dimension of palliative nursing care. The objectives of this study were to contribute towards ascertaining palliative care nurses’ educational needs in the practice of spiritual care, and to contribute towards developing a curriculum outlining the spiritual dimension of palliative nursing care. Methods: Utilising a descriptive-exploratory qualitative approach, data was collected using semi-structured interviews. Eight purposefully sampled Palliative Care Clinical Nurse Specialists answered the research question ‘what are palliative care nurses’ educational needs in practicing the spiritual dimension of palliative nursing care?’ Data analysis was facilitated by an adaptation of Burnard’s (1991) method of thematic content analysis. Results: The findings recommend that educators should develop palliative care nurses’ awareness of the attributes of the spiritual dimension of palliative care. Embedded in the attributes, are skills and qualities that are essential to spiritual practice, which educators should awaken. However, this is dependent upon the concept of ‘giving of time.’ Conclusions: In conclusion, educators should encourage reflection on and generation of simplistic talk about the practice of spiritual care, which will result in the practice being more recognised. Educators must appreciate that the facilitation of an experientially safe and supportive environment is vital, so that students will perceive the learning of spiritual care as more memorable, understandable, and relevant to their practice of palliative nursing care. Derived from a personal willingness and a sound moral and ethical ethos, the spiritual aspect of palliative nursing practice is quite plainly ‘good’ palliative care.

**Poster N°: 377**

**Type of presentation:** Poster  
**Poster session:** Second group 30 May Friday 13.30 to 31 May Saturday 13.30  
**Category:** Evaluation of education programmes  
**Title:** Changing the functional rehabilitation culture within care homes (nursing) to that of a palliative care approach: the evaluation of an intervention study  
**Authors:**  
Jo Hockley School of Community Health Sciences (GP) University of Edinburgh UNITED KINGDOM  
David Oxenham Marie Curie Hospice Edinburgh Edinburgh UNITED KINGDOM  
Keri Thomas GSF Central Team Birmingham UNITED KINGDOM  
Nikki Sawai GSF Central Team Birmingham UNITED KINGDOM  
Julie Watson University of Edinburgh Edinburgh UNITED KINGDOM  
Scott Murray University of Edinburgh Edinburgh UNITED KINGDOM

**Background:** Frailty, pain and other symptoms are issues for residents with multiple co-morbidities who live and die in care homes. A death-denying emphasis on functional rehabilitation in such a context is inappropriate. However, bringing about change where the context is ‘weak’ (i.e. lack of learning culture; poor multi-professional support; majority of staff are untrained) is complex. Methods: Aim & methods: To improve the palliative care knowledge/practice of care home staff through the parallel implementation of: The Gold Standards Framework for Care Homes · Macmillan learning pack: ‘Foundations in palliative care for care home staff’. An adapted Liverpool Care Pathway for care homes. In February 2007, the nursing home
managers of all seven nursing homes within one region in Scotland were invited to take part; all agreed. An experienced specialist nurse facilitates the implementation working alongside care home staff, general practitioners and specialist palliative care to encourage sustainable change. A mixed methods evaluation has been undertaken and will be repeated after the intervention. The evaluation includes: a palliative care audit of staff’s practice; ‘after death analysis’; interviews with general practitioners, relatives of residents who died in the home; and, fieldnotes of the facilitation process. Results: Preliminary results reveal a deficit of palliative care knowledge amongst staff and tensions caused by a lack of sufficient medical support. Nonetheless, through facilitation there is an increase use in proactive care planning, ‘do not attempt resuscitation’ orders, and the use of the Liverpool Care Pathway. Conclusions: Because of the ‘weak’ context of care homes, change is only likely to occur with projects that advocate ‘high’ facilitation. Without sufficient resource to ensure the appropriate implementation of end-of-life care tools, these tools will not get the credit that they deserve and true sustainability will be patchy.

Poster N°: 378

Type of presentation: Poster
Poster session: Second group 30 May Friday 13.30 to 31 May Saturday 13.30
Category: Evaluation of education programmes
Title: Teaching physicians basic palliative medicine. A pilot project
Authors:
Helle Hvarness Urological National Hospital, Rigshospitalet DENMARK
Henrik Larsen Department of Palliative Medicine. Bispebjerg Hospital København, DENMARK

Background: Patients in ordinary hospital wards have the same number of symptoms as patients in palliative departments. The need for skills and knowledge therefore is paramount and underlining the need for training programmes with documented effect. We wanted to develop a result orientated and effect controlled danish educational material. Methods: Six senior doctors from non-palliative departments were offered education by the two authors in basic palliative medicine. Teaching material (slides and lectures) was developed. Four topics were covered in a one-day teaching session. Each senior doctor was supposed to teach colleagues in some of the four topics. Tests were developed to document the effect of the senior doctors teaching. 47 physicians performed the test before the teaching session and 25 physicians completed the test three months later. 17 completed both tests and were evaluated. A screening instrument (EORTC QLQ-C15-PAL) was introduced. Before and after the authors teaching session the senior doctors had to screen at least two patients. The EORTC screening and a copy of the case notes were used to evaluate the treatment in the five departments. 15 EORTC schemes were returned; 10 before and 5 after the teaching session, but two of these were not useable. Results: The senior doctors held from none to four teaching sessions. The 17 physicians evaluated significantly improved their overall knowledge (p = 0.005). Wilcoxon Signed Ranks Test was used. The ten EORTC schemes filled out before teaching in the departments disclosed a median of 6.5 severe or very severe symptoms (range 2–10). After teaching a median of 5 symptoms were disclosed. However, the material is too small for statistical analysis. Conclusions: Our educational material and screening proved to be effective and useable/ adaptable for senior doctors when teaching younger colleagues. A larger material is needed to demonstrate a change in the performance of the organisation.

Poster N°: 379

Type of presentation: Poster
Poster session: Second group 30 May Friday 13.30 to 31 May Saturday 13.30
Category: Evaluation of education programmes
Title: Education on Palliative Care in the pre-graduated Nursing education in Portugal

Background: Nurses seem to feel some difficulties while accompanying terminal patients, which can be related to the lack of education that they possess in Palliative Care. Methods: Analysis of the study plans and programmed contents of the nursing courses taught by the Portuguese public superioer education, at the present time. Comparative analysis of the reality about the teaching of palliative care in the pre-graduate nursing education in Portugal, in face of the recommendations pronounced by the European Association for Palliative Care-EAPC and by the Associação Portuguesa de Cuidados Paliativos. Results: In 14 of the 23 schools that constituted the sample, Palliative Care is taught in an explicit way. This subject appears mostly at the level of the 2nd year of the course, with an average number of 12 hours of education. In several schools are taught subjects close related to palliative care, namely “The terminal patient” (8 schools) and “The person at the end of life” (11 schools). In these cases, the number of hours dedicated to its approach goes from 1 to 31 hours. 62.3% of the schools that teach Palliative Care in an explicit way fulfill the year of recommended education, 14.3% fulfill the number of hours and almost all of the praised domains by the EAPC are taught. Having in account the subject “The terminal ill person”, 62.5% of the scales meet the year of education, no school fills the number of hours and only the domains “The ill person” and “Self care and ethical aspects” are considered. In relation to the subject “The terminal ill person”, 36.36% of the schools that teach it fulfill the year of formation, 9.09% fulfill the number of hours; “The ill person” and “Self care and ethical aspects” are the most.boarded domains. Conclusions: Education on Palliative Care in the pre-graduated nursing education in Portugal is insufficiently systemized, dispersed and with a small number of hours dedicated. However, it is being made a notorious investment to include this subject in the nursing courses curricula.

Poster N°: 381

Type of presentation: Poster
Poster session: Second group 30 May Friday 13.30 to 31 May Saturday 13.30
Category: Evaluation of education programmes
Title: What is the impact of communication skills training for professionals involved with cancer patients on whole organisations? A case study of a 14 year programme with >1500 participants

Background: To explore the complexities involved in establishing, sustaining & measuring the wider impact of a communication skills programme running from 1993–2007. Methods: A case study involving interviews with trainers, trainees and managers of trainees. Trainees were drawn from a database of 1,500 nurses, doctors and AHPs and managers from the 14 hospitals served by the cancer centre. This study considered communication skills teaching as a complex intervention and investigated unplanned consequences in terms of behaviours, processes and longer term impacts on organisations. The theoretical underpinning is learning and change arise from human interaction (Love & Wenger 1991, Stacey 2001, 2002). Results: Early lessons confirm the value of the quality of a programme (facilitation, content, administration) demonstrating individual
improvements in communication skills. However, questions have emerged as to the evidence for sustainable impacts on whole organisations. **Conclusions:** Evidence based communication skills training is currently being rolled across the UK with evaluation based on self-assessment and confidence in communication. If this programme is to be sustained then more research is required to investigate the impact on whole organisations as well as individual improvement.

**Poster N°: 382**

Type of presentation: Poster  
Poster session: Second group 30 May Friday 13:30 to 31 May Saturday 13:30  
Category: Family & care givers  
Title: Predictors of Spanish hospital nurses’ views of relatives of terminally ill cancer patients  
Authors:  
Maria Arantzamendi Escuela de Enfermería Universidad de Navarra SPAIN  
Professor Alison Richardson King’s College London London UNITED KINGDOM  
Silvia Corchon Universidad de Navarra Pamplona SPAIN  
Ana Carvajal Clinica Universitaria de Navarra Pamplona SPAIN  
Ma Isabel Saracibar Universidad de Navarra Pamplona SPAIN  
Professor Julia Addington-Hall University of Southampton Southampton UNITED KINGDOM  
Marina Martinez Clinica Universitaria de Navarra Pamplona SPAIN  

**Background:** Palliative care’s philosophy emphasises the importance of caring for families, as well as patients. It is of concern therefore, that research evidence indicates that hospital nurses may perceive terminally ill patients’ relatives negatively. If true, this is a barrier to improving palliative care in hospitals which needs addressing. This study therefore explored hospital nurses’ views of terminally ill patients’ relatives and sought to identify personal and professional factors influencing these. **Methods:** A survey was conducted of all nurses working on acute wards with terminally ill patients in eligible hospitals in Navarre, Spain. 165 nurses participated (65% response rate). Factor and regression analyses were used in analysis. **Results:** Almost all thought nursing care should include the family (96%) but 26% felt uncomfortable talking to relatives, 43% that they interfered with nurses’ tasks and 61% found them very demanding. Factor analysis identified three factors: challenges with relatives, positive views of relatives and relative involvement. Multiple regression analysis found that nurses’ reports of finding relatives challenging were positively associated with their discomfort with death and dying, and with how challenging they found caring for terminally ill patients, and negatively associated with how motivated they were to care for these patients. Those with a Catholic faith had a more positive view of relatives, as did those who thought relatives should be involved in patients’ care. Whether they thought relatives should be involved in their care was also associated with how challenging nurses found caring for patients. **Conclusions:** Many hospital nurses find supporting patients’ relatives challenging. Interventions to tackle hospital nurses’ discomfort with death and dying and to increase their motivation to care for terminally ill patients should be developed as these predict nurses’ views of their relatives.

**Poster N°: 383**

Type of presentation: Poster  
Poster session: Second group 30 May Friday 13:30 to 31 May Saturday 13:30  
Category: Family & care givers  
Title: Bereaved Hospice Caregivers’ Communication with Health Care Professionals in the Transition to Hospice Care  
Authors:  

Ellen Csikai School of Social Work The University of Alabama U. STATES  
Shadi Martin The University of Alabama Tuscaloosa, AL U. STATES  

**Background:** In 2005, about one-third of those who died in the U.S. received hospice services (NHPCO, 2007). Direct and timely communications about diagnoses, prognoses and end-of-life care options may increase quality of life for patients and families at the end of life. Communication and education about the range of hospice services is essential for maximum hospice utilization, but little is known about how initial end-of-life care discussions are conducted. **Methods:** This qualitative phenomenological study was the second phase of a mixed-methods study aimed at understanding how the communication process proceeds and affects decisions to elect hospice. Ten bereaved hospice caregivers of patients over age 60 who received home hospice services were selected from respondents in the first phase. In-depth interviews were conducted within six months to one year post-patient death. Interviews lasted 1 1/2 to 2 hours, were audio-taped, and later transcribed. A semi-structured interview guide captured key aspects in end-of-life care discussions. Qualitative data analysis software was used to manage the large textual data. **Results:** Major themes that emerged from the data included: information known about diagnoses/prognoses; discussion of end-of-life care treatment; understanding and expectations of hospice; and involvement of health care professionals. Most information about end-of-life care came from physicians and social workers, with varying levels from other health care professionals. Also, participants lacked sufficient information and understanding about what patients would physically and emotionally endure in the dying process or about care needed prior to hospice enrollment. **Conclusions:** Collaborative communication, with social workers as liaisons between patients, families, and health professionals can facilitate informed decisions and ease transitions to hospice. Caregivers may then be better prepared to provide optimal care thus increasing quality of life when patients and families are most vulnerable.

**Poster N°: 384 withdrawn**

**Poster N°: 385**

Type of presentation: Poster  
Poster session: Second group 30 May Friday 13:30 to 31 May Saturday 13:30  
Category: Family & care givers  
Title: Materials to Prepare Hospice Families for Death in the Home  
Authors:  
Karen Kehl School of Nursing University of Wisconsin-Madison U. STATES  

**Background:** Despite general agreement that families should be prepared for the death of a loved one, there is a dearth of research. This descriptive study was designed to: 1) Determine the written materials used by hospices to prepare families for the last hours of life in the home, 2) Describe the content of such materials and 3) Compare the content of the written materials with criteria based on signs and symptoms likely to occur while the person is dying and Johnson’s self-regulation theory. **Methods:** A random sample of 400 hospices in the United States was surveyed, with 170 responding. **Results:** Most hospices (51.2%) used multiple documents. The most popular documents were Gone From My Sight (69.4% of the hospices), and Final Gifts (25.9%). Twenty-nine symptoms common in the final hours of life were categorized into each of the six domains of Johnson’s theory. These domains are patient sensory, family sensory, causes of signs and symptoms, temporal, environmental, and what to do. The signs and symptoms most often addressed include: fluid intake (93.5%), food intake (93.5%), breathing pattern changes (92.9%), cold extremities (92.4%), mottling (92.4%), sleep changes (91.8%), time of death (91.8%), audible respiratory secretions (91.2%), urine changes (91.2%), disorientation (90.6%), incontinence (90.6%), fatigue (90.0%), and restlessness (90.0%). The signs and symptoms of the last hours of life that were least mentioned include: mandibular breathing (5.9%), surge of energy (11.8%), vital sign changes (17.1%), skin changes (18.2%), bed bound care (18.2%),...
and most concerning, dyspnea (19.4%), and pain (28.2%). Most documents included information in the family sensory, cause of symptoms, and what to do domains. **Conclusions:** This study indicates most hospices do not have written information on key symptoms such as pain and dyspnea in the last hours. Additional research is needed to determine what information family caregivers value and how to deliver the information. Funding: Charles A. Eckburg Foundation.

**Poster N°: 386**

**Type of presentation:** Poster  
**Poster session:** Second group 30 May Friday 13.30 to 31 May Saturday 13.30  
**Category:** Family & care givers  
**Title:** Does the number of domiciliary visits have influence in family’s satisfaction in patients assisted by PCT?  
**Authors:**  
Ma Angeles Martín Fuentes de la Rosa Palliative Care Servicio Extremoño de Salud SPAIN  
Vicente Robíes Alonso Servicio Extremoño de Salud Plasencia SPAIN  
Patricia Hernández García Servicio Extremoño de Salud Mérida SPAIN  
Raul Pérez Asensio Servicio Extremoño de Salud Don Benito SPAIN  
María del Pilar Ruiz Márquez Servicio Extremoño de Salud Zafra SPAIN  
Laura Blanco Toro Servicio Extremoño de Salud Mérida SPAIN

**Background:** Satisfaction in terminally ill patients’ families after their death is an important result measure although there is not any good tool validated in Spanish. Let’s say that satisfaction is related with the palliative care teams (PCT) correct, would it be the number or the quality of these visit the cause of this result? The aim of this job is to determine if the number of domiciliary visits of the PCT has influence in the satisfaction level of terminally ill patients’ families. **Methods:** Prospective, analytic study forming part of a bigger job on satisfaction. Population to be studied: main caregivers in patients assisted by PCT once dead. Variables: number of domiciliary visits and family’s satisfaction level (0–10), both are quantitative, discrete variables. Tool: satisfaction (0–10) is not a validated tool but it has been previously used in palliative medicine in Spain. After the signature of an informed consent, the families were telephonically surveyed. An Excel table was used and a linear regression analysis was performed in order to determine the relationship between both variables. Considering the null and void hypothesis of non existence of relationship between both variables. **Results:** A total of 184 relatives of patients dead after following of the PCT. The result obtained in the linear regression was a value $R = 0.0203$. Excluding all the patients showing maximum satisfaction (the vast majority), the value $R^2$ was a value $R^2 = 0.0579$. **Conclusions:** It is provable that the used tool does not determine correctly satisfaction given the high number of relatives showing the highest value. After the necessary adjustments it could be observed certain relationship between the number of visits and perceived satisfaction.

**Poster N°: 387**

**Type of presentation:** Poster  
**Poster session:** Second group 30 May Friday 13.30 to 31 May Saturday 13.30  
**Category:** Family & care givers  
**Title:** Development of support services for family carers: challenges in partnership working  
**Authors:**  
Sheila Payne International Observatory on End of Life Care Lancaster University UNITED KINGDOM  
Christine Ingleton Centre for Health and Social Care Studies, University of Sheffield UNITED KINGDOM  
Terri O’Brien International Observatory on End of Life Care Lancaster University Lancaster UNITED KINGDOM  
Nolan Mike Community Sciences Centre University of Sheffield Sheffield UNITED KINGDOM

**Background:** Evidence suggests that support services for family carers of terminally ill people in the United Kingdom are often either not available, or do not adequately address the needs of carers. One of the challenges facing service deliverers is the necessity to work collaboratively across health and social care, and statutory and voluntary sector organisational boundaries. This study aims to evaluate challenges of partnership working faced by service deliverers developing new support services for family carers in the hospice voluntary sector. The paper draws on an evaluation commissioned by Help the Hospices, a national United Kingdom charity. **Methods:** A formative evaluation methodology has been used which focuses on the processes, structures and outcomes of the new services. Semi-structured interviews, at both the start and end of the service delivery, as well as the organizations’ reports, form the basis for exploring service deliverers’ experiences of providing services to carers. A carers’ questionnaire also assesses carers’ views about service utilisation. Preliminary qualitative analysis was conducted using content analysis. **Results:** Preliminary Results Data have been collected from 9 organisations. These include 31 initial interviews with service deliverers (employees and volunteers) and 14 follow up interviews. 15 carers have also completed the carers’ questionnaire, a 68% response rate from 3 organisations. Analysis of service deliverers’ interviews reveals different experiences of working collaboratively with other organisations. The paper discusses some of the difficulties faced by service deliverers, focusing on examples of successful and problematic partnership working arrangements with both internal inter-disciplinary teams and external agencies. **Conclusions:** This research illustrates the challenges of providing hospice services that interface with other community based services.

**Poster N°: 388**

**Type of presentation:** Poster  
**Poster session:** Second group 30 May Friday 13.30 to 31 May Saturday 13.30  
**Category:** Family & care givers  
**Title:** Experiences of bereaved family carers with end-of-life care and support by the primary care system in Austria  
**Authors:**  
Sabine Pleschberger Palliative Care & Organisational Ethics, University of Klagenfurt, IFF Vienna, AUSTRIA  
Katharina Heimerl Dept. of Palliative Care & Organisational Ethics, IFF, University of Klagenfurt Vienna AUSTRIA  
Klaus Wegleitner Dept. of Palliative Care & Organisational Ethics, IFF, University of Klagenfurt Vienna AUSTRIA

**Background:** In Austria most of the people who have care needs are being cared for by their families in their homes with support of home care services and GP’s without contribution of specialist palliative care. Nevertheless many of these people end up their lives in hospitals or nursing homes due to a low level of development in palliative care, as part of primary care or specialist services. Within an ongoing project that aims at developing palliative care within home care services of the Austrian Red Cross (Funding Organisation), a qualitative study was done to look at their capacities and potential problems. The presentation will focus on the issue of how family caregivers, looking back, experienced end-of-life care at home. **Methods:** A theoretical sample of bereaved family carers (n=15) supported by services of the Austrian Red Cross in one urban and two rural regions was interviewed, using open questions with narrative stimuli. The interviews were transcribed verbatim and analysed by using a coding procedure aiming at finding central issues. **Results:** Recognizing dying revealed to be a key problem to end-of-life care at home, especially in older people or diagnoses other than cancer. Making decisions on care, e.g. admission to hospital, and feeling responsible for that was a strain on the family caregivers. Furthermore they had to coordinate care as well as the communication between the involved parties. Although the home care nurses were highly appreciated for the care they delivered and the social support they had given to the family, they did not have a stake in advance care planning, coordination or decision-making. This was all up to the families and their GP’s, whose qualifications in palliative care...
varied much across the sample. **Conclusions:** Besides from further research there obviously is a need in developing and shaping the role of home care nurses in Austria to support families with advance care planning, coordination of care and communication with GP’s on interventions at the end of life.

**Poster N°: 389**

**Type of presentation:** Poster  
**Poster session:** Second group 30 May Friday 13.30 to 31 May Saturday 13.30  
**Category:** Family & care givers  
**Title:** The Family Conference: A Systematic Review  
**Presenting author:** Declan Walsh  
**Authors:**  
Ruth Powazki  
Harry R. Horvitz Center for Palliative Medicine  
Cleveland Clinic Taussig Cancer Center  
U. STATES  
Declan Walsh  
Cleveland Clinic Taussig Cancer Center  
U. STATES  
Ruth Lagman  
Cleveland Clinic Taussig Cancer Center  
U. STATES

**Background:** Family conferences (FC) are a major means of communicating with families of patients with advanced or complex illnesses like cancer. FC are time consuming, involve multiple staff, and costly. Because of these factors it is important to understand the FC evidence base. We reviewed the literature focusing on the FC in healthcare. **Methods:** We searched 6 computerized databases; references were searched by hand, and we reviewed textbooks in relevant disciplines. Papers were reviewed using the four main elements from the British Medical Journal Evidence-based Medicine Toolkit: Patient, Intervention, Comparison and Outcome to grade the strength of evidence. Studies were graded as randomized control trials (RCT), cohort, case series, or opinion. **Results:** Four medical practice areas predominated in the FC studies: Oncology/Palliative Care (ONC), Intensive Care Unit (ICU), Acute Care (AC), Family Practice (FP). 1 RCT and 3 ICU cohort studies, and 2 FP cohort studies were designed with outcomes to the family conference as an intervention. Sixty-four others were either lower quality cohort studies, case series, case reports, or opinion papers that identified FC, FC guidelines, knowledge and skills required of facilitators, needs of the family, FC barriers, and how to communicate. **Conclusions:** One FC RCT demonstrated the importance of a format with a proactive end-of-life conference coupled with a brochure. Prospective single arm ICU studies had positive outcomes. FC guidelines are largely based on expert opinion and case series for information needs. Outcomes research is needed to confirm the FC anecdotal benefits claimed, regardless of the medical setting and trajectory of illness.

**Poster N°: 390**

**Type of presentation:** Poster  
**Poster session:** Second group 30 May Friday 13.30 to 31 May Saturday 13.30  
**Category:** Family & care givers  
**Title:** A Study on day care as one of the services being offered by hospice  
**Authors:**  
Stella Rithara Wwari  
Palliative Care/ Day Care Nairobi Hospice  
KENYA

**Background:** Day care activities have been described as a form of 'sensory shielding.' By directing attention to something else, the patient less aware of noxious stimuli. **Methods:** A survey was developed to determine how the patients and families felt about the service. Explanation was done and 24 subjects volunteered to complete the survey, 16 patients and 8 family members. **Results:** 85% of the patient referred day care as a place to socialize, share their stories and encourage each other, by seeing and talking to others about their problems, it offers a form of distraction, which is one of the psychological method of relieving pain. They enjoy activities such as knitting, playing games, bead and singing. 15% attends once and refer day care as exposing their illness.80% families says it gives them time to do other things and re-charge their energies to care for their loved ones and it is part of occupational and rehabilitation therapy for their patients and some borrow different coping mechanism and so doing, they feel supported and not in it alone. 10% lacked time to drop or pick their loved ones, 10% feared their patients would not cope with group sharing. 75% patients find new friends while 25% fear knowing each other much, 90% families says patients are bright after day care while 10% disagree. **Conclusions:** Results indicate that majority of patients and families felt the service is importance and looked forward in attending. It shows psychosocial is one of the key area in having a better quality of life and need to be addressed. This study indicates day care service is valued and other Hospices need to implement in their services.

**Poster N°: 391**

**Type of presentation:** Poster  
**Poster session:** Second group 30 May Friday 13.30 to 31 May Saturday 13.30  
**Category:** Family & care givers  
**Title:**Does supporting terminally ill cancer patients dying at home introduce greater burden to family caregivers in Taiwan  
**Authors:**  
Siew-Tzuh Tang  
School of Nursing Chung Gung University  
TAIWAN

**Background:** Given the cultural meanings of dying at home, the majority of cancer patients in Taiwan prefer to die at home. Death at home does not come without significant challenges and consequences for family caregivers (FCs). The concern of being a burden to FCs has been identified as a major deterrent of preferences for dying at home. The literature provides inconsistent evidence for the impact of deaths at home on FCs grief reactions. However, comparisons of FCs caregiving burden/well-being while they provide end-of-life care to patients who eventually die at home or in a hospital have been limited. The purpose of this study was to investigate the differences on the amount of assistance provided, perceived subjective caregiving burden, quality of life (QOL), and depressive symptoms between FCs of Taiwanese terminally ill cancer patients who died at home or in a hospital. **Methods:** A prospective, longitudinal study was conducted among 187 FCs. Data were assessed every two weeks until the patient died. Differences on the selected variables were compared by a logistic regression model using a generalized estimation equation. **Results:** The results indicated that, over the dying process, the FCs of patients who died at home provided significantly greater amount of assistance in personal care, homemaking, transportation, and health care than their counterparts. However, caregiving did not introduce greater negative impact on their health, finance, or perceived family support to FCs of home-death group and they did not experience higher levels of depressive symptoms. Furthermore, FCs of home-death group reported non-significantly better QOL, more rewards and positive meaning derived from caregiving, and less disturbance on their daily schedule. **Conclusions:** Supporting a terminally ill cancer patient to die at home does not introduce greater burden for Taiwanese family caregivers and such a fact may be the reason why FCs can keep patients at home and let them die there.

**Poster N°: 392**

**Type of presentation:** Poster  
**Poster session:** Second group 30 May Friday 13.30 to 31 May Saturday 13.30  
**Category:** Fatigue & cachexia  
**Title:** Managing fatigue in Specialist Palliative Day Care  
**Authors:**  
Lena Baird  
Occupational Therapy The Ayrshire Hospice  
UNITED KINGDOM  
Joan Carrigan  
The Ayrshire Hospice  
Ayr  
UNITED KINGDOM
Background: Fatigue affects between 60% and 100% of cancer sufferers. More than 70% of patients with metastatic disease report fatigue. Sufferers report fatigue to be more debilitating than any other physical or mental consequence of the disease but only a minority of patients report being prescribed or recommended any treatment by any health professional. The most common advice given is to rest. The aim was to evaluate the effectiveness of a comprehensive, group programme in the management of fatigue, in otherwise relatively symptom free cancer patients with advanced disease.

Methods: Patients were recruited to the study using the Palliative Care Outcome Scale. The programme included: • Implementation of a personalised light exercise regime • Advice on energy conservation techniques • Dietary advice • Advice on managing sleep problems • Training in relaxation techniques • All aspects of the programme were underpinned by sound educational advice and materials The study was qualitatively evaluated on completion by the participants. Results: Levels of fatigue were monitored at commencement and end of programme using the Revised Piper Fatigue Scale and throughout the programme by fatigue diaries and visual analogue scales. Preliminary findings indicate that participants benefited from their fatigue being acknowledged and the opportunity to discuss its implications with health professionals and other sufferers. The educational and practical sessions were also deemed of benefit and most patients were able to adopt some aspects of the exercise programmes and relaxation techniques. Conclusions: It would appear that a structured psycho-educational programme is useful in helping patients manage cancer related fatigue although it is not within levels of fatigue experience. The results of this study were significant in supporting the implementation of this programme within the newly designed day care services.

Poster N°: 393

Type of presentation: Poster
Poster session: Second group 30 May Friday 13.30 to 31 May Saturday 13.30
Category: Fatigue & cachexia
Title: Cachexias: A 2007 State of The Art Review Of The Metabolic And Biochemical Abnormalities In Different Clinical Models Of Cachexia
Presenting author: Declan Walsh
Authors: Nabila Bennani-Baiti Cancer Center, Harry R. Horvitz Center For Palliative Medicine Cleveland Clinic U. STATES Declan Walsh Cleveland Clinic Cleveland, Ohio U. STATES Mellar Davis Cleveland Clinic Cleveland, Ohio U. STATES

Background: Cachexia, a wasting disorder, is frequently encountered in different chronic diseases. The purpose of this review of the literature is to compare the properties of cachexia in different clinical settings. Methods: Our Medline search was limited to English literature. Results: Our results show 4390 publications on cachexia. When combining MeSH terms of cachexia and any other disease: 2394 articles in cancer compared to only 257 for acquired immunodeficiency syndrome (AIDS), 222 for congestive heart failure, 52 for chronic obstructive pulmonary disease. There is no clear-cut definition of cachexia, a major hurdle in the progress of research. Loss of both lean body mass and fat mass is a common feature to all cachexias studied. This distinguishes cachexia from starvation. Cachexia, in all clinical models, is multifactorial. Inflammation is a major common component. Pro-inflammatory cytokines are involved both peripherally and centrally. Hypermetabolism is usual in cachexia. Resting energy expenditure is increased. However, the total energy expenditure may be unchanged as a result of a compensatory decrease in physical activity. Increased protein breakdown, glucose turnover, and lipolysis are frequently seen. Anorexia is present in most cachexias. In cancer, anorexia is not necessary for the wasting process to happen. Cachexia is resistant to nutritional support in most cases, except in AIDS where wasting responds to nutrition. Differences between cachexias are inherent to the disease itself and its management: hypogonadism and lipodystrophy in AIDS, cachectic obesity in rheumatoid arthritis, uremic syndrome in end-stage renal disease. Tumor-host interactions are unique to cancer. Conclusions: Research in cachexia is limited compared to its prevalence in many disorders. Even though the pathophysiology of cachexia differs from disease to disease, we found many similarities. This understanding may lead to a unified definition of cachexia.

Poster N°: 394

Type of presentation: Poster
Poster session: Second group 30 May Friday 13.30 to 31 May Saturday 13.30
Category: Fatigue & cachexia
Title: Animal Models For Cancer Cachexia: What Are The Options?
Presenting author: Declan Walsh
Authors: Nabila Bennani-Baiti Cancer Center, Harry R. Horvitz Center For Palliative Medicine Cleveland Clinic U. STATES Declan Walsh Cleveland Clinic Cleveland, Ohio U. STATES

Background: Cachexia in cancer is a complex syndrome often encountered in palliative medicine. The use of animal models has expanded our understanding of its multiple mechanisms. A review of different animal models in cancer cachexia will help investigators make an informed choice about the appropriate model to study cachexia. Methods: A PubMed/ Medline search was performed. MeSH terms used were: “biologic model” or “animal model”, “neoplasm” and “cachexia”. Results: Our search found 267 articles with 23 review articles. 96% were in English, 43% published during the last 10 years. Animal literature is extensive yet limiting when attempting to understand one particular mechanism in cancer cachexia. Animal models offer the advantage of tumor and host genetic homogeneity, well controlled studies without confounding variables such as food intake, comorbidities, variable tumor burden and multiple primary site, heterogeneity of host responses to cancer, which are important in the clinical settings. MCG101 is a good anorectic model, while MAC16 is an excellent model to study wasting-related metabolic effects. The Yoshida AH-130 and Lewis lung carcinoma cause severe wasting at very low tumor burden. However, clinical cachexia differs from animal models. For instance, wasting in breast cancer which is often a late event, varies between individuals, possibly due to genetic polymorphisms that influences cytokine expression. No animal model can provide an adequate explanation for inter-individual and inter-tumor differences seen in clinical cachexia; none reproduce clinical settings; many models induce cachexia only at higher tumor burden which is not clinically relevant and many do not initiate inflammatory reactions commonly seen in patients. Conclusions: Animal models are a good way to study the different mechanisms of cancer cachexia, but no model reproduces the range of cancer cachexia in humans and none reproduces the spectrum of tumor-host interactions.

Poster N°: 395

Type of presentation: Poster
Poster session: Second group 30 May Friday 13.30 to 31 May Saturday 13.30
Category: Fatigue & cachexia
Title: A Survey of the Attitudes of Patients Regarding Cancer Associated Weight Loss
Authors: Simon Coulter Cancer and Palliative Care Team RVH, Belfast Health and Social Care Trust UNITED KINGDOM Max Watson Northern Ireland Hospice Care Belfast UNITED KINGDOM

Background: Body weight is a contentious issue in society and a parameter given much attention in primary and secondary care, as well as in oncology settings. For those who are terminally ill, issues around weight loss hold great significance. Despite this, patients’ weight loss receives very little focus from, and is often ignored by healthcare professionals working in a palliative care setting. This may result from staff feeling powerless to effect change. As a result, patients may not have the opportunity to discuss important opinions, or have their information needs met. The primary objective of this study was to determine the attitudes of patients with advanced malignancy towards weight and weight loss. Methods: A cross sectional survey was conducted in
the Regional Medical Oncology Centre in Auckland, New Zealand. Results: The sample consisted of 54 patients with metastatic carcinoma. Fifty percent of participants stated weighing themselves at least weekly at home. Patients stated that monitoring weight served as an indicator of health. While some expressed worries around loosing weight, others expressed concerns over gaining weight. When asked to project how they might feel if they experienced weight loss, thirty percent stated they would feel good, while 55% stated they would be worried. Patients stated overwhelmingly that they would like to be aware of future weight changes with 91% reporting a desire for continued weight assessment. Seventy four percent of the study sample expressed a desire for continued assessment even if experiencing advanced cancer associated cachexia. Conclusions: Participant’s responses showed that attitudes to weight are complex. The majority of patients were keen to remain engaged with issues concerning weight change. Palliative healthcare professionals need to inquire if patients’ information needs are being met, emphasising the need for individualised care plans for those approaching the end of life, as well the centrality of patient autonomy.

Poster N°: 396

Type of presentation: Poster
Poster session: Second group 30 May Friday 13.30 to 31 May Saturday 13.30
Category: Fatigue & cachexia
Title: Association between CRP and Symptoms in patients assessed at a Cachexia Clinic (CC) with Involuntary Weight Loss (IWL)
Authors: Shalini Dalal Palliative Care and Rehabilitation Medicine The University of Texas M.D. Anderson Cancer Cnente U. STATES
Eduardo Bruera U.T. M.D. Anderson Cancer Center Houston, Texas U. STATES
Egidio Del Fabbro U.T. M.D. Anderson Cancer Center Houston, Texas U. STATES

Background: Inflammation is implicated in the pathogenesis of cancer cachexia and also in many other symptoms of cancer. CRP is a clinically useful marker for the severity of inflammation. The relationship between CRP and symptom distress in weight losing advanced cancer patients is not well known. Methods: We reviewed the charts of 67 advanced cancer pts referred to the CC with IWL. We sought to explore the relationship between inflammation (CRP) and symptom distress (Edmonton Symptom Assessment Scale). Descriptive analysis, Spearman's Rank correlation and Factor analysis (eigenvalue >1) were performed. Results: The median age was 64 (95% CI 60–66), predominantly males (66%). 46% of patients had GI malignancies. Median weight loss was 12% (95% CI 10–19 %) over 6 months. The median weight loss rate (kg/week) was 0.8 (95% CI 0.54–0.99) and 0.91 (0.29–1.06) in the 1 and 2 months preceding consultation, respectively. The median CRP levels was 1.95 mg/dl (95% CI 1.31–3.25) and was correlated with the median weight loss rate the day and earlier (for both, p <0.05). CRP levels of 1 or higher (43 pts) were found to correlate with sleep (r=0.47; p <0.01), wellbeing (0.43; <0.01), depression (0.31; <0.05), appetite (0.29;0.05), with trends for fatigue (0.26; 0.09) and drowsiness (0.28; 0.06). Factor analysis revealed a two factor solution with Factor 1 (fatigue, wellbeing, appetite) and Factor 2 (depression, SOB, CRP, sleep) explaining 99 % of the variance. Conclusions: Our study suggests an association between CRP and multiple concurrent symptoms that are commonly experienced by advanced cancer patients with IWL. Therapies that target inflammation may help in ameliorating symptom distress in these patients. Further research is warranted.

Poster N°: 398

Type of presentation: Poster
Poster session: Second group 30 May Friday 13.30 to 31 May Saturday 13.30
Category: Fatigue & cachexia
Title: Do corticosteroids really improve non treatment associated anorexia, cachexia or fatigue in cancer patients near the end of their life?

Authors: Hermann Ewald Clinic for Radiooncology University of Schleswig-Holstein, Campus Kiel GERMANY

Background: Anorexia, cachexia and fatigue are frequent and distressing symptoms in patients with end stage cancer. Megestrol acetate is known to improve appetite and weight. Corticosteroids are also recommended widely especially for patients near end of life but clinical experience lets assume an overestimation of corticosteroid effects for this group of patients. This may possibly be due to a bias in study results which may arise from patient selection e.g. the inclusion of patients under cancer treatment, where corticosteroids are known to lead to an improvement – mostly without affecting tumor induced symptoms but only treatment induced side effects. Methods: A limited systematic review was performed including literature till March 2007. Seven electronic databases were searched, and a hand search on text books and references of the retrieved literature was done. We focussed on patients without chemotherapy or irradiation. Results: Five relevante RCTs are retrieved with 745 patients randomized and 496 (66,6%) evaluated. Assessment and treatment periods varied widely and populations differed in survival. Four studies showed an improved appetite with corticosteroids during the study period, but one of them also with placebo. One study demonstrated improved cachexia but three others could not confirm these results. Improved activity scores are found in one trial. Three studies found no improved fatigue score and one only in the placebo group. Conclusions: There is some but limited evidence for an improvement of anorexia with corticosteroids during the last weeks of life in cancer patients with far advanced disease. It remains unclear which dosage and duration of treatment should be used and wether this effect lasts during the last 4–6 weeks of life. For clinical practice we recommend to try 4mg Dexamethasone for at least 4 weeks and if effective as long as the effect could be seen. Cachexia or fatigue seem to improve only in patients with a longer life expectancy.

Poster N°: 399

Type of presentation: Poster
Poster session: Second group 30 May Friday 13.30 to 31 May Saturday 13.30
Category: Fatigue & cachexia
Title: Palliative cancer patients’ experience of physical activity
Authors: Ingrid Gulde Geriatric clinic, Palliative unit Solertalje hospital SWEDEN
Cathrin Martin Department of Education, Uppsala University Uppsala SWEDEN
Line M Oldervoll Department of Cancer and Molecular Medicin, NTNU Trondheim NORWAY

Background: Physical activity (PA) has in recent years become more common in oncology rehabilitation and also proposed for use in palliative care. Results from pilot studies show that patients with advanced cancer report an increased well-being and less fatigue after PA. However, no studies have qualitative data about the patients own experience of PA. Aim: to gain a deeper understanding of how palliative cancer patients experience participation in PA. Study population: 11 patients (6 women/5 men) with different cancer diagnosis, participating in PA and receiving palliative care at home, were interviewed. A purposeful sampling with regard to age (45–81 years), gender, diagnosis and performance stage was made. Method: A qualitative design with audio taped semi structured interviews was used. Content was sorted in different themes and subcategories. Data collection and analysis were continued until data saturation was achieved. Findings: Four themes were identified: routines of every day life, less fatigue, professional guidance and hope. The theme “routines of every day life” had two subcategories: “something to do” and “being together with others in similar situation”. The theme “professional guidance” also had two subcategories: “the physiotherapist as a tutor” and “the physiotherapist as a motivator”. The findings indicate that PA helps to structure the day and gives extra energy for other activities. All patients report a sense of well-being related to PA. The physiotherapist was described to have an important role in motivating and guiding the patients in trusting their own body and knowing how to exercise wisely. Hope for the future was described as a result of being physically active including positive thoughts about the effect on the course of the
illness. **Conclusions:** Palliative cancer patients express a benefit from professional advice when engaging in PA in order to reduce fatigue and create routines of every day life.

**Poster N°: 400**

**Type of presentation:** Poster  
**Poster session:** Second group 30 May Friday 13:30 to 31 May Saturday 13:30  
**Category:** Fatigue & cachexia  
**Title:** Physical Activity as a Supportive Care Intervention in Advanced Cancer Patients: A Systematic Review  
**Presenting author:** Sharon Watanabe  
**Authors:**  
Sonya Lowe Oncology University of Alberta CANADA  
Kerry Courneya University of Alberta Edmonton CANADA  
Sharon Watanabe Cross Cancer Institute Edmonton CANADA

**Background:** Systematic reviews have concluded that physical activity improves supportive care outcomes in cancer patients, but the conclusions are based largely on data from early stage cancer patients. **Aim:** to systematically review the best available evidence of physical activity as a supportive care intervention in advanced cancer patients. **Methods:** CENTRAL, MEDLINE, EMBASE, CINAHL, SCOPUS, Web of Science, OCLC Papers First, OCLC Proceedings First, Proquest Dissertations & Theses, PEDro, CIRRIE, RehabData and PubMed were searched to March 2007. 3 peer-reviewed palliative care journals and reference lists of all included studies were handsearched. All published studies examining the effect of physical activity interventions on quality of life, fatigue and physical function outcomes in advanced cancer patients aged 18 years or older were included. Two independent reviewers screened the primary search results and reviewed the full texts of potentially relevant studies against the inclusion criteria. Double data extraction using pilot-tested paper forms, and methodological quality assessment using the validated Thomas tool were conducted. **Results:** Six studies were identified as meeting the inclusion criteria. There was significant heterogeneity in terms of study design, participant characteristics, type of physical activity intervention and outcomes, hence data pooling and meta-analysis were deemed inappropriate. The six studies generally reported positive effect of physical activity, however overall methodological quality of the studies was poor, mainly characterized by small sample sizes and lack of comparison groups. **Conclusions:** There is insufficient evidence to evaluate the efficacy of physical activity as a supportive care intervention in advanced cancer patients, although preliminary findings are encouraging. Methodologically rigorous studies with larger samples and appropriate comparison groups are warranted. Funded by NCIS/CCS Sociobehavioral Cancer Research Network.

**Poster N°: 401**

**Type of presentation:** Poster  
**Poster session:** Second group 30 May Friday 13:30 to 31 May Saturday 13:30  
**Category:** Fatigue & cachexia  
**Title:** Randomised controlled pilot study of neuromuscular electrical stimulation (NMES) of the quadriceps muscles as an exercise therapy in patients with non-small cell lung cancer (NSCLC)  
**Authors:**  
Matthew Maddocks Division of Physiotherapy Education University of Nottingham UNITED KINGDOM  
Andrew Wilcock University of Nottingham Nottingham UNITED KINGDOM  
Mary Levis Nottingham University Hospitals NHS Trust Nottingham UNITED KINGDOM  
Joanna Hocknell Derby Hospitals NHS Foundation Trust Derby UNITED KINGDOM  
Cathann Manderson Nottingham University Hospitals NHS Trust Nottingham UNITED KINGDOM

**Background:** Cachexia is common in patients with lung cancer leading to muscle wasting and interference with activities of daily living. New treatments are required. Exercise therapy may benefit patients with incurable cancer, but its application may be limited by low levels of uptake and adherence. NMES of the quadriceps muscles is an alternative approach which has benefited patients with COPD and chronic heart failure. **Aim:** To explore if NMES is worth pursuing as a proactive supportive therapy in patients with NSCLC. **Methods:** 14 patients (8 male), mean (range) age of 60 (41–71) years, FVC/FEV1 ratio 65% (29–83) and an ECOG performance status of 0 or 1 were randomised to a control or NMES group. The NMES intervention consisted of daily stimulation (50Hz, 0–120mA, duty cycle 11–25% delivered over one hour) to the anterior thighs for 4 weeks. Outcome measures were quadriceps muscle strength, walking endurance and free-living activity (step count) assessed by Cybex dynamometer, endurance shuttle walking test (ESWT) and AviciPAL activity monitor respectively. Changes in outcomes were compared between groups using tests of difference (p = 0.05). **Results:** Compared to the control group, the NMES group were younger and performed less well at baseline in all outcome measures. All completed the study and the assessments and NMES were acceptable. Data was lost in two patients due to technical failure (one each for Cybex and AviciPAL). The NMES group improved for each outcome measure while the control group deteriorated (table), but the differences were not statistically significant. **Conclusions:** Our findings suggest that further study of NMES is warranted in this group. Funding: Nottingham, Derbyshire and Leicestershire Research Alliance.
of patients. Modified programmes or novel forms of exercise are required if exercise is to be developed as a therapy applicable to the majority of patients. Funding: Dimbleby Cancer Care Trust.

**Poster N°: 403**

**Type of presentation:** Poster  
**Poster session:** Second group 30 May Friday 13.30 to 31 May Saturday 13.30  
**Category:** Fatigue & cachexia  
**Title:** Colo-rectal cancer-related fatigue predictors: results of a Brazilian study  
**Authors:**  
Cibele Pimenta Enfermagem Médico-Cirúrgica Nursing School of the University of Sao Paulo BRAZIL  
Dalete DCF Mota Nursing School of the University of Sao Paulo Sao Paulo/SP BRAZIL  
Juliano Santos Nursing School of the University of Sao Paulo Sao Paulo/SP BRAZIL

**Background:** Determining predicting factors of cancer-related fatigue may help refine fatigue measures, lead to faster diagnosis of the symptom, and lead professionals to propose interventions more efficiently. **Aim:** To identify independent predictors of fatigue in colo-rectal cancer patients.  
**Methods:** A convenience sample of 157 adult outpatients with primary colo-rectal cancer recruited from 4 oncology clinics at Sao Paulo (Brazil), from July/2006 to July/2007, participated (mean age 60±11.7 years; 54% men; mean scholarity 10.7±5.4 years). Patients filled out an Identification Profile, Brazilian revised-Piper Fatigue Scale (min:0; max:10; cut-off score: 4), Beck Depression Inventory (min:0; max: 63; cut-off score:12), and Karnofsky Scale (min: 0; max:100; cut-off score: 80%). **Results:** Fatigue was referred by 26.8% of the patients. Univariate analysis was performed by Chi-square test, T-test, Mann-Whitney according to the variables. Age, marital status, gender, skin color, scholarity level, employment status, family income, clinical staging of tumor, cancer treatment, time since surgery for cancer, body mass index, hemoglobin level, colostomy, co-morbidities, and antidepressants did not correlate to fatigue. The oncology clinic (public x private), pain, sleep disturbance, performance status, and depression significantly correlated to fatigue (p<0.05). Logistic regression analyses revealed that depression (OR:4.2; 95%CI 1.68–10.39), performance status (OR:3.2; 95%CI 1.37–7.51), and sleep disturbance (cut-off score >5;OR: 3.2; 95% CI 1.30–8.09) independently predicted fatigue. **Conclusions:** These results demonstrate that assessing depression, performance status, and sleep disturbance is possible to identify fatigued colo-rectal cancer patients, and these patients should be thoroughly assessed using a multidimensional fatigue instrument. Yet, it is important to include these three factors in all multidimensional fatigue measures. This study was funded by the State of Sao Paulo Research Foundation.

**Poster N°: 404**

**Type of presentation:** Poster  
**Poster session:** Second group 30 May Friday 13.30 to 31 May Saturday 13.30  
**Category:** Fatigue & cachexia  
**Title:** Co-morbidity fatigue and pain among women with breast cancer Authors:  
Cibele Pimenta Enfermagem Médico-Cirúrgica Nursing School of the University of Sao Paulo BRAZIL  
Daniela A. Lamino Nursing School of the University of Sao Paulo Sao Paulo/SP BRAZIL  
Dalete DCF Mota Nursing School of the University of Sao Paulo Sao Paulo/SP BRAZIL

**Background:** Fatigue and pain are the most prevalent and limiting symptoms among patients with cancer. Although they share similarities such as being multidetermined and multidimensional, the relation between them is not well elucidated. **Aim:** To characterize and to analyze the relation between pain and fatigue among women with breast cancer. **Methods:** A convenience sample of 182 adult outpatients with primary breast cancer (mean age 52.8±10.5; mean scholarity 12.4±4.6 years) participated from three oncology clinics at Sao Paulo (Brazil), from July/2006 to July/2007. They filled out a numeric scale for pain assessment (0–10; cut-off score: 4); and the Brazilian revised-Piper Fatigue Scale (0–10; cut-off score: 3). **Results:** Fatigue was referred by 40.7% (n=74) patients and pain was referred by 34.6% (n=63). Of the patients with fatigue (n=74), 53% (n=39) had pain; of the patients with pain (n=63), 62% (n=39) had fatigue. The difference between the mean score of fatigue among women with pain (5.3±1.8) and without pain (4.2±2.1) was statistically significant (T-test, p=0.012). The difference between the mean score of pain among fatigued women (3.4±2.8) and women without fatigue (3.7±2.7) was not statistically different (T-test, p=0.644). Pearson’s correlation coefficient between the symptoms was 0.379 (p=0.003), and the co-morbidity fatigue and pain occurred in 21.4% (n=39). **Conclusions:** The prevalence of fatigue was slightly superior to the prevalence of pain, and over 20% presented the co-morbidity fatigue and pain. Pain tends to increase the severity of fatigue but fatigue does not seem to influence the intensity of pain. This indicates that treating pain of fatigued patients will be beneficial, while treating fatigue of patients with pain will not influence pain severity. The correlation between the symptoms was moderate suggesting that many other factors influence both fatigue and pain. This study was funded by the State of Sao Paulo Research Foundation.

**Poster N°: 405**

**Type of presentation:** Poster  
**Poster session:** Second group 30 May Friday 13.30 to 31 May Saturday 13.30  
**Category:** Fatigue & cachexia  
**Title:** Co-morbidity fatigue and depression among colorectal cancer patients Authors:  
Cibele Pimenta Enfermagem Médico-Cirúrgica Nursing School of the University of Sao Paulo BRAZIL  
Dalete DCF Mota Nursing School of the University of Sao Paulo Sao Paulo/SP BRAZIL  
Juliano Santos Nursing School of the University of Sao Paulo Sao Paulo/SP BRAZIL

**Background:** The relation between fatigue and depression is not well understood leading to inadequate assistance. The present study had the purpose to characterize and to analyze the relation between fatigue and depression in colorectal cancer patients. **Methods:** Convenience sample of 154 adult outpatients (53% men; mean age 49.6±11.7 years; mean scholarity 8.9±5.4 years; 22% stage IV tumors; 80% preserved functional capacity) participated from four oncology clinics at Sao Paulo (Brazil), from July/2006 to July/2007. Instruments: Brazilian revised-Piper Fatigue Scale (0–10), Beck Depression Inventory (BDI; 0–63). **Results:** Fatigue was referred by 76 (49.4%) patients and 15 (19.7%) had severe fatigue (score≥Y6). Scores compatible with depression (BDI≥20) were observed in 11 (7.1%) patients. The correlation between the symptoms was 0.395 (Spearman’s correlation, p<0.001). Of the patients with depression (n=11), 64% referred severe fatigue, and of the patients with severe fatigue (n=15), 46.7% presented depression. Of the patients without depression (n=129), 58.1% did not have fatigue, and of the patients without fatigue (n=78), 96.2% did not have depression. The co-morbidity severe fatigue and depression occurred in 4.5% (n=7) of the patients, and co-morbidity moderate/severe fatigue and dysthymia/depression occurred in 12.3% (n=19) patients. Fatigue was refined by all depressed patients (100%) and depression occurred in 18% of the patients with moderate/severe fatigue. **Conclusions:** High prevalence of fatigue (49.4%), low prevalence of depression (7.1%), moderate positive correlation between fatigue and depression (r=0.395), and significant co-morbidity fatigue and depression (12.3%) were observed. The findings reinforce fatigue and depression as distinct concepts, and suggest that depression is more important in...
determining fatigue than fatigue is for depression. This study is unique in our culture and presents original results in the international scenario. Funded by the State of Sao Paulo Research Foundation.

**Poster N°: 406 withdrawn**

**Poster N°: 407**

Type of presentation: Poster  
Poster session: Second group 30 May Friday 13.30 to 31 May Saturday 13.30  
Category: Fatigue & cachexia  
Title: EPCRC draft recommendations for clinical practice guidelines on cancer cachexia in advanced cancer patients  
Authors:  
Peter Trottenberg Klinik für Palliativmedizin RWTH Aachen University GERMANY  
Frank Elnser Dept. of Palliative Medicine, University of Aachen Aachen GERMANY  
Florian Strasser Dept. of Internal Medicine, Cantonal Hospital St. Gallen SWITZERLAND  
Lukas Radbruch Dept. of Palliative Medicine, University of Aachen GERMANY  
Ken Fearon University of Edinburgh Edinburgh UNITED KINGDOM  
representing the EPCRC

**Background:** One of the aims of the European Palliative Care Research Collaborative (EPCRC) is to develop clinical practice guidelines on cancer cachexia to be implemented all over Europe. **Methods:** The workpackages on clinical practice guidelines of EPCRC agreed on a common method for guideline development, based on the NICE recommendations. Key questions will represent the scope of the guideline. Draft recommendations will be formulated with local expertise and presented to the expert-pool in a consensus procedure. Systematic literature reviews will be used to retrieve and grade the published evidence. Where adequate evidence is lacking consensus methods with both clinical cachexia experts, palliative care professionals, and other stakeholders will be applied. The final version of the guidelines will be published and updated regularly. **Results:** Key questions have been formulated and discussed at the EAPC-Congress in June 2007, as well as with experts and stakeholders on the web. A broad spectrum of fields and topics was included like definition, epidemiology, aetiology, pathophysiology, assessment and classification, psycho-social and ethical issues, as well as drug and non-drug treatment. Following this draft recommendations were formulated. For example the key question on the net benefit of megestrol led to the draft recommendation: “Do it (for short-intermediate term appetite stimulation and increase of body weight but not muscle mass)”. As a next step formal consensus using a Delphi procedure on the draft recommendations is planned. The draft recommendations will then be evaluated with systematic literature reviews wherever possible, leading to the final version of the guidelines. The workpackage on assessment and classification will contribute to the guidelines with their latest research results. **Conclusions:** EPCRC is on the way to develop guidelines. The rigorous methodological approach may enable the development of guidelines with high quality for palliative care professionals in clinical practice.

**Poster N°: 408**

Type of presentation: Poster  
Poster session: Second group 30 May Friday 13.30 to 31 May Saturday 13.30  
Category: Fatigue & cachexia  
Title: Review on the relation between fatigue and physical symptoms in advanced cancer patients  
Presenting author: Silvia van Dooren

**Authors:**  
Sanne Vlijmbrief Interne Oncologie Erasmus MC NETHERLANDS  
Silvia van Dooren Erasmus MC Rotterdam NETHERLANDS  
Wendy Oldenmenger Erasmus MC Rotterdam NETHERLANDS  
Karin van der Rijt Erasmus MC Rotterdam NETHERLANDS

**Background:** Fatigue is a common and complex symptom in advanced cancer patients and is known to considerably influence daily activity and quality of life. Although many patients suffer from fatigue, evidenced-based treatments are scarce. Fatigue can be considered as a multidimensional phenomenon and multiple causes of fatigue have been suggested. Several clinical guidelines report on the association between physical symptoms and fatigue and propose optimal symptom management in the treatment of fatigue. Better understanding of this association may lead to better treatment of cancer-related fatigue. **Aim:** To study published reports on the association between cancer-related fatigue and physical symptoms in advanced cancer patients. **Methods:** A literature search was performed using PubMed. Studies concerning the association between fatigue and physical symptoms in advanced cancer patients were included. **Results:** Five cross-sectional studies in advanced cancer were found. Sample size ranged from 95 to 227 patients, both in- and outpatients. In four studies, fatigue was assessed as a unidimensional construct. One study assessed five different dimensions of fatigue. Clinically relevant fatigue was reported in 44 to 78% of these patients. In all studies, the association between fatigue and physical symptoms was determined by performing multivariate analyses. All five studies found a relationship between fatigue and dyspnoea. Four studies reported pain and anorexia to be related to fatigue. One study found a relationship between nausea, vomiting and fatigue. **Conclusions:** There is evidence that fatigue in advanced cancer patients is related to physical symptoms. In case of causality of this relation, better symptom management should ameliorate fatigue. Randomized clinical trials on intensified symptom management are needed to further assess this relation.

**Poster N°: 409**

Type of presentation: Poster  
Poster session: Second group 30 May Friday 13.30 to 31 May Saturday 13.30  
Category: Fatigue & cachexia  
Title: Weakening of functional corticomuscular coupling during muscle fatigue  
Presenting author: Declan Walsh

**Authors:**  
Qi Yang Department of Biomedical Engineering Cleveland Clinic U. STATES  
Mellar Davis Cleveland Clinic Cleveland U. STATES  
Declan Walsh Cleveland Clinic Cleveland U. STATES  
Vlodek Siemionow Cleveland Clinic Cleveland U. STATES  
Yin Fang Cleveland Clinic Cleveland U. STATES  
Dilara Seyidova-Khosknabi Cleveland Clinic Cleveland U. STATES  
Vinod Ranganathan Cleveland Clinic Cleveland U. STATES  
Vindu Sahgal Cleveland Clinic Cleveland U. STATES  
Guang Yue Cleveland Clinic Cleveland U. STATES

**Background:** CRF is a primary factor that debilitates quality of life of cancer survivors. Little is known regarding its underlying pathophysiological mechanisms. We hypothesized that signals from the CNS would experience difficulties to get to the target muscle, which may lead to a reduction in corticromuscular functional connection during a voluntary motor task. The purpose of this study was to quantify EEG-EMG coherence at times when muscles experienced minimal and significant fatigue. **Methods:** Eight patients with advanced solid cancer (62.9 ±12.3 years) and 8 matched healthy controls (48.2 ±14.8 years) completed a Brief Fatigue Inventory (BFI) to assess the level of subjective fatigue and performed a sustained isometric elbow flexion contraction of the right arm at 30% maximal level (530) until self-perceived exhaustion. High-density 128 channel scalp EEG and EMG signals of the elbow flexor and extensor muscle were recorded during the
S30. Coherence between the EEG (left side) and biceps brachii EMG was determined during the first half (non-fatigue) and second half (fatigue task) of the S30. Coherence values above a significant level and number of significant frequency bins at (8–14 Hz) and beta (15–35 Hz) bands were statistically analyzed using repeated measures general linear model. **Results:** CRF patients showed significantly higher (P<0.01) BFI scores (5.37±1.01 for CRF and 0.85±0.56 for controls) and much earlier arrival (P<0.01) of perceived exhaustion (S30 lasted for 320 s for CRF and 550 s for controls), indicating greater fatigue in cancer patients. The EEG-EMG coherence in beta frequency (15–35 Hz) in non-fatigue stage was similar between the two groups. However, the coherence decreased significantly in the CRF (P<0.01) but not in the control (P>0.5) groups during the fatigue stage. **Conclusions:** CRF is associated with weakened functional binding between brain and muscle activities when muscle fatigue is present. EMG-EEG coherence in the latter half of a sustained contraction is lost in CRF.

**Poster N°: 410**

**Type of presentation:** Poster  
**Poster session:** Second group 30 May Friday 13.30 to 31 May Saturday 13.30  
**Category:** Medical sociology  
**Title:** Local networks of Palliative Care and integration of volunteers (CPC)  
**Authors:**  
Franziska Domeisen Palliative centre Kantonsspital St.Gallen SWITZERLAND  
Steffen Eychnmüller Kantonsspital, Palliative Centre St.Gallen SWITZERLAND  
Michaela Forster Kantonsspital, Palliative Centre St. Gallen SWITZERLAND  
Nicole Andrea Schneider Kantonsspital, Palliative Centre St. Gallen SWITZERLAND

**Background:** Starting point of the research is the need of severely ill and dying persons to spend their last phase of life in their familiar surrounding if support system is guaranteed on a 24– hours basis. In this Study the Gold Standards Framework (GSF), a Program for Community Palliative Care in England, will be used for the configuration of a successful network for the last time of life. The CPC-project contains a collaboration with the successful, carried by volunteers Neighbourhood Network Palliative Care in Southern India (Region North-Kerala). It seems that in Kerala the volunteer activities are more multifaceted than in Switzerland. This is possibly the reason for a major motivation and addressability of the population.

**Methods:** Structure of Palliative Care networks has been recorded by investigating the relations (content, frequency and quality) between the professional and volunteer organisations in Palliative Care in two communities in Eastern Switzerland and in Principality Liechenstein (urban, rural, mixed community structure) by face to face interviews (n= 35). Theoretical and statistical basis is the Network analysis, which is a suitable method for an explorative research of interaction networks with the objective of a better understanding of social structures and relations.

**Results:** In some extent, existing networks are reaching some of the GSF-goals. There are also barriers for good collaboration that affect the quality of care. The barrier factors are in communication, time management, finances and expertise. The main barrier factor is a lack of communication (interindivial, –organisational, intraorganisational). **Conclusions:** Interdisciplinary communication could be improved and be important for enabling the primary care teams. The integration of volunteers varies enormously: from 15% workload up to 80%. The tasks of volunteers are mainly defined as “lay carers”, but do not encompass others like organisational issues, information etc. as in Kerala.

**Poster N°: 411**

**Type of presentation:** Poster  
**Poster session:** Second group 30 May Friday 13.30 to 31 May Saturday 13.30  
**Category:** Medical sociology  
**Title:** Patient and physician-related barriers to cancer pain management with opioid analgesics: a systematic review of the literature

**Authors:**  
Ramune Jacobsen Pharmacology and Pharmacotherapy University of Copenhagen DENMARK  
Claus Møldrup University of Copenhagen Copenhagen DENMARK  
Lona Christrup University of Copenhagen Copenhagen DENMARK  
Per Sjøgren Danish National Hospital Copenhagen DENMARK

**Background:** The prevalence of pain in cancer patients is high. Under-treatment of cancer pain can be caused by the barriers to the use of opioid analgesics. The objective of this study was to describe and summarise the findings from the literature regarding patient and physician-related barriers associated with opioid treatment of cancer pain. **Methods:** The literature search was conducted in PUBMED. **Results:** Thirty-eight relevant papers on patient-related barriers were identified. The majority of these articles studied cognitive barriers, while affective and sensory barriers, as well as pain communication and pain medication adherence were studied to a lesser extent. The findings from different studies regarding the relationship between cognitive barriers and pain intensity were not consistent. Nevertheless, cognitive barriers were consistently related with less optimal adherence to opioid analgesics. The findings on pain communication were also consistent: the quality of pain communication was consistently found to be inadequate in some key areas. Seventy papers on physician-related barriers were identified. Most of physicians understood the importance of cancer pain management, but did not have enough confidence in treating cancer pain. The most common barriers preventing physicians from prescribing adequate doses of opioids were concerns about side-effects. At the same time, treatment of side effects from opioids was found to be very poor. Physicians’ barriers to cancer pain management varied considerably in different countries. **Conclusions:** Further research is needed to differentiate the role of patient-related cognitive, affective and sensory factors with respect to their impact on pain relief and medication adherence. The evaluation of the influence of a cultural background on physician-related barriers, as well as the differences in barriers between different specialists involved in cancer patients’ care should be explored to obtain a better insight into the area of unresolved cancer pain.

**Poster N°: 412**

**Type of presentation:** Poster  
**Poster session:** Second group 30 May Friday 13.30 to 31 May Saturday 13.30  
**Category:** Medical sociology  
**Title:** From “cura palliativa” to “palliative care”  
**Authors:**  
H. Christof Müller-Busch Anesthesiology, Palliative Medicine and Pain Ther. GK Havelhoehe, University of Witten/Herdecke GERMANY  
Matthias Kraska University of Witten/Herdecke Witten GERMANY

**Background:** The differentiation of curing and caring is a core element of our modern understanding of the term palliative. However the word palliative has been used in the medical and in the non-medical literature in Germany, France and England since the 17th century in different connotations. Caring and curing are traditional elements of medicine. **Methods:** A systematic linguistic literature research in the internet, in dictionaries and old encyclopedias in german, english, french and other languages of the 17th, 18th and 19th centuries was performed to find out, in what medical and non-medical context the term palliative was used. The sources found were further analysed systematically. **Results:** The term palliative is already mentioned in encyclopedias of the 15th and 16th century. The characteristics of “cura palliativa” can be found in medical papers of the 17th and 18th century and were described as distinctive approaches and forms of medical treatment. To “palliate” had different meanings in different languages. Palliation was distinguished from “curing” as a special form of cure, but “caring” and “curing” were not distinguished as different forms of concern. In the 16th and 17th century the word “care” was not found in a medical context, while with the conceptualization of “curative medicine” in the 19th century, the term palliative was found less in medical sources but more in philosophical and lyrical texts. With the introduction of “palliative care”
in 1974 the words palliative and care were linked together in the special context of supportive care, symptom management and comfort care what can be found before in the concepts of “cura palliattiva”. **Conclusions:** The etymology of the term palliative is associated with different understandings of cure and care in medicine. Though “care” and “cure” seem to be linguistically closely related further studies should be done to find out, when and how the different meanings developed.

**Poster N°: 413**

Type of presentation: Poster  
Poster session: Second group 30 May Friday 13.30 to 31 May Saturday 13.30  
Category: Medical sociology  
Title: The Interdisciplinary Team Meeting: Themes  
Presenting author: Declan Walsh  
Authors:  
Ruth Powazki Harry R. Horvitz Center for Palliative Medicine Cleveland Clinic Taussig Cancer Center U. STATES  
Matt Karafa Cleveland Clinic Cleveland U. STATES  
Deean Walsh Cleveland Clinic Cleveland U. STATES  
Wiel Lasleen Cleveland Clinic Cleveland U. STATES

**Background:** In our 23-bed inpatient acute care palliative medicine unit the interdisciplinary team (IDT) meets daily for at least 30 minutes to plan patient care. The IDT includes staff physicians, clinical fellows, medical residents, consult staff, unit nurse manager, clinical nurses, social worker, hospice referral nurse, music therapist, and research fellows. **Methods:** One day a week over an 8-week period a research fellow recorded complexities in patient care planning. The objective was to identify patient care planning issues (themes) discussed by the IDT in a prospective observational study.  
**Results:** 59 patients were included. There were nine themes 1) multidisciplinary perspectives, 2) transition from anti-tumor treatment, 3) caregiving, 4) goals of care, 5) resource use, 6) psychosocial assessment, 7) clinical operations, 8) discharge resources, 9) spokesperson. Using the Ward method of hierarchical cluster analysis these were grouped into four clusters. Cluster 1: (Themes-5, 7) Inappropriate resource utilization associates with the need for clinical operations review. Cluster 2: (Themes 6, 9, 8) A family spokesperson and psychosocial assessment facilitated discharge planning. Cluster 3: (Themes 3, 4 and 6, 9, 8) Caregiving concerns and unclear goals of care clustered with discharge planning, psychosocial assessment, and a spokesperson. Cluster 4: (Themes 1, 2) Differing viewpoints arise from the unique skills and knowledge of the various disciplines that make up the IDT and bring together the information needed to assist in transition from anti-tumor treatment. **Conclusions:** We identified 9 IDT themes when planning patient care. Limitations are possible observer bias and small sample size. Further research should confirm our findings; potentially identify more themes and their influence on patient care and resource utilization.

**Poster N°: 414 withdrawn**

**Poster N°: 415**

Type of presentation: Poster  
Poster session: Second group 30 May Friday 13.30 to 31 May Saturday 13.30  
Category: Neurological disorders  
Title: Patient storylines on living whilst facing death from motor neurone disease  
Authors:  
Janice Brown School of Nursing & Midwifery University of Southampton UNITED KINGDOM  
Julia Addington-Hall University of Southampton Southampton UNITED KINGDOM

**Background:** The study aimed to add to the sparse evidence base of how people deal with the reality of facing death from motor neurone disease, a disabling and life limiting neurological disorder, through exploring types of patient narratives. Little is known about how people live or cope with motor neurone disease, particularly as patients know they are approaching end of life. Gathering stories from people with motor neurone disease offers an approach to further this understanding. Patients all have their unique ‘plot’ to tell but the elements may be complex and intertwined with existing ‘plots’ or ‘storylines’ from their culture. This study explores storylines within the stories of people living with this disabling and terminal disease. **Methods:** Narrative case studies were used to explore patient experiences and how they talk about coping with motor neurone disease. Thirteen adult patients living in the community in the South of England were recruited through purposeful sampling. Longitudinal narrative interviews were conducted at three monthly intervals over an 18 month period between July 2005 and December 2006. First interviews were analysed focusing on the form and content of the patients’ narratives. **Results:** Four types of narrative, or storylines, are identified regarding how people talk about living and coping with motor neurone disease. They are named ‘fracturing’, ‘sustaining’, ‘preserving’ and ‘enduring’. **Conclusions:** Storylines help make sense of complex narratives by encouraging closer attention and active listening to the stories. The four storylines identified in this study offer unique insight into patients’ approaches to facing death and they serve as an organising thread to help patients, families, and health care professionals better understand living with motor neurone disease.

**Poster N°: 416**

Type of presentation: Poster  
Poster session: Second group 30 May Friday 13.30 to 31 May Saturday 13.30  
Category: Neurological disorders  
Title: Nonconvulsive status epilepticus in terminally ill patients – a diagnostic, therapeutic and ethical challenge  
Presenting author: Giandomenico Borasio  
Authors:  
Stefan Lorenzl Palliative Care Klinikum Grosshadern GERMANY  
Simon Mayer Department of Palliative Medicine Munich GERMANY  
Gian D Borasio Department of Palliative Medicine Munich GERMANY

**Background:** Nonconvulsive status epilepticus (NCSE) is characterized by progressive sequential or simultaneous failure of endogenous anticonvulsant barriers. Clinical symptoms may include only altered mental status or behaviour without convulsive activity. Besides primary brain tumors and brain metastases, metabolic changes are the most common underlying reason. NCSE has been reported in about 6 % of patients with systemic cancer without evidence of central nervous system involvement, and in up to 20 % of patients with primary brain tumors or cerebral metastases. **Methods:** We evaluated 42 terminally ill cancer patients whose clinical symptoms suggested NCSE using electroencephalography. **Results:** NCSE was diagnosed in 23 patients. Of these, 5 patients had not been previously treated with antiepileptic drugs. In 7 patients the NCSE had been unrecognised for several days. Antiepileptic drug treatment with benzodiazepines and anticonvulsants was immediately started in all patients, and led to cessation of the epileptic activity in 3 patients. **Conclusions:** The incidence of NCSE may be underestimated due to the lack of diagnostic evaluation. The treatment options in a palliative care setting are limited, if admission to the intensive care unit is to be avoided. Although chances of full recovery from NCSE are slim, there may be a possibility to halt the epileptic activity for hours to days and enable the patient to spend conscious time with their relatives. In patients whose death is judged to be imminent, treatment with adequate doses of benzodiazepines and careful vigilance for potentially distressing symptoms will usually be the preferred course of action. More research into this syndrome and its treatment in terminally ill patients is urgently needed.
Poster N°: 417

Type of presentation: Poster
Poster session: Second group 30 May Friday 13.30 to 31 May Saturday 13.30
Category: Other non-cancer
Title: What about palliative care for advanced schistosomiasis patients?
Authors:
Samy AlSirafy Palliative Care Medicine King Faisal Specialist Hospital & Research Centre SAUDI ARABIA
Somaia Moussa Kasr Al-Aini School of Medicine, Cairo University Cairo EGYPT
Stuart Brown The International Network for Cancer Treatment and Research Brussels BELGIUM

Background: Although palliative care is directed mainly at those with malignant diseases, non-cancer patients can also benefit. In developing countries, patients at the end stage of transmissible diseases (e.g., AIDS, TB and malaria) are candidates for palliative care services. Schistosomiasis is endemic in 74 developing countries and the estimated number of infected people is 200 million. Of these, 20 million suffer severe disease consequences and 120 million are symptomatic. It is the cause of up to 280,000 annual deaths in sub-Saharan Africa alone. Two important schistosome species are endemic in the Nile valley and sub-Saharan Africa: Schistosoma mansoni, and Schistosoma hematobium. Chronic hepatosplenic schistosomiasis caused by Schistosoma mansoni is associated with portal hypertension, splenomegaly, ascites, and esophageal and gastric varices. The major cause of death is from bleeding esophageal varices. Other coexistent liver diseases e.g. hepatitis C may aggravate the clinical picture and end stage hepatocellular failure often occurs. Schistosoma hematobium causes urinary schistosomiasis which may lead to renal failure and/or urinary bladder cancer. The later usually presents at an incurable stage. Methods: We searched CINAHL, MEDLINE, and PubMed looking for articles about palliative care provision for patients dying of advanced schistosomiasis. Results: Although advanced schistosomiasis patients may experience suffering comparable to that of patients with other diagnoses for whom palliative care is provided, we failed to locate articles discussing palliative care for schistosomiasis patients. Conclusions: While prevention and treatment of schistosomiasis remains an ultimate goal, the provision of palliative care services for those suffering from the late effects of schistosomiasis is an area that needs more attention. Research is warranted to identify schistosomiasis patients who are likely to benefit from such services, to assess their needs, and to establish programs that can meet these needs.

Poster N°: 418

Type of presentation: Poster
Poster session: Second group 30 May Friday 13.30 to 31 May Saturday 13.30
Category: Other non-cancer
Title: End stage COPD and heart failure: differences between patients’ experiences
Authors:
Jolanda Habraken Department of General Practice Academic Medical Center NETHERLANDS
Dick Willems Academic Medical Center Amsterdam NETHERLANDS

Background: End stage COPD and heart failure are often regarded as similar because of their illness trajectory with long term limitations and intermittent exacerbations. The aim of our study was to identify not similarities but differences in patients’ experiences from both conditions. A new method, comparative keyword analysis, was used to identify these differences. Methods: We used transcripts of semi-structured interviews with 11 end stage COPD (16 interviews) and 26 heart failure patients (58 interviews). Comparative keyword analysis is suited to analyse large bodies of text and combines quantitative and qualitative techniques. Keywords in each text are identified quantitatively (using Wordsmith software) by calculating words that occur unusually frequent in comparison to the other text. Once these keywords are identified, interpretative (qualitative) analysis is needed. Results: Heart failure patients talk about lifestyle advices like fluid restriction and a low salt diet, whereas this subject is not found in the COPD patients. COPD patients talk about hospitals and rehabilitation centres, whereas heart failure patients talk about home care. COPD patients talk about symptoms such as breathlessness, breathing and coughing. Heart failure patients describe being tired and having pain. Interpretation: An end stage COPD patient spends a routine day mostly indoors, with fear of breathlessness and with little activities. Health care is provided in hospitals and rehabilitation clinics. An end stage heart failure patient spends a routine day worrying about the side effects of diuretics, complying to lifestyle restrictions and feeling tired. Health care is provided through home care. Conclusions: There are considerable differences in the way end stage COPD and heart failure patients experience their daily life. Palliative care for COPD patients requires a specific focus on psychosocial care while for heart failure patients the focus should be on living with (dietary) restrictions.

Poster N°: 419

Type of presentation: Poster
Poster session: Second group 30 May Friday 13.30 to 31 May Saturday 13.30
Category: Other non-cancer
Title: Megestrol acetate in the treatment of malnutrition in dialysis patients
Authors:
Monika Lichodziejewska-Niemierko Palliative Medicine, Nephrology Medical University POLAND
Justyna Golibiewska Department of Palliative Medicine Gdańsk POLAND
Boleslaw Rutkowski Department of Nephrology Transplantology and Internal Medicine Gdańsk POLAND

Background: Despite the huge headway that has been made in dialysis techniques, the symptom burden faced by dialysis patients remains unacceptable high. Among the most common problems experienced by these patients are anorexia and malnutrition. Megestrol acetate is a well-established treatment in anorectic cancer patients. However, it has not been widely used in dialysis population. To evaluate the efficacy and safety of megestrol acetate suspension in malnourished dialysis patients. Methods: In this multicentre, prospective, open-label study 26 hyperalbuminemic (albumin ≥38g/l) maintenance hemodialysis and chronic peritoneal dialysis patients took 160mg of megestrol acetate daily for a period of two months. Anthropometry, Subjective Global Assessment (SGA) score and biochemical indices of nutrition (serum albumin, triglycerides and total cholesterol concentrations) were performed on monthly basis. To assess the significance of the data Friedman’s ANOVA and Kendall’s coefficient of concordance tests were used, when appropriate. Results: All patients reported improved appetite, which was accompanied by an increase in the daily energy intake. There was a concurrent significant increase in mean body weight and BMI. SGA scores increased insignificantly. An increase in serum albumin concentration over the intervention period was observed, while concentrations of triglycerides and total cholesterol decreased. These changes were also not statistically significant. Side effects were common and included overhydration, diarrhoea and hyperglycaemia. Conclusions: Megestrol acetate may be an effective therapeutic agent in reversing poor appetite in carefully selected dialysis patients. Because of prevalent side effects it must be monitored closely. Further studies are needed to learn whether benefits of megestrol acetate would outweigh the side effects.

Poster N°: 420

Type of presentation: Poster
Poster session: Second group 30 May Friday 13.30 to 31 May Saturday 13.30
Category: Other non-cancer
Title: Symptoms in the month before death – cross-sectional analysis from a longitudinal survey of symptoms in patients with stage 5 Chronic Kidney Disease managed without dialysis
The current knowledge. The situation and palliative care needs of patients with rheumatologic diseases will clarify which symptom interventions are most needed, and which elements of (largely cancer-driven) models of palliative care best translate into non-cancer end-of-life care. We describe symptom prevalence & severity in the last month of life for patients with stage 5 chronic kidney disease (CKD) managed without dialysis. Methods: Longitudinal symptom survey in 3 UK renal units, using the patient-completed Memorial Symptom Assessment Scale-Short Form (MSAS-SF). Individual symptom prevalence is reported (and 95% confidence intervals, to reflect sample size), plus MSAS-SF subscales. Findings are directly compared to MSAS-SF data in the last month of life for cancer patients (Hwang, J Pain Symp Manag, 2003). Results: 74 patients (mean age 82, SD 6.6) were recruited (response rate 62%), and 49 (67%) died during the study. Symptom data in month before death was available for 38 (78%) of these decedents (mean age 81, SD 6.2, & mean time of data collection 18 days from death, SD 8.0). Symptoms in >1 in 2 patients were fatigue 97% (95% CI 86–100%), itch 92% (79–98%), dyspnoea 80% (75–97%), drowsiness 89% (75–97%), pain 84% (69–94%), poor concentration 84% (69–94%), poor appetite 82% (66–92%), swelling arms/legs 74% (57–87%), dry mouth 74% (57–87%), constipation 68% (51–82%), and nausea 55% (38–71%). Median scores (interquartile range) for MSAS-SF subscales were Global Distress Index 2.10 (1.76–2.28), Physical Symptom Subscale 1.73 (1.27–1.93), and Psychological Symptom Subscale 1.55 (1.27–1.83). Prevalence of both physical & psychological symptoms and level of symptom-related distress is notably higher than previously reported for advanced cancer patients in month before death, SD 8.0). Symptoms in >1 in 2 patients were fatigue 97% (95% CI 86–100%), itch 92% (79–98%), dyspnoea 80% (75–97%), drowsiness 89% (75–97%), pain 84% (69–94%), poor concentration 84% (69–94%), poor appetite 82% (66–92%), swelling arms/legs 74% (57–87%), dry mouth 74% (57–87%), constipation 68% (51–82%), and nausea 55% (38–71%). Median scores (interquartile range) for MSAS-SF subscales were Global Distress Index 2.10 (1.76–2.28), Physical Symptom Subscale 1.73 (1.27–1.93), and Psychological Symptom Subscale 1.55 (1.27–1.83). Prevalence of both physical & psychological symptoms and level of symptom-related distress is notably higher than previously reported for advanced cancer patients in month before death. Conclusions: Stage 5 CKD patients have major physical/psychological symptom burden in the last month of life which needs addressing with appropriate interventions & pertinent models of end of life care.

Authors:
Fliss Martagh Palliative Care, Policy & Rehabilitation King’s College London UNITED KINGDOM
Irene J Higginson King’s College London London UNITED KINGDOM
Julia Addington-Hall Southampton University Southamptton UNITED KINGDOM
Polly Edmonds King’s College London London UNITED KINGDOM
Karen Jenkins East Kent Hospitals NHS Trust Canterbury UNITED KINGDOM
Paul Donohoe King’s College Hospital NHS Foundation Trust London UNITED KINGDOM

Background: As palliative care extends to non-cancer, understanding symptom prevalence & severity as death approaches (and how this compares to cancer) will clarify which symptom interventions are most needed, and which elements of (largely cancer-driven) models of palliative care best translate into non-cancer end-of-life care. We describe symptom prevalence & severity in the last month of life for patients with stage 5 chronic kidney disease (CKD) managed without dialysis. Methods: Longitudinal symptom survey in 3 UK renal units, using the patient-completed Memorial Symptom Assessment Scale-Short Form (MSAS-SF). Individual symptom prevalence is reported (and 95% confidence intervals, to reflect sample size), plus MSAS-SF subscales. Findings are directly compared to MSAS-SF data in the last month of life for cancer patients (Hwang, J Pain Symp Manag, 2003). Results: 74 patients (mean age 82, SD 6.6) were recruited (response rate 62%), and 49 (67%) died during the study. Symptom data in month before death was available for 38 (78%) of these decedents (mean age 81, SD 6.2, & mean time of data collection 18 days from death, SD 8.0). Symptoms in >1 in 2 patients were fatigue 97% (95% CI 86–100%), itch 92% (79–98%), dyspnoea 80% (75–97%), drowsiness 89% (75–97%), pain 84% (69–94%), poor concentration 84% (69–94%), poor appetite 82% (66–92%), swelling arms/legs 74% (57–87%), dry mouth 74% (57–87%), constipation 68% (51–82%), and nausea 55% (38–71%). Median scores (interquartile range) for MSAS-SF subscales were Global Distress Index 2.10 (1.76–2.28), Physical Symptom Subscale 1.73 (1.27–1.93), and Psychological Symptom Subscale 1.55 (1.27–1.83). Prevalence of both physical & psychological symptoms and level of symptom-related distress is notably higher than previously reported for advanced cancer patients in month before death. Conclusions: Stage 5 CKD patients have major physical/psychological symptom burden in the last month of life which needs addressing with appropriate interventions & pertinent models of end of life care.

Poster N°: 421
Type of presentation: Poster
Poster session: Second group 30 May Friday 13.30 to 31 May Saturday 13.30
Category: Other non-cancer Cardio-pulmonary diseases
Title: Palliative Care in Rheumatic Diseases
Authors:
Steffen Simon Department of Palliative Care, King’s College GERMANY
Michael Schwarz-Eywill Palliative Care Centre Oldenburg/Internal Medicine Oldenburg GERMANY
Claudia Bausewein Department of Palliative Care, King’s College London London UNITED KINGDOM

Background: As palliative care extends to non-cancer, understanding symptom prevalence & severity as death approaches (and how this compares to cancer) will clarify which symptom interventions are most needed, and which elements of (largely cancer-driven) models of palliative care best translate into non-cancer end-of-life care. We describe symptom prevalence & severity in the last month of life for patients with stage 5 chronic kidney disease (CKD) managed without dialysis. Methods: Longitudinal symptom survey in 3 UK renal units, using the patient-completed Memorial Symptom Assessment Scale-Short Form (MSAS-SF). Individual symptom prevalence is reported (and 95% confidence intervals, to reflect sample size), plus MSAS-SF subscales. Findings are directly compared to MSAS-SF data in the last month of life for cancer patients (Hwang, J Pain Symp Manag, 2003). Results: 74 patients (mean age 82, SD 6.6) were recruited (response rate 62%), and 49 (67%) died during the study. Symptom data in month before death was available for 38 (78%) of these decedents (mean age 81, SD 6.2, & mean time of data collection 18 days from death, SD 8.0). Symptoms in >1 in 2 patients were fatigue 97% (95% CI 86–100%), itch 92% (79–98%), dyspnoea 80% (75–97%), drowsiness 89% (75–97%), pain 84% (69–94%), poor concentration 84% (69–94%), poor appetite 82% (66–92%), swelling arms/legs 74% (57–87%), dry mouth 74% (57–87%), constipation 68% (51–82%), and nausea 55% (38–71%). Median scores (interquartile range) for MSAS-SF subscales were Global Distress Index 2.10 (1.76–2.28), Physical Symptom Subscale 1.73 (1.27–1.93), and Psychological Symptom Subscale 1.55 (1.27–1.83). Prevalence of both physical & psychological symptoms and level of symptom-related distress is notably higher than previously reported for advanced cancer patients in month before death. Conclusions: Stage 5 CKD patients have major physical/psychological symptom burden in the last month of life which needs addressing with appropriate interventions & pertinent models of end of life care.

Poster N°: 422
Type of presentation: Poster
Poster session: Second group 30 May Friday 13.30 to 31 May Saturday 13.30
Category: Other non-cancer Cardio-pulmonary diseases
Title: Improving Symptom Control in Patients with End-Stage Chronic Obstructive Pulmonary Disease
Authors:
Michael Connolly Supportive and Palliative Care University Hospital of South Manchester UNITED KINGDOM
James Beattie Heart Improvement Programme Birmingham UNITED KINGDOM
Carolyne Heyes Heart Improvement Programme Leicester UNITED KINGDOM

Background: The need to improve end of life for people with heart failure is accepted by the World Health Organisation and the European Society of Cardiology have supported initiatives aimed at meeting this need. However, the perceptions of cardiologists are hitherto unknown. This consensus development process was designed to understand the views of cardiologists. Methods: A consensus process in the spirit of Delphi was used. Stage 1 – A national electronic survey was sent to each of the lead clinicians of the 32 cardiac networks in England asking a broad range of questions about the role of the cardiologist in end of life care. Fifteen surveys were completed. Stage 2 – An expert panel was invited to a consensus development conference. The panel consisted of 12 consultant cardiologists, two other consultants and one doctor working for a national heart charity. Panel members were twice asked to rate their agreement with 12 statements developed in Stage 1. A focus group discussion was audio taped and an attempt to identify agreement about the prognostic criteria was made. Six consensus statements were developed. Results: Cardiologists: • Embrace the need to improve end of life care and wish to be fully involved in that process • Have concerns that improving end of life care might distract from the need to improve the detection, diagnosis and treatment of heart failure • Approve of frameworks of care such as the Gold Standards Framework and the Liverpool Care Pathway • Call for clarity in the terms used and the symptom control guidelines applicable • Perceive a need for training of cardiologists, particularly in communication skills • Call for local and national leadership on this issue. Conclusions: Cardiologists wish to engage with colleagues in other specialties including palliative care to improve the end of life care for patients with heart failure. They identify the need for clarification of the terms used and prognostic indicators.

Poster N°: 423
Type of presentation: Poster
Poster session: Second group 30 May Friday 13.30 to 31 May Saturday 13.30
Category: Other non-cancer Cardio-pulmonary diseases
Title: Improving Symptom Control in Patients with End-Stage Chronic Obstructive Pulmonary Disease with FDE5 inhibitors
Title: Symptom distribution in haematologic patients and its influence on palliative care services

Authors:
Sergey Radoy Sechenov Moscow medical Academy Moscow RUSSIA
Georgiy Novikov Sechenov Moscow Medical Academy Moscow RUSSIA

Background: Chronic obstructive pulmonary disease (COPD) is a leading cause of morbidity and mortality in the Russian Federation; up to 12 millions suffer from COPD, more than 2 millions are disabled. Equal numbers of patients with COPD and lung cancer are therefore experiencing preterminal disease and are likely to require similar medical and social services. Dyspnea is common symptom in patients with COPD, especially in advanced disease; however, evidence-based approach to treatment is poor understood in Russia. Methods: 8 male patients with end-stage COPD (Criteria of end-stage COPD: Disabling dyspnea at rest (forced expiratory volume in 1 s [FEV1] <30% predicted); Increasingly frequent hospitalizations for chronic obstructive lung disease or infection; Hypoxemia: oxygen level <55 in room air; Hypercapnia: carbon dioxide level >50; Cor pulmonale and right heart failure secondary to pulmonary disease; Progressive weight loss >10% of total weight over last 6 mo; Resting tachycardia >100/min) were investigated (mean age 67.4±7.6 yrs) were investigated. The Charlson Comorbidity Index was 0.656. All the patients despite standard symptomatic therapy including oxygen therapy experienced dyspnea. Dyspnea was assessed with MRC and Borg scale. All the patients were treated with the FDE5 inhibitor vardenafil (20 mg/d) adjunctive to standard treatment. After follow-up period was (2 weeks) pulmonary function test, pulse-oxymetry, echocardiography and subjective sensation of dyspnea were assessed. Results: 6 of 8 patients experienced improve in dyspnea according to Borg scale. No significant changes in PFT, oxygen saturation and pulmonary hypertension were observed. Conclusions: FDE inhibitors may be used for palliative control of dyspnea in patients with end-stage COPD. Positive effects on dyspnea may be not attributed to decrease in pulmonary hypertension.

Poster N°: 424

Type of presentation: Poster
Poster session: Second group 30 May Friday 13.30 to 31 May Saturday 13.30
Category: Other symptoms
Title: Symptom Clusters: Pain, Fatigue, Mood and Function

Authors:
Angela Boyd Palliative Care Research Team, CRUK University of Edinburgh UNITED KINGDOM
Kenneth Fearon University of Edinburgh Edinburgh UNITED KINGDOM
Lesley Colvin University of Edinburgh Edinburgh UNITED KINGDOM
Rory Mitchell University of Edinburgh Edinburgh UNITED KINGDOM

Category: Other symptoms
Title: Symptom Clusters: Pain, Fatigue, Mood and Function

Authors:
Angela Boyd Palliative Care Research Team, CRUK University of Edinburgh UNITED KINGDOM
Lesley Colvin University of Edinburgh Edinburgh UNITED KINGDOM
Rory Mitchell University of Edinburgh Edinburgh UNITED KINGDOM

Conclusions: PC-Health professionals’ judgment of PAs important in PC match only partially common listed ADLs; social interactions and leisure activities seem also important in PC. Our findings may influence design of clinical trials using PA as outcome.

Poster N°: 426

Type of presentation: Poster
Poster session: Second group 30 May Friday 13.30 to 31 May Saturday 13.30
Category: Other symptoms
Title: Physical Activities important in Palliative Care: an expert survey. An EPCRC-project

Authors:
David Blum Oncology & Palliative Care Cantonal Hospital, St. Gallen, CH SWITZERLAND
Aurelius Omlin Oncology & Palliative Care, Cantonal Hospital St. Gallen SWITZERLAND
Jorunn L. Helbostad Dept. of Cancer Research and Molecular Medicine NTNU Trondheim NORWAY
Florian Strasser Oncology & Palliative Care, Cantonal Hospital St. Gallen SWITZERLAND
Line Oldervoll Dept. of Cancer Research and Molecular Medicine NTNU Trondheim NORWAY

Background: For many patients in palliative care (PC) limitations in physical activity (PA) contribute to suffering and affects family members. This study aims to describe which PA health professionals regard as important for PC patients. Methods: A survey among PC experts was conducted in Switzerland and Norway until 10/07, further centres are expected until 05/08. The semi-structured questions were developed from literature review and expert discussion and covered 4 domains: A) PA important in PC, B) Leisure and hobbies, C) PA and successful home return, D) PA and symptom control. Two independent researchers conducted a content analysis of each domain and differences on emerging categories were solved consensually. Frequencies (number or rates) were quantified. PAs important in PC were compared (only Switzerland) with items chosen by PC experts from a PA-battery (ADL [Barthel-Index], IADL [Lawton & Brody], Tinneti, local PA list). Results: 27/40 (66%) replied (12 doctors/12 nurses/3 physiotherapists; age 41 years [median], work experience 15 years). A) PAs important in PC: Mobility (27; transfer and mobility at home, going out); Hygiene (21; dress, toilet); Nutrition (12; prepare food and eat); Social interaction (9; talks, visits and sexuality); Sleep (4; rest and find peace). Agreement of frequencies of “important” PAs and PA-battery was less than 70%. B) PC patients keep the same hobbies (4), with a tendency to more passive (4) and social (16). Media (11), gardening (9) and cooking (7) were key hobbies. C/D) Main PAs for successful home return were mobility (17), nutrition (10), hygiene (10), ability to seek help (10); to monitor symptom control: walking (16), climbing stairs (7), and conversation (5). Conclusions: PC-Health professionals’ judgment of PAs important in PC
Background: Investigation of multiple symptoms and their interplay is an important area of research, as publications and guidance for the management of such symptom clusters is scant. Subsequently it is vital that all available data is utilised to aid advancement in this neglected field. With this in mind, we analysed a newly established database of 1126 cancer patients with the aim of examining the relationships between pain, fatigue, mood and function. Methods: Data from three large randomised controlled trials was organised into an optimal format for meta-analysis. The study population comprised lung, pancreatic and gastrointestinal cancer patients. Repeated assessments over 14 weeks were available for review, using the following tools: EORTC Quality of Life Questionnaire-C30 (EORTC QLQ-C30), the EuroQol EQ-5D questionnaire, Karnofsky and ECOG Performance Status scales and dynamometer grip strength. Univariate statistical analysis was performed and linear-by-linear chi-square test values were presented. Results: EORTC pain score was associated with reduced EORTC physical and emotional functioning at all assessments. A similar relationship was found between function and EQ-5D pain scores. Both physical and emotional functioning deteriorated over time for those patients with the highest pain scores. For this subgroup, performance status was reduced and also worsened with successive visits. Consistently higher EORTC fatigue scores were associated with both worsening EORTC and EQ-5D pain levels. Statistically significant associations were also found between EQ-5D usual activity and both EORTC pain (p<0.000) and EQ-5D pain (p<0.000), EQ-5D anxiety/depression and EORTC pain (p=0.000) and EQ-5D pain (p<0.000) and between Karnofsky and ECOG performance status and either EORTC or EQ-5D pain scores. Conclusions: Symptoms coexist and deteriorate in parallel. Common underlying pathophysiological mechanisms in symptom clusters along with clinical management needs research.

Conclusions: Conclusions This study shows the potential applicability and effects of the Shiatsu technique in reducing anxiety in hospice terminal cancer patients. Further studies aimed at appropriately proving Shiatsu efficacy are needed.
Background: Mood disorders are among the most distressing psychiatric complications in advanced cancer patients. Depression (D) and/or anxiety (A) can coexist with physical symptoms in these patients. There is inconclusive evidence about the relationship between D,A, and symptom expression. Purpose: To determine the association between the intensity of physical symptoms and the presence/severity of D and A determined by Hospital Anxiety and Depression Scale (HADS) scores in advanced cancer patients (pts). Methods: We retrospectively reviewed Edmonton Symptom Assessment System (ESAS) and HADS data of 216 pts who participated in clinical trials conducted by our group. We determined the severity of physical symptoms and the association with A and D. Results: The median age (range) was 59y (20–91), 38% female. 76% were white, 15% african american, and 6% hispanic. 79 pts (37%) had D (HADS-D>= 8) (23% mild, 11% moderate, and 2% severe). 94 pts (44%) had A (HADS-A>= 8) (29% mild, 12% moderate, and 3% severe). Using Wilcoxon Two-sample test (mean +/- SD), pts with D expressed higher fatigue intensity (6.3 +/- 2.3 vs 4.9 +/- 2.6, p<0.001), drowsiness (4.3 +/- 2.8 vs 2.5 +/- 2.7, p<0.001), and worse well being (5.8 +/- 2.1 vs 3.6 +/- 2.6, p<0.001). Pts with A expressed higher pain intensity (3.7 +/- 3 vs 5.4 +/- 2.8, p<0.001), nausea (2.5 +/- 2.7 vs 1.2 +/- 1.8, p<0.001), and worse well being (5.3 +/- 2.5 vs 3.7 +/- 2.5, p<0.001). 56 pts (26%) with A and D, expressed higher pain intensity (5.5 +/- 2.5 vs 3.5 +/- 3.0, p<0.001), fatigue (6.5 +/- 2.2 vs 4.7 +/- 2.6, p<0.001), nausea (2.6 +/- 2.5 vs 1 +/- 1.7, p=0.0001), drowsiness (4.3 +/- 2.9 vs 2.2 +/- 2.5, p<0.001), anorexia (5.4 +/- 2.8 vs 3.3 +/- 2.8, p<0.001), and worse well being (6 +/- 2.3 vs 3 +/- 2.5, p<0.001). Spearman’s correlation between HADS and ESAS-A and D were respectively 0.50 and 0.39 (p<0.001).

Conclusions: There is significant relationship between A and D and Physical Symptoms. Pts with both D and A express higher intensity of physical symptoms, such as pain, fatigue, drowsiness, anorexia, and worse well-being.
Background: Overall QOL has rarely been a primary outcome in palliative medicine clinical trials. The purpose of this study is to determine if QOL can be a reliable primary outcome in palliative medicine. 

Methods: A 2 week open label trial of mirtazapine in advanced cancer had QOL as the primary outcome, and symptoms (insomnia, anorexia, nausea, fatigue, worry, depression) as a secondary outcome. Initial 15 mg dose at night with the option to be increased to 30 mg at W2, if no response, or toxicity Gr 3 NCT-CTCAE. Entrance criteria by EORTC QLQ C-30: QOL <= 5 (1–7 NRS) and at least 1 symptom >= 2 (“not at all” – 4 “very much”). 

Ineligible (IN) patients with QOL at baseline and 7 were compared to study patients (ON) for symptom burden (number of symptoms and severity), and demographics using Chi square and two tailed T test unequal variances. Symptoms were dichotomized into any/mild (<= 2) and moderate/severe (> 2). Results: 188 screened, 30 refused, 110 IN, 48 ON. Ineligibility was: QOL 49 (45%), antidepressants 20%, chemoradiation 14%. Comparisons of 33 IN (complete data) vs 48 ON revealed no significant difference in age, gender and primary cancer site. Mean (SD) QOL: IN 6.5 (0.5) v ON 3.4 (1.2), p<0.0001. Symptom burden IN v ON: mean (SD) prevalence 3(2) v 4 (1); at least one symptom was present 30/33 (90%) v 48 (100%), p=0.009; mean (SD) severity 1.9 (0.6) v 2.3 (0.5). Only fatigue (p=0.002) more prevalent and severe in ON. As symptom numbers increased, QOL decreased for all (p=0.002), but not by subgroups, p=NS. When severity increased, QOL decreased for all (p=0.0002) and ON (p=0.003), but not for IN (p=0.004). 

Conclusions: QOL in palliative medicine correlates negatively with symptom severity and number of symptoms. If QOL is a primary outcome in a clinical trial, a selective bias can occur, as the symptom burden is also a factor.

Poster N°: 433 withdrawn

Poster N°: 434

Type of presentation: Poster
Poster session: Second group 30 May Friday 13.30 to 31 May Saturday 13.30
Category: Other symptoms
Title: Three step antiemetic ladder in the treatment of chronic nausea and vomiting and inoperable bowel obstruction in advanced cancer patients
Authors:
Wojciech Leppert Chair and Department of Palliative Medicine Poznan University of Medical Sciences POLAND
Jacek Luczak Chair and Department of Palliative Medicine, Poznan University of Medical Sciences Poznan POLAND
Slawomir Woźniak Palliative Care Department, Down Silesian Oncology Centre Wroclaw POLAND

Background: Three step antiemetic ladder for chronic n & v (CVN); first step metoclopramide, haloperidol and thieptylperazine, second dimenhydrinate, promethazine, dexamethasone and hyoscine derivatives, third levetiracetam and setrons. For patients with inoperable bowel obstruction (IBO) first step metoclopramide, haloperidol and dexamethasone, second dimenhydrinate, promethazine and hyoscine derivatives, third levetiracetam and ocreotide. Aim of the study: Assessment three step antiemetic ladder in treatment of CVN and IBO in advanced cancer patients. 

Methods: Clinical assessment of 510 patients with advanced cancer suffered from CVN induced by different causes, including 105 patients with IBO. Intensity: 0 – lack, 1 – weak, 2 – moderate, 3 – strong n & v. Assessment three times: (1) at beginning of care, (2) during symptomatic treatment and (3) at last week of life. Treatment was beneficial if decrease from strong or moderate n & v to mild or no symptoms and maintaining mild n & v or complete disappearance. Treatment failure when increase from no or mild to moderate or strong n & v and when moderate or strong n & v maintained.

Results: In all patients when comparing n & v during therapy (2) to beginning of care (1), beneficial results in 418 (82%) patients, lack of effect in 92 (18%) patients. In comparison last week of life (3) to treatment period (2) beneficial effects in 434 (85%) patients, lack of effect in 76 (15%).

In patients with IBO comparing n & v during therapy (2) to beginning of care (1) beneficial results in 62 (59%) patients – most frequently decrease of n & v to weak intensity. Comparing last week of life (3) to treatment period (2) therapeutic benefits observed in 54 (51%) of patients. 

Conclusions: Treatment of n & v according to three-step antiemetic ladder is beneficial in over 80% treated patients. However in over 40% of patients with IBO control of n & v was unsatisfactory, which indicates for using more intensive treatment and seeking more effective therapy methods.

Poster N°: 435

Type of presentation: Poster
Poster session: Second group 30 May Friday 13.30 to 31 May Saturday 13.30
Category: Other symptoms
Title: The assessment of psychological distress in patients with advanced Lung Cancer receiving Palliative Chemotherapy
Presenting author: Dympna Waldron
Authors:
Eileen Mannion Palliative Medicine University Hospital Galway IRELAND
Dympna Waldron Department of Palliative Medicine, University Hospital Galway Galway IRELAND

Background: It is difficult to assess psychological distress in patients with advanced cancer as symptoms occur in a continuum from sadness to adjustment disorders to major affective disorders. Sometimes emotional disorder is a result of the stress caused by a physical disability but somatic symptoms may be a manifestation of anxiety or depressive states. In addition a neurosis may co-exist with a physical illness causing the patient to be more distressed by the symptoms of their illness. 

Methods: 33 patients with advanced lung cancer receiving palliative chemotherapy were interviewed at time of first treatment (T1) using the Hospital Anxiety and Depression Scale (HADS) and the European Organisation for Research and Treatment of cancer quality of life questionnaire (EORTC-QLQ). The assessment was repeated at three months (T3). 

Results: At T1 the mean HADS score for depression was 4.84; median 4 (minimum 0, maximum 16). At T3 the mean depression score was 5; median 6. At T1 the mean anxiety score was 5; at T3 the mean anxiety score was 3.3 (minimum 0, maximum 13). All scores were within normal range. At T1 the mean Emotional Functioning (EF) score of the EORTC-QLQ was 72 (max score 100); median 75 (SD 18.5). At T3 the mean EF score increased to 89; median 91 (SD 8.7). 

Conclusions: These results indicate that this population does not appear to have an increased incidence of emotional distress. Findings suggest that patients are undergoing psychological adaptation to enable them to cope with their illness.

Poster N°: 436

Type of presentation: Poster
Poster session: Second group 30 May Friday 13.30 to 31 May Saturday 13.30
Category: Other symptoms
Title: Treatment of nausea and vomiting in palliative care units in Sweden – a survey of 1703 patients
Authors:
Ulla Martinsson Dept of Oncology Uppsala university SWEDEN
Eva Gyllenhaammar Väoby-Sigtuna ASIH Upplands Väoby SWEDEN
Staffan Lundström Dept of Palliative Medicine, Stockholms Sjukhem Stockholm SWEDEN
Background: Nausea and vomiting are common symptoms in palliative care, however difficult to treat. Methods: In March 2007 the palliative research network in Sweden (PANIS) sent out a web based questionnaire to the participating units in order to outline the treatment of nausea/vomiting. Registration was made by the responsible staff with no self assessment tools for the patients. The number of included patients was 1703; 60% were enrolled in advanced home care, 21% in palliative care counselling teams and 14% were treated in hospices. The median age was 70 years, 55% were women, 45% were men and 91% of the patients had a cancer diagnosis.

Results: Drugs for nausea and/or vomiting were prescribed in 928 patients (54%), 96% of whom had cancer. Eighty percent of them were on regular medication. The most frequent causes of nausea/vomiting were a large tumour burden (30%), chemotherapy treatment (29%), opioid treatment (27%), anxiety (14%) and constipation (12%). More than one aetiology was found in 443 patients. If the patients with chemotherapy/radiotherapy as the only causes of these symptoms were excluded, 780 patients remained. The most common drugs were metoclopramide (70%), corticosteroids (30%), haloperidol (17%) and serotonin antagonists (17%). A satisfying effect of the treatment of nausea was seen in 54% of the patients, the corresponding figure for patients with vomiting was 28%. For 34 of the patients, serotonin antagonists were used without neither chemotherapy nor radiotherapy, which are, beside postoperative emesis, the only registered indications for these drugs in Sweden. Still, 20 of these patients seemed to benefit from the therapy. Only 28% of the patients on antiemetic treatment had used a tool for self assessment of nausea. Conclusions: This descriptive cross-sectional study shows that medical treatment for nausea and/or vomiting is common in patients enrolled in palliative care. Nausea is more easily treated than vomiting. Individual self assessment tools are infrequently used.

Poster N°: 437

Type of presentation: Poster
Poster session: Second group 30 May Friday 13.30 to 31 May Saturday 13.30
Category: Other symptoms
Title: A pilot study evaluating the emerging theory of dry wound management in palliative wound care using the product YOUKI through the use of a multiple case study design and a clinical indicator tool (TELER)
Authors: Jane Mcmanus Nursing St Christophers Hospice UNITED KINGDOM
Patricia Grocott Florence Nightingale School of Nursing and Midwifery King's College London UNITED KINGDOM

Background: Current wound care can trace its roots to Winter’s seminal work on the epidermis of pigs. From this, moist wound healing theory and modern wound dressings have been developed. The wounds seen in palliative care are often challenging due to their aetiology or associated symptoms such as exudate, odour, infection, pain and problems with dressing fit. There may be a need in palliative care for alternative outcomes to be measured, and for alternative wound management strategies to be developed.

Methods: This pilot study investigates one alternative, dry wound management, using a specialised product ‘Youki’ to form a dry scab over the wound. This product is evaluated using the TELER (Treatment Evaluation by LE Roux’s method) clinical indicator tool, which has been successfully used in fungating wound care research. TELER provides a method of holistically assessing the patient with the wound, using the patient-focused principles of palliative care. A multiple case study design is used, which has been used previously with the TELER tool to evaluate dressings and the patient experience of wound symptoms. Youki will be evaluated using TELER with patients who have one of three types of wound: 1. Difficult to manage, exuding wounds 2. Superficial skin tears, lacerations, burns and grazes 3. Advanced, predominantly dry wounds that will not heal due to the limited patient’s life expectancy. Five patients are recruited into the study, three have pressure sores, one has lymphorrhoea and one a fungating wound.

Results: Despite the small sample number and the limitations and biases of the study, evidence is generated that dry wound management using Youki may have a role in the management of wounds in palliative care, and that the TELER clinical indicator tool is useful to measure the effects of Youki.

Conclusions: This pilot study has contributed to the generation of ‘case law’ in palliative wound care, and this pilot study should now be adapted to a larger study with statistical power to provide stronger evidence.

Poster N°: 438

Type of presentation: Poster
Poster session: Second group 30 May Friday 13.30 to 31 May Saturday 13.30
Category: Other symptoms
Title: Evaluation of constipation in patients using transdermal fentanyl with rescue opioids other than fentanyl in pain control
Authors: Toshihiko Nakatani Palliative Care Centre, Anaesthesiology Shimane University Hospital JAPAN
Ruko Hatto Palliative Care Centre, Shimane University Hospital Izumo JAPAN

Background: A retrospective open label study to evaluate the optimum prophylactic treatment for nausea and vomiting in cancer patients receiving fractionated radical or palliative radiotherapy.

Methods: 576 cancer patients were allocated in five treatment groups: 120 patients received Tropisetron, 129 Tropisetron plus Dexamethasone, 110 Metochlopramide, 119 Dexamethasone, and 107 received Metochlopramide plus Dexamethasone. To determine the optimum antiemetic prophylactic treatment, nausea and vomiting were evaluated at baseline, 24 and 72 hours after the initiation of radiotherapy (RT), and at the end of every week during RT. Adverse effects, Eastern Cooperation Oncology Group (ECOG) performance status, and the intensity of nausea and vomiting were recorded.

Results: Statistically significant differences in incidence and intensity of nausea and vomit were found between the five antiemetic treatment groups from the 1st till the 5th week of the RT. Tropisetron + Dexamethasone group had significantly reduced odds for nausea and vomit, and a significantly less severe nausea and vomit than any other treatment group. The factors statistically significantly associated with an increased ECOG were palliative RT, dose fraction <3, field size >200, treatment with Metochlopramide, Metochlopramide + Dexamethasone and Dexamethasone. Conclusions: Patients receiving prophylactically Tropisetron + Dexamethasone antiemetic treatment completed RT with lower intensity of nausea and vomiting and lower ECOG performance status scores.

Poster N°: 439

Type of presentation: Poster
Poster session: Second group 30 May Friday 13.30 to 31 May Saturday 13.30
Category: Other symptoms
Title: Evaluation of constipation in patients using transdermal fentanyl with rescue opioids other than fentanyl in pain control
Authors: Toshihiko Nakatani Palliative Care Centre, Anaesthesiology Shimane University Hospital JAPAN
Ruko Hatto Palliative Care Centre, Shimane University Hospital Izumo JAPAN
Background: Several kinds of opioids are used for pain control in palliative care, and constipation is a major side effect of opioids. Fentanyl is known to have less effect on opioid receptors in the gut than morphine, and we considered it possible constipation could be minimized by the exclusive use of fentanyl. But rescue with fentanyl other than by intravenous administration is not available in Japan. In clinical situations, other opioids are needed as a rescue instead of fentanyl when using transdermal fentanyl. There is little information on the relationship between constipation and the use of a fentanyl patch together with other rescue opioids. The aim of this study was to evaluate constipation when using fentanyl patch and rescue opioids other than fentanyl.

Methods: We retrospectively evaluated constipation in consulted patients over the past one-year period. For purpose of our study, we defined constipation as the failure to defaecate at least three times a week, or for the patient to have a sensation of insufficient evacuation. We divided the patients into two groups: One was a fentanyl group (FG), and the other was a non-fentanyl opioid group (NFG). Data was analyzed by chi-square test for independence. Results: Eighty-two patients were investigated. Thirty-three patients were using fentanyl patch (FG) and the other 49 patients were using other opioids (NFG). In the FG, constipation was noted in 14 patients (42%). Thirty patients in the FG used rescue opioids other than fentanyl. Constipation did not occur in three patients who did not need to receive rescue opioids. In the NFG, constipation was noted in 25 patients (51%). There was no significant difference between the two groups as to the incidence of constipation. Conclusions: We concluded that the transdermal fentanyl offered no relief from constipation when used with rescue opioids other than fentanyl.

Poster N°: 440

Type of presentation: Poster
Poster session: Second group 30 May Friday 13.30 to 31 May Saturday 13.30
Category: Other symptoms
Title: Factors influencing hospice thromboprophylaxis policy: a qualitative study
Authors:
Simon Noble Palliative Medicine Cardiff University UNITED KINGDOM
Annmarie Nelson Wales Cancer Trials Unit Cardiff UNITED KINGDOM
Ilora Finlay Cardiff University Cardiff UNITED KINGDOM

Background: Despite level 1 evidence supporting the use of low molecular weight heparin thromboprophylaxis in hospitalised cancer patients only 7% of special palliative care units (SCPU) has such guidelines. The reasons for this are unclear. A qualitative study was undertaken to explore the reasons for not providing thromboprophylaxis in SCPU. Methods: Audi-taped semi structured interviews were conducted with SCPU medical directors to explore factors influencing thromboprophylaxis practice. Purposive sampling of units known not to have thromboprophylaxis guidelines was conducted (as identified from previous research). The hospice directory was used to sample from units in each region of Great Britain and Ireland to ensure representation across the specialty. Interviews were transcribed and analysed for recurring themes to saturation, which occurred at twelve interviews. Results: The following themes were identified: Major 1. Venous thromboembolism (VTE) was considered an important issue but believed to be seen less frequently than is reported in the literature. 2. Thromboprophylaxis was considered a life prolonging therapy rather than a symptom prevention therapy. 3. The reported literature supporting thromboprophylaxis used outcome measures that were considered less relevant to the palliative care environment. 4. Prescribing was not influenced by concerns regarding health resource usage or side effect profiles. 5. There was a desire for further research in the palliative care population with relevant outcome measures. Minor 1. Thromboprophylaxis was considered countercultural to the philosophy of palliative care. 2. The attention given to thromboprophylaxis reflected the sequela of the speciality working more closely with mainstream medicine. Conclusions: There is a need for a well designed study to explore the utility of thromboprophylaxis in the palliative care inpatient setting. However, this will require meaningful outcome measures to be used within a clinically applicable population.

Poster N°: 441

Type of presentation: Poster
Poster session: Second group 30 May Friday 13.30 to 31 May Saturday 13.30
Category: Other symptoms
Title: Management of venous thromboembolism in patients with advanced cancer: a systematic review and meta-analysis by the thrombosis task group, on behalf of the APM Science Committee
Authors:
Simon Noble Palliative Medicine Cardiff University UNITED KINGDOM
Miriam Johnson St Catherines Hospice Scarborough UNITED KINGDOM
Mike Shelley Cochrane Unit, Velindre Hospital Cardiff UNITED KINGDOM
Bernadette Coles Cardiff University Cardiff UNITED KINGDOM
Andrew Wilcock Nottingham University Nottingham UNITED KINGDOM
Susan Williams Marie Curie Centre, Holme Tower Cardiff UNITED KINGDOM

Background: Venous thromboembolism (VTE) is common in patients with cancer but there are no management guidelines specific to the palliative care population. A systematic review of anticoagulation therapy in patients with cancer was undertaken to help develop recommendations for practice. Methods: All studies published after 1966 were identified from MEDLINE, The Cochrane Library, EMBASE, CINAHL, British Nursing Index, AMED, Web of Science and SCOPUS, using word terms ‘neoplasms’ or ‘palliative care’ and ‘thromboembolism’ or ‘anticoagulants’. Studies were included if they analyzed the management of VTE in cancer patients with incurable disease. Results: The initial search produced 5884 citations, 62 of which met the inclusion criteria. The quality of all articles was assessed independently by 2 reviewers and 28 publications consisting of randomised (5), prospective (10) and retrospective (11) studies, case series (2), an audit and a survey were used in the review. Data suggests that: long-term full dose LMWH is more effective than warfarin in the secondary prophylaxis of VTE in patients with cancer of any stage, performance status or prognosis; warfarin should not be used in patients with advancing progressive disease; in patients at high risk of bleeding, full dose LMWH for 7 days followed by a reduced fixed-dose long-term, e.g. dalteparin 10,000 IU daily can be considered. The optimal treatment duration is unclear, but since the pro-thrombotic tendency will persist in patients with advanced cancer, indefinite treatment is recommended. For patients with contra-indications to anticoagulation, caval filters can be considered, but their use requires careful patient selection. Conclusions: The decision to initiate, continue and stop anticoagulation should be made on an individual basis, guided by the available evidence, the patient’s circumstances and informed preferences.

Poster N°: 442

Type of presentation: Poster
Poster session: Second group 30 May Friday 13.30 to 31 May Saturday 13.30
Category: Other symptoms
Title: Prevalence of constipation and use of laxatives in patients with advanced disease cared for by Palliative Care teams
Authors:
Antonio Noguera Hospitalización Cuidados Paliativos Hospital Centro de Cuidados Laguna SPAIN
**Poster N°: 443**

**Type of presentation:** Poster  
**Poster session:** Second group 30 May Friday 13.30 to 31 May Saturday 13.30  
**Category:** Other symptoms  
**Title:** Use of antidepressants for treatment of depression in physically ill  
**Authors:**  
Sanja Dopa Administration SAPC BOSNIA & HERZEGOVIN  
Safija Kalajlic University Clinical Centre Tuzla Tuzla BOSNIA & HERZEGOVIN  
Samir Husic University Clinical Centre Tuzla Tuzla BOSNIA & HERZEGOVIN  

**Background:** Constipation is a common symptom in palliative care, and yet there is little research on its prevalence. Neither has been established a standard treatment, and to what extent new drugs have been incorporated.  
**Methods:** A cross-sectional descriptive study was proposed to collect data on constipation and its management in palliative care units of Navarra, La Rioja, Extremadura, Lérida and Vitoria (19 teams). The following variables, among others, were analyzed: documental background about fecal impaction, pace and consistency of dispositions and subjective perception of the patient, possible causes, consumption of opioids and prescribed treatment.  
**Results:** We are presenting herein descriptive statistics of a group of 154 patients, average age 71 years, most with cancer diagnosis and Karnofsky less than or equal to 60 and most of them (60%) over one month of palliative care at the time of the study; they were diagnosed constipation 58%; history of fecal impaction 25%. The most common probable cause is pharmacological (64% following treatment with opioids). With regard to the treatment the disparity of approaches found is to be stressed. 102/154 (66%) had treatment for constipation. 11/102 (11%) used only rectal treatment with enemas or suppositories, 90/102 (88%) used laxatives (77/90 (85%) single treatment, 12/90 (13%) combining two laxatives, 1/90 (1%) combining three laxatives). Of the total using oral laxatives, 61% used lactulose, 20% magnesium, 14% sennosides, 12% polyethylene glycol, others laxatives 9%. Only 10/90 (11%) patients combined osmotic laxatives with sennosides.  
**Conclusions:** Among patients treated by palliative care, constipation remains being a high prevalence symptom. Many patients could be on inadequate treatment.

**Poster N°: 445**

**Type of presentation:** Poster  
**Poster session:** Second group 30 May Friday 13.30 to 31 May Saturday 13.30  
**Category:** Other symptoms  
**Title:** Use of mouth care solutions in geriatric wards  
**Authors:**  
Sophie Pautex Rehabilitation and Geriatrics Service of Palliative Medicine SWITZERLAND  
Marie Premont Dpt Rehabilitation and Geriatrics. University Hospital Geneva Collonge-Bellerive SWITZERLAND  
Elisabeth Cabotte Dpt Rehabilitation and Geriatrics. University Hospital Geneva Collonge-Bellerive SWITZERLAND  
Gilbert Zuidan Dpt Rehabilitation and Geriatrics. University Hospital Geneva Collonge-Bellerive SWITZERLAND  
Laure Kaestli Pharmacy, University Hospital Geneva Geneva SWITZERLAND  

**Background:** Oral integrity plays a crucial role in communication and social interactions. Good oral hygiene should include daily assessment of symptoms and examination of the oral cavity and mouth wash with a bicarbonates solution. In practice, hexetidinum 0.1% disinfectant solution is sometimes used for the same purpose. Objective of the study is to measure the impact of guidelines and added formal education program to improve mouth care in geriatric patients.  
**Methods:** Assessment scale was provided and the properties/indications of various mouth care solutions were made available in each ward of the Department. Three of the wards received a two hours formal education program. The consumption of hexetidinum 0.1% and of bicarbonates aromatised solution was measured 3 months before and 3 months after provision of the guidelines.  
**Results:** Consumption of hexetidinum 0.1% 200ml solution was 208 units 3 months before and 140 units 3 months after. Consumption of bicarbonates aromatised 100ml solution was, 491 units 3 months before and 464 units 3 three months after. In the 3 wards that were educated, consumption of hexetidinum 0.1% 200ml solution was 21 units 3 months before and 12 units 3 months after. Consumption of bicarbonates aromatised 100ml solution was 66 units 3 months before and 59 units 3 months after.  
**Conclusions:** A formal education program targeting 3 wards had a better impact than the general provision of guidelines to decrease the inadequate use of Hexetidinum 0.1%. On the other hand, a corresponding significant increase of the use of bicarbonates aromatised solution could not be demonstrated. Education program must therefore be repeated on a routine basis.
Irene Higginson King's College London UNITED KINGDOM
K Valraji King's College London UNITED KINGDOM

representing the EPCRC

Background: The European Palliative Care Research Collaboration (EPCRC) is currently developing guidelines for treatment of depression in this population. A systematic review of treatment of depression in palliative care in 2002 found only three randomized controlled trials (RCTs) assessing pharmacological treatments, and the authors highlighted a need for a larger body of evidence. A systematic review looking at treatment of depression in physically ill populations may be used to inform treatment of depression in the population of interest and aid the development of the guidelines in conjunction with a planned systematic review looking at non-pharmacological treatments for depression in physically ill populations.

Methods: The systematic review protocol has been submitted to and accepted by the Cochrane Collaboration. The authors are part of the Cochrane, ‘Depression, Anxiety and Neurosis’ review group. The study will use standardized Cochrane review methodology. Cochrane, using extensive database searches and hand searches, has identified 132 papers. Of those, the authors have identified 55 papers, which are eligible for data extraction. Two of the authors have independently scrutinized all of the papers prior to inclusion, and any not agreed upon have been assessed by a third. Continuous variables will be analyzed to show standard mean differences. Binary outcomes will be analyzed using Peto odds ratios. Tests for heterogeneity will be performed, and when present will be investigated. Results will be stratified by disease type. Results: Data are currently being extracted from eligible papers by the two authors. The study is being funded by the EPCRC. Funding for the post of Clinical Research Worker (A. Price) is being provided by St Christopher’s Hospice, Sydenham, London, UK.

Conclusions: See above.

Poster N°: 448

Type of presentation: Poster
Poster session: Second group 30 May Friday 13.30 to 31 May Saturday 13.30
Category: Other symptoms
Title: Managing fungating wounds evidence based at work place
Authors:
Stella Rithara Mwari Palliative Care/ Day Care Nairobi Hospice KENYA
Stella Rithara Mwari Nairobi Hospice Nairobi KENYA

Background: The term ‘Fungating’ means a malignant process of both ulcerating and proliferative growth, which arises when malignant tumor cells infiltrate and erode the barrier properties of the skin. [Kalinski C al et al 2005] Poor wound healing impact significantly on quality of life, hence causing further symptoms such as pain, bleeding, depression, infection and unpleasant smell. Methods: Six articles from the search between 2002–2006 were evaluated and implications for practice discussed. The articles showed a significant benefit in the cost effectiveness in the usage of metronidazole products. Results: Practice at work place, Dedridement of wound first, clean with metronidazole solution or warm saline dried then dressed with metronidazole powder using open or closed method depending on exudates. Septic wounds use of diluted hydrogen peroxide 1; 2 rinsed and dried, dressed with metronidazole powder and Systemic or oral metronidazole, analgesic plus antibiotic for 5–7 days. At hospice, Use Sugar paste, honey and butter in septic wounds and bedsores are becoming widely used, 45% patients appreciate use of sugar paste, and 55% prefer use of model drugs. Wounds below waist improves better on sugar paste and butter, 55% patients are isolated by the family members due to the unpleasant smell, 35% die due to the infection, 10% die due to severe bleeding and 75% goes into depression. Common sites, Breast--------40% Neck and head------35% Rectal/vulvae------15% Others--------10%. Conclusions: Managing Fungating wounds has been difficult and it is considerable challenge to nurses and requires a holistic approach that addresses physical, psychological and social aspects. Proper wound management improves patient’s quality of life, promotes comfort, confidence and prevents isolation. My practical experience has shown that metronidazole products do well on Fungating wounds and there is need for further research on availability of drugs and palliative care nursing.

Poster N°: 449

Type of presentation: Poster
Poster session: Second group 30 May Friday 13.30 to 31 May Saturday 13.30
Category: Other symptoms
Title: Insomnia in advanced cancer
Presenting author: Declan Walsh
Authors:
Dilara Seyidova-Khoshknnabi Hematology/Med.Oncology, Palliative Medicine Cleveland Clinic U. STATES
Ruth Lagman Cleveland Clinic Cleveland U. STATES
Declan Walsh Cleveland Clinic Cleveland U. STATES
Jordanka Kirkova Cleveland Clinic Cleveland U. STATES
Nahabi Bennani-Baiti Cleveland Clinic Cleveland U. STATES
Mellar Davis Cleveland Clinic Cleveland U. STATES
Wael Lasheen Cleveland Clinic Cleveland U. STATES
Susan LeGrand Cleveland Clinic Cleveland U. STATES

Background: The purpose of this study was to evaluate the prevalence of insomnia in consecutive patients initially seen by a palliative medicine service, severity by categorical scale and interference within severity insomnia index (ISI); describe the clinical characteristics, precipitating, and predisposing factors, and explore the relationship between sleep disturbances, pain, depression, and fatigue. Methods: All patients with advanced cancer referred to palliative medicine were screened for insomnia. All eligible participants were verbally informed of the study and asked to participate. Patients were asked a screening question: Do you have problems: 1) getting to sleep, 2) staying asleep or 3) waking up early? Eligible patients had insomnia by one of the selection criteria. The insomnia severity index (ISI), family history of insomnia and mood/anxiety disorders, sleep habits, and depression, fatigue, and pain were assessed and graded by a categorical scale. Statistical analysis was performed using Student’s t-test, Pearson correlation, univariate and multivariate regression analysis. Results: 475 patients were screened, 52 were eligible. The mean age was 61 years, 28 were females. Prevalence was 29%. 17% had severe (score 22–28), 50%– moderate (score 15–21) and 22% mild (score 8–14) insomnia by ISI. All had fatigue (52/52). Depression occurred in 26/52, pain in 45/52. By univariate analysis insomnia severity strongly correlated with fatigue (P = 0.0001), depression (P = 0.01) and pain (P < 0.05). Severity in multivariate regression analysis, only fatigue severity correlated with insomnia severity (P = 0.0004). Precipitating (current medications and treatment) and predisposing factors (family history of insomnia and mood/anxiety disorders) were not associated with insomnia severity. Conclusions: Insomnia in advanced cancer correlated with fatigue, depression and pain. Severity correlated with the severity of fatigue. Prevalence occurred in almost 1/3 and 2/3 of patients who had severe to moderate insomnia.

Poster N°: 450

Type of presentation: Poster
Poster session: Second group 30 May Friday 13.30 to 31 May Saturday 13.30
Category: Other symptoms
Title: Nutritional status in cancer patients compared to other elderly in home care – The Aged in HHome Care Project (AdHOC) at 11 sites in Europe
Authors:
Susan LeGrand Cleveland Clinic Cleveland U. STATES
Wael Lasheen Cleveland Clinic Cleveland U. STATES
Ruth Lagman Cleveland Clinic Cleveland U. STATES
Dilara Seyidova-Khoshknnabi Hematology/Med.Oncology, Palliative Medicine Cleveland Clinic U. STATES
Jordanka Kirkova Cleveland Clinic Cleveland U. STATES
Nahabi Bennani-Baiti Cleveland Clinic Cleveland U. STATES
Mellar Davis Cleveland Clinic Cleveland U. STATES
Wael Lasheen Cleveland Clinic Cleveland U. STATES
Susan LeGrand Cleveland Clinic Cleveland U. STATES

Background: To describe the nutritional status and its associations in cancer patients compared to other home care users. Descriptions of symptoms...
and issues could lead to better management of problems related to nutrition. **Methods:** A comparative cross-sectional assessment study at 11 sites in Europe. Random samples of home care users, aged 65 years and older from urban areas, were included. **Measurement:** The Resident Assessment Instrument for Home Care, version 2.0. Epidemiological and medical characteristics of clients and service utilisation were recorded in a standardized, comparative manner. We assessed unintended weight loss; nutritional, oral, and gastrointestinal status. **Results:** The final sample consisted of 4,010 persons; 321 (8%) had a cancer diagnosis. Descriptive analyses of baseline socio-demographic, functional and clinical parameters comparing cancer and non-cancer patients revealed small variations between these two groups. The cancer patients were on average 80.4±7.3 years, two years younger than the non-cancer group. A binary logistic regression model explained differences in the use of ostomy, self-reported bad health, palliative care, loss of appetite and better cognitive functioning for the cancer versus non-cancer patients. **Conclusions:** Older patients with different types of cancer suffer more frequently from problems associated with nutrition than non-cancer patients. A comprehensive assessment would help identify early symptoms. This could lead to a better management of food and fluid supply based on basic ethical principles. Key words: Cancer, nutrition problems, artificial feeding, ethical implications, cross-sectional study, cross-national comparisons, aged, home-care population.

**Poster N°: 451**

**Type of presentation:** Poster  
**Poster session:** Second group 30 May Friday 13.30 to 31 May Saturday 13.30  
**Category:** Other symptoms  
**Title:** Venous thromboembolism disease in palliative care patients with advanced cancer: added risk factors, primary/secondary prophylaxis used and complications in normal clinical practice  
**Presenting author:** Gema Pelayo  
**Authors:**  
María José Soto-Cárdenas Palliative Care Unit (Internal Medicine) Hospital Universitario Puerta del Mar SPAIN  
Montserrat Montes de Oca-Arjona Hospital Universitario Puerta del Mar CÁDIZ SPAIN  
Eduardo Segura Hospital Universitario Puerta del Mar CÁDIZ SPAIN  
Amparo Mogollo-Galván Hospital Universitario Puerta del Mar CÁDIZ SPAIN  
Antonio José Chover-Gonzalez Hospital Universitario Puerta del Mar CÁDIZ SPAIN  

**Background:** Venous thromboembolism (VTE) causes significant problems in palliative care (PC) patients and it can difficult their symptomatic control. We analyzed i) the risk factor added ii) primary and secondary prophylaxis used and iii) occurred complications. **Methods:** Palliative Inpatients with advanced cancer and VTE, were reviewed between 2003–2006. Patients information datas were obtained from clinical dossier from hospital and ambulatory Palliative Care Sections. We analyzed the principal risk factors of VTE (immobilization, recent surgery and previous VTE), prophylaxis with low-molecular weight heparine (LMWH) and complications (i.e. minor or major bleeding, recurrence and death). **Results:** 71 palliative inpatients with advanced cancer were VTE diagnosed, around 10% of total patients in the Palliative Care Unit. Patients with metastases were 60,6% and 88,7% were from ambulatory origin. The presence of risk factors were: immobilizations in 28 patients (39,4%), recent surgery in 5(7%) and previous VTE in 23(32,5%). Primary prophylaxis was used in 4 patients with immobilization (14,3%), no patient with recent surgery and 10 patients with previous VTE received secondary prophylaxis. After diagnosis, all patients received treatment with LMWH in therapeutic dosage. Mean survival were 64%, 20% and 15% at 1,3 and 6 months periods respectively. The complications observed were 6 recurrences (8,5%),11 related deaths VTE (15,5%) and bleeding events were observed in 8 cases (11,3%),4 of which suffered major bleeding (5,6%) and 3 of them died (4,2%). **Conclusions:** VTE is an important complication in PC patients with advanced cancer that conditions the symptomatic control and usually hospitalization is required. The presence of others risk factor, immobilization and previous VTE, is common. In clinical practise LMWH prophylaxis is low in this population. The application of prophylactic measures could avoid this complication in an important group of these patients. The anticoagulation risk-benefits needs counterbalance.

**Poster N°: 452**

**Type of presentation:** Poster  
**Poster session:** Second group 30 May Friday 13.30 to 31 May Saturday 13.30  
**Category:** Other symptoms  
**Title:** Longitudinal study into the evolution of distress over time: patterns of distress from referral to palliative care services to death  
**Authors:**  
Katherine Thompson Palliative Medicine South East Scotland Palliative Medicine Rotation UNITED KINGDOM  
Marie T Fallon University Of Edinburgh Edinburgh UNITED KINGDOM  
Gordon D Murray University Of Edinburgh Medical School Edinburgh UNITED KINGDOM  

**Background:** The global experience of distress reflects the dynamic interactions between physical, psychological, social and spiritual factors. **Aims:** To establish over time the individual patterns of physical, psychosocial, spiritual and overall, global distress at the end of life. **Methods:** A prospective longitudinal study of 100 advanced cancer patients newly referred to a hospice community palliative care service in Central Scotland. Patients were assessed monthly until death, or for 6 months maximum. Outcome measures were: The NCCN Distress Thermometer (DT), Memorial Symptom Assessment Scale (MSAS), Edinburgh Depression Scale (EDS), FACIT-Sp-12 and clinical measures. **Results:** Profile and box plots showed that physical (MSAS) and psychological (EDS) distress levels fluctuated over the first months before stabilising to a lower, chronic level with intermittent exacerbations. Spiritual distress (FACIT) initially increased over the first months before stabilising at a lower, chronic level with intermittent exacerbations. Global distress levels (DT) were extremely variable, fluctuating constantly during the final months of life, yet the DT correlated significantly with each of the MSAS, EDS and FACIT (p<0.001) for each. Global distress levels did not change immediately prior to death: Median DT 5 at both penultimate and final assessments, mean DT 4.0 and 4.2 respectively. **Conclusions:** Physical, psychosocial and spiritual distress levels fluctuate in the initial months after referral to palliative care services. Levels then stabilise to a chronic, individually determined level, with intermittent exacerbations. However, overall, global distress levels remain constantly variable during the final months of life. Our findings also indicate that the global distress experience, as detected by the DT, reflects changes in any one of the physical, psychosocial or spiritual components, and cannot be predicted at the end of life. There does not appear to be a sudden change in distress levels immediately prior to death.

**Poster N°: 453**

**Type of presentation:** Poster  
**Poster session:** Second group 30 May Friday 13.30 to 31 May Saturday 13.30  
**Category:** Other symptoms  
**Title:** Malignant bowel obstruction in palliative care: descriptive study  
**Authors:**  
Albert Tusa Palliative Care Unit, 5-2 Institut Català d’Oncologia SPAIN  
Jose Espinosa Institut Català d’Oncologia Barcelona SPAIN  
Núria Codorníu Institut Català d’Oncologia Barcelona SPAIN  
Cristina Garzón Institut Català d’OncologiaBarcelona SPAIN  

**Background:** Intestinal obstruction (IO) is a common complication in advanced and terminal cancer. There are a lot of studies about surgical
series of cases or drug studies, but we have not data about this complication in end-stage cancer. **Methods:** Descriptive and retrospective study based on clinical reports and specific database of a Palliative Care Hospital Support Team (PCHST), exploring prevalence, oncological diagnosis, resolution index and life expectancy. Objective: Determine clinical characteristics of IO in advanced and terminal cancer in Palliative Care. **Results:** During a period of 22 months (Jan 2006–Oct 2007) PCHST attended 885 patients. IO was diagnosed in 92 patients (prevalence 10.4%). Mean age 63 years, 35 % men and 65 % women. All patients presented advanced cancer (digestive 53.9%, gynaecological 30.5%, urological 5.1%, unknown origin 5.1% and lung 3.4%). Clinical situation was described as high complexity in 88%. Mean of Karnofsky score (KPS) 24 h previously to IO diagnosis was 55%. Complete or partial resolution of IO was observed in 26.8% of cases. Mortality during hospitalisation was 73.2%. Mean of KPS of patients who presented partial or complete resolution at moment of hospital discharge was 50%. Mean of pain severity measured by means VAS was 5.3 in diagnosis and 2.4 after 3 days of palliative treatment (p<0.01). Pap Score at IO diagnosis was 7.5% group A, 52.5% B and 40% C. Life expectancy since IO diagnosis was 70% first week, 42% first month and 26% >3 months. **Conclusions:** IO is a common complication in acute palliative care (prevalence 10%). The majority of patients present digestive and gynaecological advanced cancer (84%). IO provokes a high mortality during hospitalisation (73%). There is a low index of partial or complete resolution (27%). Majority of patients died in first four weeks since diagnosis (60%). Only 26% of patients have a life expectancy upper to 3 months, most of them presented partial or complete resolution of IO.

**Poster N°: 454**

**Type of presentation:** Poster  
**Poster session:** Second group 30 May Friday 13.30 to 31 May Saturday 13.30  
**Category:** Other symptoms  
**Title:** What is the knowledge, how are attitudes and acting of nurses when caring for palliative patients with depressive symptoms?  
**Authors:**  
Bart Van den Eynden Centre for General Practice, Interdisciplinary Care University of Antwerp BELGIUM  
Suzy Van Ende University of Antwerp Antwerp BELGIUM  
Monique Elseviers University of Antwerp Antwerp BELGIUM  
Martine De Vlieger Palliatieve Hulpverlening Antwerpen Antwerp BELGIUM

**Background:** Literature proves that depression in palliative patients is frequently missed and underdiagnosed. Nevertheless, efficient diagnosis and treatment of depression are essential to be able to offer quality of life and comfort during the last phase of life. Nurses, being the care givers who are nearest to the patient, should be able to recognize and accurately identify depressive symptoms. **Methods:** The aim of this project was to study nurses’ knowledge, skills and attitude related to palliative patients with depressive symptoms. A questionnaire based on the literature was put to 269 nurses working in the hospitals of 3 regions within Flanders (Limburg, Antwerp and Vlaams-Brabant). Researchers were looking for significant differences in knowledge, skills and attitudes and for correlations between these and some characteristics of the nurses. A level of significance of p < 0.05 was handled. **Results:** Knowledge scored between 2/8 and 8/8 (mean=6/8; SD=1.18/8). Knowledge concerning medication policy scored the lowest. Concerning the nurses’ attitude, 85% of the nurses considered working with depressed palliative patients as tough, leading to a negative correlation (r = −0.237, p<0.001) with feeling themselves comfortable while going on with these patients. 32% of the nurses considered the psychological problem and 54% the somatic pain problem as the most important for a careful follow up. Nurses with a specific post-graduate education in palliative care demonstrated a more positive attitude and were acting more positively. 56% expressed their need for a specific education about the care for depressed palliative patients. **Conclusions:** From these results we conclude that a post-graduate education in palliative care is a surplus value for nurses working with depressed palliative patients. Our results furthermore suggest that completing this education with information about drug policy and diagnosis using a measure tool would further increase the quality of care of a palliative patient with depressive symptoms.

**Poster N°: 455**

**Type of presentation:** Poster  
**Poster session:** Second group 30 May Friday 13.30 to 31 May Saturday 13.30  
**Category:** Other symptoms  
**Title:** “Changes in treatment of nausea and vomiting in patients with cancer dying at home after consultation with a GP advisor”  
**Authors:**  
Florien van Heest Palliative Care IKN Groningen NETHERLANDS  
Ineke van der Ven Department of General Practice Groningen NETHERLANDS  
Betty Meyboom-de Jong Department of General Practice Groningen NETHERLANDS  
Renee Otter IKN Groningen NETHERLANDS  
Ilora Finlay Cardiff University Cardiff UNITED KINGDOM

**Background:** General practitioners specialized in Palliative Medicine (GP-advisors) supported their colleagues through a telephonic advisory service organised by the Comprehensive Cancer Centre North Netherlands as part of the Centre for Development of Palliative Care. We were interested in the type of treatment used for nausea and vomiting before and after advice was given and differences between advisors during 2003 (last year of registration and evaluation). **Methods:** In this descriptive study, registration forms recording nausea and/or vomiting as the subject for advice were selected and analysed. Characteristics of patients with nausea and/or vomiting were compared with the recorded details of those patients without these symptoms. Details of the advice was categorised and analysed for each of four GP-advisors. **Results:** Of a total of 483 episodes of GPs seeking advice on patients, 122 (25%) recorded nausea and vomiting as the main problem. In patients with a shorter prognosis nausea and vomiting was more prevalent. Prior to advice being sought, 42% of patients had no anti-emetic and 48% had been prescribed a single anti-emetic. Following the consultation, one or more anti-emetics were advised for 93% of the patients; in 38% of calls a single anti-emetic was advised, in 42% of calls a combination of 2 anti-emetic drugs was advised, 11% had 3 anti-emetics advised and 3% had a combination of 4 different anti-emetics advised. There was marked variation in number of advices and content of advice between the different GP advisors, partly due to local circumstances. In the evaluation satisfaction with the consultations over nausea and vomiting were valued equally for the GP advisors. **Conclusions:** Consultation about management of nausea and vomiting by GP advisors by telephone to GPs caring for patients dying at home resulted in marked changes in management and a positive evaluation about the consultation. A quarter of the consultations were about nausea and vomiting.

**Poster N°: 456**

**Type of presentation:** Poster  
**Poster session:** Second group 30 May Friday 13.30 to 31 May Saturday 13.30  
**Category:** Other symptoms  
**Title:** Gastrointestinal symptoms under opioid therapy: a prospective comparison of oral sustained-release hydromorphone, transdermal fentanyl and transdermal buprenorphine  
**Authors:**  
Stefan Wirz Anesthesiology, Intensive Care, Pain Medicine University of Bonn GERMANY

**Background:** Introduction The purpose of this trial was to evaluate the effect of long-term treatment with oral sustained-release hydromorphone (OH), transdermal fentanyl (TF), transdermal buprenorphine (TB) on
nausea, emesis and constipation. **Methods:** Patients and Methods 174 randomly selected outpatients with cancer pain being treated with one of the study medications were enrolled in a prospective, open-labeled, controlled trial. Mobility, pain and gastrointestinal symptoms were assessed directly and per selected item on the ECOG, EORTC and numerical rating scales (NRS). Data were analyzed by descriptive and confirmatory statistics (ANOVA, Chi2 test). **Results:** Results Demographic and medical data were comparable in all three treatment groups. Results of mobility scores were ambiguous. Morphine equivalent opioid doses differed (mg/d TF:183; TB:89; OH:143; p=0.001), possibly because of tolerance varying after long-term treatment. 21% of patients suffered from nausea and emesis. The mean NRS score for nausea (TF:1.3; TB:1.2; OH:1.5; p=0.6), the consumption of antiemetics (TF:42%; TB:33%; OH:36%; p=0.6) and laxatives (TF:53%; TB:66%; OH:61%; p=0.2) did not differ significantly, in contrast to the score for emesis (TF:16%; TB:13%; OH:33%; p=0.02). Only 15% of patients suffered from constipation. 59% took the prescribed laxatives. The incidence of stool free periods >72h was significantly higher with transdermal opioids (TF:22%; TB:21%; OH:2%; p=0.003)**. **Conclusions:** Conclusions Transdermal opioids showed no benefit over oral controlled-release hydromorphone with regard to gastrointestinal symptoms. Nevertheless, it remains unclear whether these effects are caused by the different opioid types, are related to the dose of opioid, to the mobility status, or are associated with the cancer. The calculation of conversion ratios for TF, TB, and OH should be investigated in controlled studies, as should the occurrence of opioid tolerance after long-term therapy.

**Poster N°: 457**

**Type of presentation:** Poster

**Poster session:** Second group 30 May Friday 13.30 to 31 May Saturday 13.30

**Category:** Other symptoms

**Title:** Less nausea, emesis, and constipation comparing hydromorphone and morphine? A prospective open-labeled investigation on cancer pain

**Authors:**
Stefan Würz 
Anaesthesiology, Intensive Care, Pain Medicine University of Bonn GERMANY

**Background:** The purpose of this trial was to evaluate the effect of long-term treatment with either oral sustained release hydromorphone (HM) or morphine (M) on nausea, emesis, and constipation. **Methods:** In a prospective, open-labeled, controlled trial, 100 outpatients with cancer pain and treatment with HM or M were enrolled. Mobility, pain, and gastrointestinal symptoms were assessed by the ECOG performance status, selected items of the EORTC questionnaire and Numerical Rating Scales (NRS). Data were analyzed using descriptive and confirmatory statistics. **Results:** Demographic and medical data were comparable in both treatment groups. Taking into account different conversion factors, opioid doses (M:94.4 mg/d vs. HM:137.6 [HM:M=1.5], p=0.05 resp. HM:206.4 [HM:M=1.75], p=0.0002) were higher under hydromorphone and NRS of pain (M:2.3 vs. HM:3.6, p=0.0002) lower under morphine. Nausea and emesis did not attenuate in 33 % of patients. NRS of nausea (M:2.5 vs. HM:1.5; p = 0.01), incidences of emesis (M:0.7/kg vs. HM:0.1/kg, p = 0.0001), the consumption of antiemetics (M:26 vs. HM:14, p = 0.01), and the number of constipated patients (M:8 vs. HM:2, p = 0.04) were higher in the morphine group. An extended use of substances for symptom control revealed constipating effects (M:31 vs. HM:13, p = 0.0003) and was associated with a higher incidence of constipation in the morphine group.

**Conclusions:** Symptom control in outpatients with cancer pain may be complicated by a symptom controlling medication. Particularly, antiemetics revealed potentially constipating effects. Despite lower opioid doses morphine provided a better pain control, but produced more side effects. Comparing hydromorphone with morphine it remains unclear if fewer incidences of constipation and nausea in the hydromorphone group were related to pharmacodynamic effects or to a less effective pain control with significantly higher NRS for pain. However, the conversion factor of oral hydromorphone and morphine needs to be questioned.

**Poster N°: 458**

**Type of presentation:** Poster

**Poster session:** Second group 30 May Friday 13.30 to 31 May Saturday 13.30

**Category:** Palliative care in elderly

**Title:** Pain and pain management in older people with cancer

**Presenting author:** Mike Bennett

**Authors:**
John Chatwin School of Healthcare University of Leeds UNITED KINGDOM
Jose Closs School of Healthcare Leeds UNITED KINGDOM
Mike Bennett University of Lancaster Lancaster UNITED KINGDOM

**Background:** Cancer is predominantly a disease of older people and is frequently painful. Research in older people with chronic non-cancer pain suggests that this group experiences less effective control of their pain than those in younger age groups. **Aim:** To determine whether community based older people with cancer pain experience differences in pain and pain management compared to younger people. **Methods:** Patients with cancer pain, aged over 75 years, or under 60 years, and newly referred to community based palliative care services in Leeds were invited for interview. Pain and pain related variables are assessed using five clinical measures: the Brief Pain Inventory (BPI); the Hospital Anxiety and Depression Scale (HADS); Self-complete Leeds Assessment of Neurophatic Symptoms and Signs (S-LANSS); EuroQol ‘thermometer’; and Karnofsky Performance Status. Barriers to pain management were assessed (Barriers questionnaire), and qualitative data relating to the use of healthcare resources, and difficulties in accessing services was also collected. **Results:** Analysis (n=90) shows that pain type and intensity, levels of satisfaction with cancer pain management, and levels of depression, are similar in younger and older patients. Younger patients experience higher levels of anxiety relating to their illness. Older patients display greater reticence about the use of strong pain killers, and are likely to have misconceptions about the need to take medication regularly to prevent pain re-occurring. **Conclusions:** Clearer information provision for older people about the use of strong painkillers is needed. This should address issues such as the need to take painkillers regularly, common fears about medication (i.e. addiction and side effects), and practical advice on the types of medication likely to be prescribed. (Funded by the Big Lottery Community Fund)

**Poster N°: 459**

**Type of presentation:** Poster

**Poster session:** Second group 30 May Friday 13.30 to 31 May Saturday 13.30

**Category:** Palliative care in elderly

**Title:** Is acupuncture a useful adjunct to medical treatment for painful elderly with physical or mental impairment?

**Authors:**
Marie Coulliot Sante publique Hopital René Muret Bigottini (AP-HP) FRANCE
Philippe Ercolano GP Paris FRANCE
Veronique DAREES Hopital Charles Richet (AP-HP) Villiers le bel FRANCE
Mai Lau Hôpital AvicenneBobigny FRANCE
Gerard Delahaya GP Bourges FRANCE
Bruno Tenenbaum AP HP Paris FRANCE

**Background:** Chronic pain in an institutionalised older population is a frequent symptom, often under assessed. Unrelieved pain interferes with sleep, socialisation and the quality of life. The evidence for efficacy of acupuncture in the treatment of pain is well assessed. However little is known about acceptability and efficacy of acupuncture intervention on very old people who present physical or mental impairment. **Methods:** The aim of the study is to investigate the feasibility and efficacy of an acupuncture intervention on persistent musculoskeletal pain. The population are patients in a long-term geriatric hospital care ward. The mean age is over 85 and the prevalence of cognitive...
impairment more than 60%. The first 60 patients wanting to participate are enrolled. For the impaired patients, family or legal representing is solicited. The Regional Ethic Committee agreement was granted. The intervention consists in 8 acupuncture sessions. The primary outcome measure is the proportion of patients who complete the whole treatment. The evaluation is based on pre and post treatment variations regarding pain. As a high proportion of patients have cognitive impairment, the behavioural pain scale “dolor-plus” has been chosen after staffs training, although auto evaluation is used when possible. Evaluation takes place after 5 and 8 sessions and 2 and 4 weeks after the intervention. **Results:** At mid time intervention, out of 30 eligible patients, 23 patients or families agreed to participate. 20 patients were evaluated after 5 and 14 after 8 sessions. Two patients wanted to stop because of “fatigue” and the others were hospitalised in acute hospital for infection, renal failure or fall. After 5 sessions, the mean doloplus score has decreased from 7,4 + 3,6 to 5,3 + 3,3 (p=0,005). The medical carers’ and families’ satisfaction is very high. **Conclusion:** Although this type of intervention seems quite useful to alleviate pain and anxiety, the main issue is the frail situation of these old patients.

**Poster N°: 460**

**Type of presentation:** Poster

**Poster session:** Second group 30 May Friday 13.30 to 31 May Saturday 13.30

**Category:** Palliative care in elderly

**Title:** Mind your language; the complexity of interviewing older people at end of life

**Presenting author:** Irene Higginson

**Authors:**

Sue Hall Palliative Care, Policy and Rehabilitation King’s College UNITED KINGDOM
Agis Tsouros WHO Europe Copenhagen DENMARK
Anna Koliakou King’s College London London UNITED KINGDOM
Irene J Higginson King’s College London London UNITED KINGDOM
Massimo Costantini National Cancer Institute Genoa ITALY

**Aim:** This project aims to improve end of life care for older people by publishing a new WHO guide presenting examples of good and promising practice around Europe, along with feasible recommendations for care, research and education. **Methods:** Examples of better practice were obtained using two methods: a literature review and a call for examples. For the literature review, the search was run on 9 electronic databases. This was supplemented by hand searching reference lists of all relevant examples and contacting known investigators. Two reviewers independently extracted data from each example and any disagreements not resolved by discussion were resolved by a third reviewer. Thirteen international and national organisations participated in the call for examples. **Results:** A preliminary review of palliative care interventions in care homes has produced 16 potential examples of better practice. Although our main focus was on care home interventions, we found examples of better palliative care practice for older people in other settings. Diverse practices were identified, such as educational and training programs, care pathways, quality improvement interventions, multidisciplinary palliative care teams, support for friends and carers and regional initiatives. The results of our current review have informed the development of other systematic reviews. **Conclusions:** A wide range of examples of better practice in palliative care for older people have been identified. The 16 examples we have to date are being rigorously evaluated to decide which will be included in the new WHO guide. **Funding:** This study is funded by the Murazza Lefebvre D’Ovidio Foundation.

**Poster N°: 461**

**Type of presentation:** Poster

**Poster session:** Second group 30 May Friday 13.30 to 31 May Saturday 13.30

**Category:** Palliative care in elderly

**Title:** A study of the provision of care for older people dying in acute and community hospitals and nursing homes in Ireland. Towards a quality of life focus

**Authors:**

Philip Larkin School of Nursing and Midwifery National University of Ireland IRELAND
Dymphna Casey School of Nursing & Midwifery, National University of Ireland Galway IRELAND
Aine ni Leime Centre for Social Gerontology, National University of Ireland Galway IRELAND
Eamon O’Shea Centre for Social Gerontology, National University of Ireland Galway IRELAND
Kathy Murphy School of Nursing & Midwifery, National University of Ireland Galway IRELAND
Katherine Froggatt International Observatory on End of Life Care, University of Lancaster Lancaster UNITED KINGDOM
Sheila Payne International Observatory on End of Life Care, University of Lancaster Lancaster UNITED KINGDOM

**Background:** This study provides a contemporaneous description of service provision and care for older people dying in acute and long-stay care settings in Ireland. **Aims:** • To undertake a survey of all known Irish acute hospitals and long-stay institutions in relation to contextual epidemiology, facilities, staffing levels, services and education needs. • To explore key stakeholder and direct care managers’ perspectives • To explore the experience of the older person in receipt of end-of-life care. **Methods:** An explanatory sequential mixed method design was employed. A questionnaire survey (N=675) was undertaken, followed by interviews with 35 direct care staff and 30 older patients. All tools were based on previous U.K. work (Froggatt and Payne, 2006; Payne et al., 2007; Hawker et al., 2006) Survey data (55% response rate) were entered into SPSS V14. A comparison of datasets was made using EpInfo Descriptive statistics, Pearson chi-squared test and the Mann-Whitney test were applied to establish any significant differences across facility types on important variables. A grounded theory approach was used to manage the qualitative data through a computerised data analysis package (Atlas Ti). **Results:** Acute and long-stay care settings contain many older people on the journey to death, even if not imminently. Survey respondents were willing to engage with best practice in end-of-life care, although the quality of facilities and services was variable. Interviews identified four themes (1) relationships, (2) dying (3) meaning of loss and (4) organisation and ethos. Lack of education and training was a significant barrier to giving optimal care. **Conclusions:** Much work remains to be done to enhance services and facilities in these settings and requires new models of care, as proposed in this study, relative to older people’s dying experience, tailored to appropriate resource allocation.
 provision of care for older people dying in Acute and Community Hospitals and Nursing Homes in The Republic of Ireland. **Methods:** As part of a larger mixed method study, qualitative interviews were also undertaken with 30 elders within the last 6 months of life across a range of long-stay care settings, using an interview schedule adapted from previous work in the U.K. (Payne et al., 2007; Hawker et al., 2006). Topics included their reason for admission, their experiences of being cared for and their concerns for the present and future. Interviews were transcribed verbatim and thematically analysed using the ATLAS.TI programme. **Results:** Themes identified from elder interviews included (1) importance of relationships, (2) a sense of belonging, (3) personal accounts of dying and (4) the meaning of loss. Additionally, experiences of symptom management and being cared for at end-of-life were also discussed. Most patients accepted death as an inevitable consequence of old age and a belief in reunion with others after death was a sustaining factor. Even where evidence of rapid clinical deterioration was clear, patients discussed death largely in terms of others, rather than themselves. Patients retained a strong capacity for living even in the face of their physical frailty. Experiences of care were largely positive from the patient perspective, supported by the nature and intensity of mutually sustaining relationships between patients and direct care staff. **Conclusions:** Interviewing elders at end-of-life poses methodological and practical challenges including identifying suitable patients for interview and engaging with increasingly frail patients. Finding appropriate language to discuss death is also complex. However, the need to understand the palliative care service user perspective challenges researchers to find innovative ways of working with vulnerable clients.

**Poster N°: 463**

**Type of presentation:** Poster  
**Poster session:** Second group 30 May Friday 13.30 to 31 May Saturday 13.30  
**Category:** Palliative care in elderly  
**Title:** Palliative care in older patients: yesterday and today  
**Authors:**  
Sophie Pautex Rehabilitation and geriatrics Service of palliative medicine SWITZERLAND  
Elisabeth Cabotte Dpt Rehabilitation and Geriatrics. University Hospital Geneva Collonge-Bellerive SWITZERLAND  
Laurence Dériani Dpt Rehabilitation and Geriatrics. University Hospital Geneva Collonge-Bellerive SWITZERLAND  
Huguette Guisado Dpt Rehabilitation and Geriatrics. University Hospital Geneva Collonge-Bellerive SWITZERLAND  
Dominique Duclos Dpt Rehabilitation and Geriatrics. University Hospital Geneva Collonge-Bellerive SWITZERLAND  
Geneva Collonge-Bellerive SWITZERLAND  

**Background:** Introduction: A palliative care multidisciplinary consultation team was established in a 304-beds geriatric general hospital since 1999. During these last years, definition of palliative care has been extended to non oncological patients (WHO 2002). The objective is to measure the evolution of the palliative care consultation between 2001 and 2006. **Methods:** Review of the palliative care consultation team (PCCT) records of 2001 and 2006 (reason to involve PCCT; patient’s characteristics…). **Results:** Number of first consultations (F/M) (n%) were respectively in 2001 and 2006: 65 (36/29) and 100 (67/33). Mean age was 85.1±6.9 and 83.7±6.8. Main diagnosis (n%) were respectively cancer (40 (63) vs 31 (31)), cardio-cerebro vascular disease (15 (23) vs 18 (18)), hepatic or renal failure (1 (2) vs 9 (9)), pulmonary disease (3 (5) vs 14 (14)), neurological disease (0 vs 5 (5)) , dementia (6 (9) vs 10 (10)) and other (0 vs13 (13)). Respectively 32 (49%) and 58 (58%) patients had some cognitive impairment (MMSE<24) during consultation. Reasons to involve PCCT (n%) included pain management (36 (55) vs 41 (41)), other symptoms management (19 (29) vs 26 (26)), psychological difficulties (21 (32) vs 28 (28)), team support (6 (9) vs 28 (28)), ethical problems (12 (18) vs 43 (43)), social problems (transfer, home return) (6 (9) vs 29 (29)) and Proxy support (6 (9) vs 10 (10)) Number of patients that died in hospital were respectively 34 (52%) and 34 (34%). Numbers of days from admission to consultation were median 18 and 17. **Conclusions:** Conclusion: Patient’s characteristics and reasons to involve PCCT changed in five years. Palliative care for non oncological patients has been extended, in particular for patients with cardio and cerebro-vascular and pulmonary disease. PCCT is involved earlier in the disease course in particular to help for the organisation of home care and to discuss advance care planning.

**Poster N°: 464**

**Type of presentation:** Poster  
**Poster session:** Second group 30 May Friday 13.30 to 31 May Saturday 13.30  
**Category:** Palliative care in elderly  
**Title:** The use of interpreters: the experiences of older Chinese people with cancer in the UK  
**Authors:**  
Sheila Payne International Observatory on End of Life Care Lancaster University UNITED KINGDOM  
Man Chung University of Plymouth Plymouth UNITED KINGDOM  
Merryn Gart University of Sheffield Sheffield UNITED KINGDOM  
Jane Seymour University of Nottingham Nottingham UNITED KINGDOM  
Alice Chapman Lancaster University Lancaster UNITED KINGDOM  
Katherine Froggatt Lancaster University Lancaster UNITED KINGDOM  

**Background:** Minority ethnic groups appear to make less use of cancer and specialist palliative care services than anticipated and the reasons for this are unclear (NCHSPCS, 2001). This paper draws upon a wider study on ethnicity and cancer that explored the experiences of older Chinese people with cancer and their views about facing a life threatening disease. What experiences of British cancer care services are reported by non English speaking Chinese people with cancer? **Methods:** The research design was informed by a participatory model of qualitative research where the mode of research was negotiated between researchers and the Chinese community leaders. Semi-structured face to face interviews were conducted with 16 older Chinese people with a median age of 60 years recruited via the Chinese community groups from two northern cities in England **Results:** 1) The majority of the participants in this study could not speak English. 2) Language barriers had hindered adjustment to British life and access to cancer/health information and care. 3) Using family and friends as interpreters was associated with embarrassment and concerns about accuracy of the translation and privacy. 4) The provision of interpreters appears to be sporadic and they are provided where the demand is greatest. 5) There is no national policy on the standard of interpreters for the health care services **Conclusions:** While provision of interpreting services cannot overcome all the issues with communication barriers, it is clear that interpreters can act as a bridge between two cultures. There is a pressing need to improve the standards and understandings of the role of the interpreters. Training sessions are required to help interpreters, health professionals and patients work together in bridging communication barriers.

**Poster N°: 465**

**Type of presentation:** Poster  
**Poster session:** Second group 30 May Friday 13.30 to 31 May Saturday 13.30  
**Category:** Palliative care in elderly  
**Title:** Developing models of care for older people in dying in hospitals and nursing homes in Ireland  
**Authors:**  
Sheila Payne International Observatory on End of Life Care Lancaster University UNITED KINGDOM  
Kathleen Murphy National University of Ireland Galway IRELAND  
Eamon O’Shea National University of Ireland Galway IRELAND  
Katherine Froggatt Lancaster University Lancaster UNITED KINGDOM  
Philip Larkin National University of Ireland Galway IRELAND  

**Background:** As part of a larger research study exploring the experiences of British cancer care services are reported by non English speaking Chinese people with cancer? **Methods:** The research design was informed by a participatory model of qualitative research where the mode of research was negotiated between researchers and the Chinese community leaders. Semi-structured face to face interviews were conducted with 16 older Chinese people with a median age of 60 years recruited via the Chinese community groups from two northern cities in England **Results:** 1) The majority of the participants in this study could not speak English. 2) Language barriers had hindered adjustment to British life and access to cancer/health information and care. 3) Using family and friends as interpreters was associated with embarrassment and concerns about accuracy of the translation and privacy. 4) The provision of interpreters appears to be sporadic and they are provided where the demand is greatest. 5) There is no national policy on the standard of interpreters for the health care services **Conclusions:** While provision of interpreting services cannot overcome all the issues with communication barriers, it is clear that interpreters can act as a bridge between two cultures. There is a pressing need to improve the standards and understandings of the role of the interpreters. Training sessions are required to help interpreters, health professionals and patients work together in bridging communication barriers.
**Poster N°: 466**

Type of presentation: Poster

Poster session: Second group 30 May Friday 13.30 to 31 May Saturday 13.30

Category: Palliative care in elderly

Title: End-of-life care in alternative housing models for people with dementia. A qualitative study in community based services in Germany

Authors:

Sabine Plescherberger Palliative Care & Organisational Ethics, University of Klagenfurt, IFF Vienna, AUSTRIA
Elisabeth Reitinger University of Klagenfurt, IFF, Dep. of Palliative Care & Organisational Ethics Vienna AUSTRIA
Felix Schumann University of Klagenfurt, IFF , Dep. of Palliative Care & Organisational Ethics Vienna AUSTRIA

**Background:** Alternative housing models are supposed to be best practice to care for people with dementia in Germany, especially those which are community based. However, is this true until the very end of life? Though it is obviously part of the concept, it has not been sufficiently discussed yet, how the palliative care needs of theses people are to be met. The aim of the study was to explore how care of the dying is approached by the carers in these services and how palliative care contributes (10/06–07).

**Methods:** Beyond a literature analysis data were gathered through qualitative interviews (n=25) including a broad variety of perspectives, e.g. health care professionals or bereaved family members of residents in rural and urban areas of Germany. Qualitative content analysis aimed at revealing relevant configurations required for optimal end of life care.

**Conclusions:** This model has implications for end of life care delivery in many European countries.

**Poster N°: 467**

Type of presentation: Poster

Poster session: Second group 30 May Friday 13.30 to 31 May Saturday 13.30

Category: Palliative care in elderly

Title: Bridging the gap: Extending palliative care services to elderly people in two East African countries

Authors:

Richard Antony Powel African Palliative Care Association Kampala UGANDA
E Namissango African Palliative Care Association Kampala UGANDA
J Teera Sentoongo African Palliative Care Association Kampala UGANDA
BN Mogoi Consultant Researcher Nairobi KENYA
J Downing African Palliative Care Association Kampala UGANDA
P Conn Help the Aged London UNITED KINGDOM
FNY Mswangi-Powell African Palliative Care Association Kampala UGANDA

**Background:** In sub-Saharan Africa, with an overwhelming communicable and non-communicable disease burden, the palliative care needs of aged people have never been more urgent. However, services that target this group often lack the necessary skills to provide effective palliative care.

**Aims:** This qualitative study aimed to: (i) describe the current life experiences of and care services for, aged people and identify their unmet palliative care needs and; (ii) provide recommendations for the integration of palliative care into existing services for the aged.

**Method:** Using in-depth interviews and focus group discussions, data was collected in Kenya and Uganda from: managerial and front-line staff of, and patient- and carer-clients receiving support from, rural- and urban-based organisations for the aged; managerial and front-line staff of, and patient- and carer-clients receiving support from, palliative care service providers covering approximately the same catchment areas as the aged organisations; and national coordinators from the two national palliative care associations.

**Results:** The lives of many aged people are characterised by social isolation, despair, and poverty. Moreover, inadequate pain assessment and management are especially deficient in care services for the aged. Currently, integration between these two services is minimal, with referrals from aged to palliative care organisations primarily determined by disease-specific rather than age-related conditions. The primary suggested means for addressing this deficient synergy between both organisations was centred on palliative care training, and a more significant strategic working partnership ultimately based around the community.

**Conclusions:** Palliative care services can be integrated into those for the aged on the continent in a number of ways. The extent to which this integration is both clinically and cost effective requires further research. Source of funding: Help the Aged, London, United Kingdom.

**Poster N°: 468**

Type of presentation: Poster

Poster session: Second group 30 May Friday 13.30 to 31 May Saturday 13.30

Category: Psychology & communication

Title: Importance of body image changes in palliative care

Presenting author: Albert Tuca

Authors:

Nuria Codorniu Zamora Palliative Care Unit 5-2 Institut Català d’Oncologia SPAIN
Albert Tuca Institut Català d’Oncologia Barcelona SPAIN
Jorge Maté Institut Català d’Oncologia Barcelona SPAIN
Background: Cancer patient presents changes in physical aspect and corporal integrity due to oncological treatments and natural evolution of disease. Body image (BI) changes provoke frequently a high emotional impact which concerns to personal dignity. Despite the probability of this problem increases in advanced cancer patients, there are few references in palliative care (PC) research. We have designed a project, divided in three phases to explore this alteration in PC: Basic opinion of PC professionals; Prevalence of BI records in clinical practice; Deep interviews to patients, relatives and professionals about the value of BI alteration (qualitative methodology). We present preliminary results of first two phases.

Methods: A) Survey to PC professionals about their basic opinion. B) Cross-over study of prevalence of nursing records about BI in a hospital PC unit. Results: Study A: Survey to 88 professionals (53% doctors, 24% nurses, 9% social workers, 11% psychologists, 2% other). Mean age was 45. Women 58% and men 42%. There were 5 possible answers (total and quiet agreement, occasionally, quiet and total disagreement) to 4 questions. The first question was: Is BI important for yourself? 88% of professionals responded total and quiet agreement. The second was: Is BI of your patients important? 85% responded total and quiet agreement. The third was: Do you explore BI of your patients? 75% responded total and quiet agreement, 23% occasionally. The fourth was: Do you treat it? 82% responded total and quiet agreement, 16% occasionally. Study B: 60 patients. Mean age 58. Men 61% and women 39%. All patients presented advanced cancer. Changes in BI were recorded in 40% of patients. BI alteration was recorded only in 13% of cases. In none of these cases was it 45. Women 58% and men 42%. There were 5 possible answers (total and quiet agreement, occasionally, quiet and total disagreement) to 4 questions. The first question was: Is BI important for yourself? 88% of professionals responded total and quiet agreement. The second was: Is BI of your patients important? 85% responded total and quiet agreement. The third was: Do you explore BI of your patients? 75% responded total and quiet agreement, 23% occasionally. The fourth was: Do you treat it? 82% responded total and quiet agreement, 16% occasionally. Study B: 60 patients. Mean age 58. Men 61% and women 39%. All patients presented advanced cancer. Changes in BI were recorded in 40% of patients. BI alteration was recorded only in 13% of cases. In none of these cases was it.

Results: The preferences of both patients and caregivers for step-by-step and hence slow and limited information prevents terminal patients from reaching the level of information needed for informed end-of-life decision-making. Practice Implications: The preference of patients and caregivers to ‘dose’ the truth may entail some risks, such as a Catch 22 situation in which both patients and caregivers wait for a signal from each other before starting a dialogue about impending death.

Poster N°: 469

Type of presentation: Poster
Poster session: Second group 30 May Friday 13:30 to 31 May Saturday 13:30
Category: Psychology & communication
Title: Truth-telling at the end of life: a pilot study on the perspective of patients and professional caregivers

Background: Respect for patients’ autonomy and shared decision-making are seen as requisites for high-quality care. Therefore patients need to be optimally informed, even when they are terminally ill and confront medical decisions at the end of life. Several countries now have laws or regulations to guarantee that physicians give patients the information they need to make well-considered decisions. Increasingly, patients themselves are expected to decide when and how they die. This is most obvious when euthanasia is a legal option, as has been the case since 2002 in the Netherlands and Belgium. The aim of this pilot study was to describe the attitudes of both terminal patients and their professional caregivers towards truth-telling, and to identify their perceived barriers to full information exchange. Methods: In-depth interviews with 17 terminal patients selected through GPs and staff members of Flemish palliative care centres, and 3 focus groups with different professional caregivers. Analysis was based on grounded theory. Results: There was considerable variability in the preferences of patients regarding when and how they wanted to be informed of their diagnosis, prognosis, expected disease course and end-of-life decisions. Major ambivalence was observed regarding the degree to which patients wanted to hear ‘the whole truth’. Patients and caregivers agreed that truth-telling should be a ‘dosed and gradual’ process. Several barriers to more complete and timely truth-telling were identified.

Conclusions: The preferences of both patients and caregivers for step-by-step and hence slow and limited information prevents terminal patients from reaching the level of information needed for informed end-of-life decision-making. Practice Implications: The preference of patients and caregivers to ‘dose’ the truth may entail some risks, such as a Catch 22 situation in which both patients and caregivers wait for a signal from each other before starting a dialogue about impending death.

Poster N°: 470

Type of presentation: Poster
Poster session: Second group 30 May Friday 13:30 to 31 May Saturday 13:30
Category: Psychology & communication
Title: Factors predicting patients’ use of cancer support groups: a longitudinal study of psychosocial, demographic and clinical variables
Authors: Gunn Grande School of Nursing, Midwifery & Social Work University of Manchester UNITED KINGDOM Janine Arnott School of Nursing, Midwifery & Social Work, University of Manchester Manchester UNITED KINGDOM

Background: There is rigorous evidence that patients can benefit from cancer support groups. However, only a minority of cancer patients attend such groups, indicating that this may be an under-used resource. Cross-sectional research suggests that psychosocial variables, including patient perceptions of support groups, are more closely associated with support group use than demographic or clinical variables. Prospective research is required to fully identify the variables predicting cancer support group use and to assess whether support group uptake could and should be increased. Methods: Sample: Patients diagnosed with lung, colorectal or bladder cancer attending a specialist cancer hospital. The study is ongoing and aims to recruit 210 patients. Design: Prospective, longitudinal study with follow up at 2, 6 and 12 months. Baseline measures include demographic, clinical, psychosocial variables (Brief COPE, Illness Perceptions, social support) and Quality of Life (QoL), and perceptions of support groups, barriers to attendance and intention to join. Follow up measures include support group use and QoL. Results: Early baseline data analysis suggests that patients who have an active approach to coping with cancer view support groups positively and are more likely to want support with their cancer. Positive perceptions also appear to be associated with intention to join a group. The presentation will report further analysis of the relationship between baseline variables and the intended and actual use of support groups, and the relationship between disease severity and patients’ views and use of support groups.

Conclusions: An understanding of the factors predicting the use of support groups will tell us whether support groups should be offered to more patients, and if so, to whom, when, and in what format. For instance, if misperceptions about groups prevent uptake, we need to change how groups are presented to patients. If groups do not address patients’ current needs, a change is needed in the format of groups.

Poster N°: 471

Type of presentation: Poster
Poster session: Second group 30 May Friday 13:30 to 31 May Saturday 13:30
Category: Psychology & communication
Title: Multidimensional problems among advanced cancer patients in Cuba: awareness of diagnosis is associated with better patient status
Background: Cancer is a major cause of death in Cuba. Palliative care is an emerging discipline and in current practice patients are not usually informed of their diagnosis. It is widely believed that this knowledge would cause intolerable burden to patients and families. Very little research has been conducted in Cuba. Aim: To relate patient and family outcomes to patients’ knowledge of their condition and establish whether there was an association. Methods: Cross-sectional survey of cancer patients with a prognosis of six months or less, recruited at two hospitals and a community clinic in Havana. Participants completed the Argentinian Palliative Outcome Scale (POS), demographic data, and the researcher elicited patient knowledge of their condition and prognosis. Mann Whitney U tests were used to compare POS item scores by patient awareness. Results: Of the 94 patients who participated in the study, 43% (n=40) knew they had cancer and 10% (n=9) were believed to be aware that they were dying. The most burdensome problems recorded on the POS were wasted time on appointments (70% of patients scored 3 or 4), pain (42%), patient anxiety (38%) and family anxiety (38%). Those patients who were aware of their diagnosis (70% of patients scored 3 or 4), pain (42%), patient anxiety (38%) and family anxiety (38%). Those patients who were aware of their diagnosis had statistically significantly better scores with respect to symptoms (U=760, p=0.01), patient anxiety (U=800, p=0.03), receiving information (U=795, p=0.01), and receiving support from family and friends (U=737, p=0.01). Conclusions: This study is the first study to measure palliative patient needs in Cuba using a validated tool. An association has been demonstrated between patient knowledge and their quality of life in Cuba, a setting where disclosure is contrary to current clinical practice and goals in palliative care.

Poster N°: 472

Type of presentation: Poster
Poster session: Second group 30 May Friday 13.30 to 31 May Saturday 13.30
Category: Psychology & communication
Title: The development of a self help guide for cancer patients who have recently completed treatment
Authors:
Lorna Higgins Academic Palliative & Supportive Care Study Group University of Liverpool UNITED KINGDOM

Background: Psychological distress is common amongst cancer patients with estimates of the prevalence of depression as high as 49% and anxiety 75% (Macmillan 2006). Cancer has been identified as ‘one of several chronic illnesses that precipitates the need for and use of mental health services’ (Hewitt & Rowland 2002). Despite this evidence suggests that doctors and other healthcare professionals caring for cancer patients are poor at detecting psychological problems (Fallowfield et al 2001) or underestimate the level of depressive symptoms in depressed patients (Passik, et al 1998). Clinicians may also ‘assume that, given the circumstances, depression is simply to be expected among cancer patients and to do nothing about it’ (Sellick & Crooks 1999) resulting in many patients not being offered any form of treatment. Methods: The guide was developed by a Graduate Mental Health Worker in collaboration with a Macmillan Library Information Facilitator with substantial input from service user groups. It was designed based on evidence based psychological interventions, predominantly cognitive behavioural therapy, and is designed to be used following completion of treatment. Results: The completed guide was evaluated qualitatively by focus groups and amendments made accordingly. Feedback was largely very positive with many comments suggesting that it would be beneficial for patients. It has also been distributed online and at local and national meetings where again it has been received positively. Conclusions: As the guide is aimed at patients who have completed treatment it may also be beneficial within palliative care with long term palliative care patients. Future plans are to develop future guides aimed at other stages of the cancer journey, carers etc and to conduct randomised control trials into its effectiveness.

Poster N°: 473

Type of presentation: Poster
Poster session: Second group 30 May Friday 13.30 to 31 May Saturday 13.30
Category: Psychology & communication
Title: Pain and suffering in cancer patients at the end of their lives
Authors:
Mª Ángeles Jurado Martín medical deparment Fundación Cudeca SPAIN
Rosa Esteve Zarazaga Facultad de Psicología. Universidad de Málaga SPAIN
Rosario Rodríguez Avila Fundación Cudeca Málaga SPAIN
Oscar Villalba Merchán Fundación Cudeca Málaga SPAIN
Noelia Morgado Bermejo Fundación Cudeca Málaga SPAIN
Josefina Mateos Rodríguez Fundación Cudeca Málaga SPAIN
Pablo Carralero García Fundación Cudeca Málaga SPAIN
Jose Manuel Lapeira Cabello Fundación Cudeca Málaga SPAIN
Rafael Pezo Vila Fundación Cudeca Málaga SPAIN
Rosa Cazorla Gonzalez Fundación Cudeca Málaga SPAIN
Susan Hannan Fundación Cudeca Málaga SPAIN

Background: Although most societies associate pain with suffering, some studies show that not all pain causes suffering and not all suffering is provoked by pain. The cognitive evaluation of the person is marked by the subjective significance the patient gives as well as the emotional reactions arising from the evaluation. This meaning will depend mainly on the knowledge of the illness. Clarifying which is the connection between both concepts will be very useful to help the professional relieve suffering. Methods: From a sample of 89 oncological patients with advanced disease, their general condition, knowledge of their illness, level of the suffering and its cause, intensity of sadness, anxiety and pain were evaluated during interviews. This data was analyzed by LISREL 8.30. Results: The lower level of knowledge of the illness produced a higher level of anxiety and sadness. Anxiety increased pain which then increased sadness. Finally, the pain joined together with the general deterioration of the patient explained part of the patient’s suffering. Conclusions: The connection between the pain and suffering could be located in the emotional aspects attributed to pain. A suitable explanation to the patient about the causes of pain will contribute to reduce the anxiety associated with pain and so, a better control of the pain would be achieved.

Poster N°: 474

Type of presentation: Poster
Poster session: Second group 30 May Friday 13.30 to 31 May Saturday 13.30
Category: Psychology & communication
Title: The meanings of religion among Black Caribbean and White British patients with advanced cancer
Authors:
Jonathan Koffman Department of Palliative Care, Policy and Rehabilitation King's College London London UNITED KINGDOM
Polly Edmonds of Palliative Care, Policy and Rehabilitation, King's College London School London UNITED KINGDOM
Irene J Higginson Department of Palliative Care, Policy and Rehabilitation, King's College London London UNITED KINGDOM
Peter Speck Department of Palliative Care, Policy and Rehabilitation, King's College London London UNITED KINGDOM
Myfanwy Morgan Department of Public Health Sciences, King's College London London UNITED KINGDOM

Background: There is evidence that religion and spirituality affects psychosocial adjustment to cancer but little is known about this relationship...
among black and minority ethnic groups living in the UK. The aim of the study was to explore and compare how religion and spirituality influence the self-reported cancer experience among Black Caribbean and White British patients living in south London. Methods: Semi-structured interviews conducted with 26 Black Caribbean and 19 White British patients with advanced cancer recruited via palliative care teams and oncology clinics. Interview transcripts were analysed using a ‘framework’ approach. Results: Nearly all (25/26) Caribbean patients and just over half (11/19) White British cancer patients volunteered views on the place of religion or God in their life. Christianity was the only religion reported and where strength of belief appeared to be more pronounced among Black Caribbean patients. Three main themes that emerged from the interviews were (i) the ways in which religion and belief in God helped patients comprehend and make sense of their cancer; (ii) the practical and emotional support derived from church membership that helped patients live with the physical and psychological effects cancer and its progression; and (iii) the ways in which for Black Caribbean patients their experience of advanced cancer promoted religious identity and connection with God. Conclusions: Religion and belief in God were important for many patients, but less emphasis was placed on spirituality. We also observed that a single understanding of religion cannot be assumed for all patients since culture influenced its meaning and expression in patients’ lives. We therefore recommand that when health care professionals assess patients they facilitate opportunities for them to express information about their illness that may include religious and spiritual beliefs, and how these may serve to complement care provided.

Poster N°: 475

Type of presentation: Poster
Poster session: Second group 30 May Friday 13.30 to 31 May Saturday 13.30
Category: Psychology & communication
Title: Guidelines on the use of antidepressants in palliative care
Authors:
Jain Lawrie Palliative Care Leeds Teaching Hospitals NHS Trust UNITED KINGDOM
Annette Edwards Leeds Teaching Hospitals NHS Trust & Sue Ryder Care Wheatfields Hospice UNITED KINGDOM
Jason Ward The Mid Yorkshire Hospitals NHS Trust Dewsbury UNITED KINGDOM

Background: Clinical guidelines are an important component of clinical medical practice due to the expansion of evidence based medicine and concerns regarding clinical governance. Difficulties exist in the application of evidence based medicine to palliative care, including problems in measuring quality of care and in applying rigorous research methodology in this vulnerable patient group. Methods: A thorough review of the literature from 1966 was carried out. Evidence was gained from several patient groups – advanced malignant disease, comitant medical pathologies, and general population. Results: These guidelines represent a thorough review of the available evidence and, in the absence of large, randomised, double-blind, placebo-controlled studies in palliative care, are a guide to treatment of depression in this population. Conclusions: Citalopram has been chosen as a first line agent for management of depression due to strong evidence regarding its efficacy, as well as its favourable adverse effect profile, availability in liquid form and low propensity for interaction with other drugs. Mirtazapine has also been included as a first line choice, being a safe, effective antidepressant with a more favourable adverse effect profile, and useful in patients who are nauseated or when a sedative effect would not be detrimental. Reasonable evidence also exists that it may act more quickly than other preparations. Venlafaxine, another effective, well-tolerated preparation, has been included for depression not responsive to first or second line agents, but recent cautions and recommendations regarding its use should be noted. The importance of non-pharmacological interventions when managing depression, either independently or in conjunction with drug treatment cannot be emphasised more strongly. Depression is a disabling, multifactorial condition that requires a broad, multifaceted approach to management, and use of antidepressants is only one component of such management.

Poster N°: 476

Type of presentation: Poster
Poster session: Second group 30 May Friday 13.30 to 31 May Saturday 13.30
Category: Psychology & communication
Title: Quality of live among children with ALL
Authors:
Elena Mosc Department of Palliative Care Medical University of Wrocław POLAND
Jowita Twardak Medical University of Wrocław Wrocław POLAND
Alejca Tokarzyk Medical University of Wrocław Wrocław POLAND
Iwona Pirogowicz Medical University of Wrocław Wrocław POLAND
Mirosław Chybicki Medical University of Wrocław Wrocław POLAND

Background: The aim of the study was assessing quality of life and experiences of pain and anxiety among children and adolescents with Acute Lymphoblastic Leukemia (ALL). Methods: The study was conducted on 30 children and adolescents in age of 6 to 20, being under care in Clinic of Bone Marrow Transplantation, Children Hematology and Oncology of Medical University and their parents. Study population consisted of 15 boys and 15 girls. In order to fully assess quality of life following factors were measured: pain intensity – using own questionnaire, side effects of treatment – using Rotterdam Symptom Check List, physical abilities – with The Karnowsky Performance Index, the level of anxiety with State-Trait Anxiety Inventory for Children (STAI C-1, C-2), parental behaviors – with Parent-Child Relations Questionnaire, parental satisfaction – with Parental Satisfaction With Medical Care Questionnaire, and general quality of life – with own questionnaire. Results: 50% of responders described their quality of live as good and very good, 46% as average, and 4% as bad or very bad. Pain was experienced during the treatment by 80% subjects. Most often occurring side effects of ALL therapy were weariness and tiredness (90%), head and stomach pain, worrying (80%) and nervousness (77%). Dominating parental attitudes were loving attitude (42%) and protecting attitude. 27% were normally physically able and 20% were physically unable and requiring constant care. In medical care evaluation, highest rates got organization (90%) and communication (87%), slightly lower accommodation (75%). By average satisfaction with medical care was up to 80%. Level of anxiety was rated as average by 77% of subjects and low by the rest of responders (33%). The correlation between pain intensity, physical activity and quality of life, also found in other research, was observed. Conclusions: Pain reduction and increasing physical activity can increase quality of life.
Background: Background: and aim: Giving information about disease progression, therapy failure or end of curative treatment options are everyday work for oncologists. Nevertheless, these communication tasks are burdensome, and physicians report feeling inadequately prepared for them. Studies exploring the efficiency of educational communication programs have shown varying degrees of success, and the majority of practicing physicians have not gone through any formal communication training. Aim: To explore how physicians learn communication skills in their work place and whether the college is suited to handle stress related to the communication of sad and bad news among its members. Methods: Materials and methods: Three focus group interviews with 6–8 oncologists from three different teaching hospitals were undertaken and digitally recorded. Recordings were transcribed and common themes and concepts were identified. Analysis employed the constant comparison method of grounded theory in which the textual data were scrutinised for differences and similarities within themes.

Results: The oncologists emphasised the importance of working alongside colleagues in order to observe physician-patient communication and to receive feedback on own practice. Those who had attended formal educational programs in communication reported these to be of less importance in forming their practice than the co-working with peers in their own workplace. Formal and informal support from the college was seen as potentially fruitful, but was lacking as time constraint reduced the opportunity for such meetings. Conclusions: Oncologists find co-working with colleagues important in order to acquire communication skills. Due to time constraint and increasing workload meeting-places within the college are few. This development is worrying as such opportunities to meet with colleagues is an important factor in reducing emotional stress related to the communication of sad and bad news.

Poster N°: 478

Type of presentation: Poster
Poster session: Second group 30 May Friday 13.30 to 31 May Saturday 13.30
Category: Psychology & communication
Title: Consent documents for a palliative chemotherapy trial – what do the patients actually perceive?
Presenting author: Jon Håvard Loge
Authors:
Kari Sand Department of Cancer Research and Molecular Medicine, Norwegian University of Technology and Science, Norway
Jon Håvard Loge Norwegian University of Science and Technology, Trondheim, Norway
Bjørn Henning Grønberg Norwegian University of Science and Technology, Trondheim, Norway
Stein Kaasa Norwegian University of Science and Technology, Trondheim, Norway
Ola Berger Norwegian University of Science and Technology, Trondheim, Norway

Background: The informed consent documents for clinical trials contain the most important information, and to understand the main point of the consent document. Aim: To explore which content elements palliative patients find relevant for deciding whether to participate in a chemotherapy trial. Methods: Lung cancer patients eligible for a palliative chemotherapy trial (N = 22) in 2005/2006 were randomly assigned to receive either the original consent document approved for this specific trial or a shortened version written for the present study. The shortened version was based on a consent document written for a trial with a similar design (also for patients with lung cancer) approved by the ethics review board in 1994. After reading the consent document, the patients participated in interviews. The interviews were transcribed verbatim and analysed using content analysis. Results: No main differences between the two groups were found with respect to satisfaction with the consent document, recall of and preferences for information. Irrespective of receiving a long or a shortened consent document, the information about disease and treatment were of most interest for the patients, while information on “research formalities” was judged to be of lesser relevance. Conclusions: The findings suggest that the patients primarily interpret the consent documents as information about medical treatment per se. Both the verbal and written consent information should explain more explicit that the information deals with research and that the main function is to obtain the patients’ voluntary, informed consent. This study was financed by the Central Norway Regional Health Authority and the Norwegian University of Science and Technology.

Poster N°: 479

Type of presentation: Poster
Poster session: Second group 30 May Friday 13.30 to 31 May Saturday 13.30
Category: Psychology & communication
Title: Basic Attitudes of Professionals in Palliative Care
Authors:
Steffen Simon Internal Medicine Department of Palliative Care, King’s College, Germany
Gerlinde Geiss Department of Psychology, University of Oldenburg, Oldenburg, Germany
Christina Ramsenthaler Department of Psychology, University of Oldenburg, Oldenburg, Germany

Background: For all professionals in palliative care (pc) it is necessary to be self-aware about how to function professionally in the work place, and forms the basis for his actions and thoughts. Methods: Objective: We hypothesize that the basic attitude of professionals is one of the key issues in pc, beside others like professional expertise. The aim of this study is to answer the following questions: What does ‘basic attitude’ mean in pc? Is there a specific basic attitude in pc? Methods: Qualitative study by 10 semi-structured face-to-face interviews with well-known experts in pc (physicians, nurses, social workers, psychologist, chaplain). This pilot study is a part of a research program about basic attitudes followed by a survey ongoing with 400 professionals in pc. Results: Basic attitude in pc can be described best with the following three topics: 1) characteristics of basic attitude; 2) situations and places where basic attitude can be experienced; and 3) competence in care. Authenticity is the most important characteristic of professionals, along with honesty and mindfulness (1). All interviewees agreed with the notion that the relationship to the patient is mainly the ‘location’ where basic attitude primarily shows itself (2). Perception and listening are indispensable skills in this working field (3). Nine out of ten interviewees denied the existence of a specific basic attitude in pc. On the contrary, they emphasized the universality of the basic attitude in the care of ill people. All experts stressed the importance and relevance of teaching the issue of basic attitude in pc education. Conclusions: In the field of palliative care, basic attitude consists of authenticity, manifests itself in relationships, and requires a high degree of perceptiveness.

Poster N°: 480

Type of presentation: Poster
Poster session: Second group 30 May Friday 13.30 to 31 May Saturday 13.30
Category: Psychology & communication
Title: How patients receiving palliative antineoplastic treatment understand goal of their therapy?
Authors:
Ondrej Slama Supportive and Palliative Oncology Masaryk Memorial Cancer Institute, Czech Republic
Background: The results of several surveys from different countries indicate significant discrepancy in the expectations and understanding of the goals of therapy between patients and their physicians. Methods: Questionnaire survey among cancer patients receiving chemotherapy judged by their physician as non curative (= palliative). The responses in questionnaire were formulated following way: Curative therapy: “The aim of my therapy is cure, i.e. complete removal of all tumor cells leading to complete and longlasting state of full health” Palliative therapy: “The aim of my therapy is not the cure, but a timely shrinking of the tumor, slowing of it’s growth, prolongation of life (survival) and reduction of some tumor related symptoms.” Not enough information: “I don’t know, my oncologist didn’t tell me such details about my illness and its therapy Study Population: 150 randomly chosen patients receiving palliative chemotherapy in a tertiary teaching oncology center. 140 patients agreed to participate, the response rate was 93%. The most represented cancer types were breast, colorectal and ovarian cancer with 73 (52%), 28 (20%) and 17 (12%) patients respectively. The numbers of patients receiving the 1st line, 2nd line, 3rd line and 4th line of palliative antineoplastic therapy were 58 (41%), 52 (37%), 22 (16%) and 8 (5%) respectively. Results: 43 (31%) patients receiving palliative chemotherapy responded the goal of their therapy was the cure (for definitions see above), 13 (9%) didn’t know and 84 (60%) were aware of palliative intent of their therapy. The expectation of cure was in 51 (36%), 32 (23%) and 47 (33%) patients for the 1st line, 2nd line and 3rd line and further lines of palliative therapy respectively. Conclusions: Nearly one third of patients receiving palliative antineoplastic therapy does expect the cure as the goal of their therapy. This proportion doesn’t decrease in patients pre-treated with several lines of palliative chemotherapy.

Poster N°: 481

Type of presentation: Poster & poster discussion session
Poster session: Second group 30 May Friday 13.30 to 31 May Saturday 13.30
Category: Psychology & communication
Title: How does the distress of nurses and physicians in palliative care influence their perception of patient’s symptoms?
Presenting author: Hellmut Samonigg
Authors: Silke Zlokikovits Clinical Oncology Medical University Graz AUSTRIA
Hellmut Samonigg Medical University Graz Graz AUSTRIA
Elisabeth Andritsch Medical University Graz Graz AUSTRIA
Verena Ladinek Medical University Graz Graz AUSTRIA

Background: Investigations about patients’ symptom ratings in different raters, especially influencing factors on agreement, can assure a better understanding of the complex process of perception and appraisal in palliative care. Aim: To identify if variables like the distress of nurses and physicians are associated with the accuracy of their symptom ratings. Methods: 50 terminally-ill patients admitted to a palliative care unit participated. A modified Symptom List in Palliative Care (MIDOS) drafted by a Working Group on the Core Documentation for Palliative Care Units in Germany and the psychological subscale of the Memorial Symptom Assessment Scale (MSAS-PSYCH) from Portenoy were used for the patients themselves (n=50), their treating physicians (n=49) and nurses (n=50) during their stay. The staff raters assessed their own distress score with the Distress-Thermometer (Holland), a one item self-report measure. Results: Descriptive data with cut-off 4 showed 45% physicians (mean 4.08, SD 2.59) and 56% nurses (mean 4.42, SD 3.05) with higher distress. On sum-score level (analyses of variance), nurses significantly underestimated pain and physical-functional symptoms, whereas physicians significantly overestimated patients’ psychological symptoms. With a deviation score staff raters were divided into congruent and non-congruent raters for the three sum-scores (pain; physical-functional; psychological). For nurses, in all three sum-scores a higher distress in the non-congruent group than in the congruent group were found; with a significant result for pain and a statistical trend for the psychological score. Physicians show similar results for the physical-functional score like the nurses. Conclusions: The distress level of professional caregivers in a hospital setting should be taken into consideration in relation to their perception and appraisal of patients’ symptoms. Further research could be valuable for this subject.

Poster N°: 482

Type of presentation: Poster
Poster session: Second group 30 May Friday 13.30 to 31 May Saturday 13.30
Category: Psychology & communication
Title: Main Reason for not Including Patients in an IP ALEX Study
Presenting author: Javier Rocafort Gil
Authors: Raquel Cabo Domínguez Palliative Care Team of Extremadura Badajoz SPAIN
Laura Blanco Toro Palliative Care Servicio Extremadura de Salud SPAIN
Paloma Encinas Martínez Palliative care team of Extremadura Zafra SPAIN
Javier Rocafort Gil Regional Palliative Care Program of Extremadura Mérida SPAIN
Petra González Cañamero Palliative Care Team of Extremadura Don Benito SPAIN
Raquel Cabo Domínguez Palliative Care Team of Extremadura Badajoz SPAIN
Esther Martín Molpeceres Palliative Care Team of Extremadura Cáceres SPAIN
David Gamez García Palliative Care Team of Extremadura Plasencia SPAIN

Introduction: The Palliative Care Regional Observatory deemed appropriate to start a research project: “Effectiveness of psychological intervention in some adaptive disorders in palliative care.” Once was started, it was noticed the scarce inclusion of patients in the study so a data collection was initiated in the same context in order to determine the main difficulties. Goal: Determination of the main difficulties to include patients in a psychological effectiveness study. Material and Method: Transversal study in which there were collected the main difficulties arisen in a month during the patients’ inclusion in a study. The collected difficulties were selected as agreed by the psychologists leading the job and there were as follows: Did not they fulfil the study inclusion criteria? This section was composed by four criteria: No anxiety/depression disorders, They suffer from complex symptoms, They have been object of a previous psychological intervention, or They have suffered from a Neuropsychiatric disorder in less than 6 months. Is not there an agreement in the PCT to be included? Specify the cause and Patient’s refusal to sign the consent. The data collection was made in an Excel table by psychologists. Results: There were collected difficulties related to 125 patients. The results were: 110 patients (88%) did not fulfill the criteria for inclusion in the study, among them, 46 patients (36.8%) did not suffer from anxiety / depression disorders, 46 patients (36.8%) suffered from complex symptoms, 3 patients (2.4%) have been object of a previous psychological intervention and 15 patients (12%) have suffered from a neuropsychiatric disorder in less than 6 months. In 9 cases (7.2%) there was no agreement in the PCT for the patient to be included in the study. And the main reasons were: 5 patients (55.5%) could not be evaluated (bad general condition or severe cognitive deterioration), 1 patient (11.1%) died early, 1 patient (11.1%) did not one psychological attention and in other patient case (11.1%) there existed “silent conspiracy” and the family did not want the patient to participate. 6 patients (4.8%) refused to sign the consent. Conclusions: The vast majority of the difficulties could be the result of strict inclusion and exclusion criteria and of the peculiar characteristics of the terminally ill.
**Poster N°: 483**

Type of presentation: Poster & poster discussion session

Poster session: Second group 30 May Friday 13.30 to 31 May Saturday 13.30

Category: Research methodology

**Title:** Designing randomised control trial of the management of delirium in palliative care inpatients. What are the challenges and way forward?

**Authors:**
- Meera Agrawal Department of Palliative and Supportive Services Flinders University Australia
- Gideon Caplan Postacute services, Prince of Wales Hospital Sydney Australia
- Sharyn Eckermann Flinders centre for Clinical Change and Health, Flinders University Adelaide Australia
- Christine Sanderson Royal North Shore Hospital Sydney Australia
- Tania Shelby-James Palliative Care Clinical Studies Collaborative, Flinders University Adelaide Australia
- Mark Hill Cell Biology, University of NSW Sydney Australia
- Debra Rosett Pharmacy, Repatriation General Hospital Adelaide Australia
- Peter Lawlor Our Lady’s Hospice, Dublin and University of Alberta, Edmonton Dublin Ireland
- John Plummer Pain Management Unit, Flinders University Adelaide Australia
- Belinda Fazekas Palliative Care Clinical Studies Collaborative, Flinders University Adelaide Australia
- David Currow Dept of Palliative and Supportive Services, Flinders University Adelaide Australia

**Background:** Antipsychotics are first line for delirium despite limited evidence in any health care setting. Few studies that exist explore post treatment efficacy in relation to total delirium score reduction; and don’t clearly measure toxicity profile.

**Methods:** Inclusion criteria define specific delirium symptoms of behavioural and perceptual disturbance. Efficacy: 1. Primary endpoint is resolution of the target delirium symptoms. Time profile of delirium will be described however delirium resolution is not primary objective of antipsychotic therapy. 2. Caregiver and health professional distress, and patient distress at delirium resolution will be measured.

**Toxicity:** Toxidity will be measured using validated scales. Consent: A proxy consent process will be used, within the Australian Guardianship Act Legislation. Placebo arm: A placebo controlled arm can be justified as (a) here is no currently approved medication (b) side effects of medications in both active arms that may outweigh any benefit, if the clinical benefits are marginal (c) non-pharmacological approaches to mild delirium that may be of equal/greater benefit. Biological markers. Serum markers for neuronal apoptosis will be measured. Economic analysis: This will analyse resource use (e.g days in hospital, usage of assistants of nursing), caregiver impact/distress, and treatment effectiveness/toxicity.

**Results:** The methodology of a randomized study of risperidone versus haloperidol versus placebo with rescue is presented.

**Discussion:** Randomised studies in delirium are urgently needed, to look at targeted efficacy, unless there is theoretical basis that the pharmacotherapy aids delirium resolution. Toxicity and patient/caregiver rated outcomes need systematic measurement. It is essential to have placebo arm, as long as adequate rescue medication is available. Studies need to consider exploring patho-physiological and economic correlates. A strength of this study is the collaborative research team spanning multiple disciplines.

**Conclusions:** Recruitment and attrition in this population are known to be difficult for several reasons including the limitations placed on patients by advanced disease, by unexpected complications and deterioration in patients’ conditions. Aims of study: To describe the course of breathlessness in advanced cancer (CA) and COPD and to explore the experience of these breathless patients over time.

**Poster N°: 485**

Type of presentation: Poster

Poster session: Second group 30 May Friday 13.30 to 31 May Saturday 13.30

Category: Research methodology

**Title:** Applying the Delphi process to palliative care tool development: lessons learned

Presenting author: Carla Stiles

**Authors:**
- Claudia Bausewein Department of Palliative Care & Policy King’s College London UNITED KINGDOM
- Sara Booth Palliative Care Services Addenbrookes NHS Trust Cambridge UNITED KINGDOM
- Marjolein Gysels King’s College London, Department of Palliative Care, Policy & Rehabilitation London UNITED KINGDOM
- Robert Kühlbach Medizinische Klinik 3, Klinikum Großhadern München GERMANY
- Irene J Higginson King’s College London, Department of Palliative Care, Policy & Rehabilitation London UNITED KINGDOM

**Background:** When conducting studies in a palliative care (PC) population researchers face several challenges. Recruitment and attrition in this population are known to be difficult for several reasons including the limitations placed on patients by advanced disease, by unexpected complications and deterioration in patients’ conditions. Aims of study: To describe the course of breathlessness in advanced cancer (CA) and COPD and to explore the experience of these breathless patients over time.

**Methods:** We conducted a longitudinal mixed-methods study. For the initial assessment a researcher met the patient personally. For follow-up, patients received monthly postal questionnaires over a 6 month period. A subgroup of patients was also interviewed. Results: 60 COPD (mean age 65 years, SD 9.7; mean KPS 62, SD 11), and 50 CA patients (mean age 64 years, SD 8.7; mean KPS 65, SD 11) were recruited from June 2006 to May 2007. 28 COPD and nine CA patients completed data collection whereas five COPD and 28 CA patients died during the 6 months. 26 COPD patients dropped out mainly due to questionnaire fatigue and 11 CA patients due to physical deterioration.

**Conclusions:** Recruitment for this study was rapid in comparison to many PC studies. This was due to a dedicated researcher and a respiratory hospital with a large number of COPD and lung cancer patients. Attrition occurred for different reasons in the two patient groups: the CA patients deteriorated rapidly and a substantial number died. The intervals between follow up and data collection had been made short enough to capture the experience of CA patients but became fatiguing for patients with COPD in whom little had changed during the period between data collection. Careful planning of the study design related to patients’ populations is necessary to avoid high attrition in PC studies. Standard ways were developed through experience with research with cancer patients but non-cancer populations have different issues.
commonly to palliative care tool development. We have recently employed the Delphi technique in the development of three palliative care assessment tools: the Edmonton Classification System for Cancer Pain (ECS-CP), the Alberta Breakthrough Pain Assessment Tool for Research (ABPAT-R), and the Malignant Wound Assessment Tool (MWAT). 

**Methods:** The purpose of this presentation is to (a) report on our experience of using the Delphi technique for gathering validity evidence for the ECS-CP, ABPAT-R and MWAT; (b) identify challenges in using this technique when considering sampling, study and survey design, consensus setting and response rates; and (c) suggest approaches that can add to its effectiveness in national and international collaborations in palliative care instrument development and research. 

**Results:** Use of the Delphi process resulted in broad expert input into the development of the tools, and supported completion of this step of the tool validation process in a timely and fiscally responsible fashion. Specific tactics to promote successful application of the Delphi process have been identified. 

**Conclusions:** Initiation of the Delphi technique can facilitate national or international tool development working groups to support research and implementation of tools applicable in palliative care clinical or research practice. International input can assure palliative care tools are relevant in diverse clinical settings and practice cultures. The use of the Delphi technique in palliative care tool development may facilitate rapid knowledge transfer and expedite uptake of novel tools across diverse palliative care settings. 

Funding: CIHR Grant PET69772, the Alberta Cancer Board PCRI, and the Caritas Health Group.

**Poster N°: 486**

**Type of presentation:** Poster & poster discussion session 
**Poster session:** Second group 30 May Friday 13.30 to 31 May Saturday 13.30 
**Category:** Research methodology 
**Title:** Charting palliative care development: three approaches 
**Authors:** 
Michael Wright International Observatory on End of Life Care Lancaster University, UK UNITED KINGDOM 
David Clark Lancaster University Lancaster UNITED KINGDOM 

**Background:** There is increasing interest in tracking and comparing the international development of palliative care. Recent publications include a European ‘atlas’ (from a Task Force of the EAPC) and a ‘world map’ (from Lancaster University, UK). Yet both groups of researchers note methodological difficulties due to the varied use and definitions of commonly used terms like ‘hospice’, ‘palliative care’ and ‘development’ – which hamper effective comparison. 

**Aim:** To examine the methodological and operational issues involved in studies of international palliative care development. 

**Methods:** Published, grey literature and internet web sites were examined to determine how palliative care development is understood and charted. These included: 1) research-based studies focusing on Europe, India, Africa, Latin America and the Middle East; 2) single-country reports compiled by palliative care historians and members of national associations. 

**Results:** Three ways of approaching and recording palliative care development were identified: 1) A ‘Linear Approach’ – mainly one dimensional and focusing on events and outcomes; advantages – a summary overview of a country or region, easily up-dated (eg a time-line); limitations – no issues explored. 2) A ‘Thematic Approach’ – mainly two dimensional and focusing on themes (eg ethics, education, service delivery) with a template used for data collection; advantages – a deeper understanding of challenges and successes; limitations – difficult to update. 3) An ‘Analytic Approach’ – multi-dimensional and focusing on process, including a categorisation of whole-country development; advantages – a summary of each country’s level of development; limitations – an emerging but unrefined typology. 

**Conclusions:** As innovative ways of charting palliative care development appear in the public domain, a wider debate surrounding their principles, applicability and associated definitions would bring even greater clarity to an area of growing interest.

**Poster N°: 487**

**Type of presentation:** Poster 
**Poster session:** Second group 30 May Friday 13.30 to 31 May Saturday 13.30 
**Category:** Research methodology 
**Title:** Narrative research in palliative care: reviewing methods used to analyse stories about the end of life 
**Authors:** 
Janice Brown School of Nursing & Midwifery University of Southampton UNITED KINGDOM 
Carol Thomas Lancaster University Lancaster UNITED KINGDOM 
Sheila Payne Lancaster University Lancaster UNITED KINGDOM 
Joanne Reeve University of Liverpool Liverpool UNITED KINGDOM 
Amanda Bingley Lancaster University Lancaster UNITED KINGDOM 

**Background:** We aim to examine different narrative analysis methods used in supportive and palliative care research and to explore potential benefits and challenges of incorporating and developing these approaches in research protocols for end of life care. Personal stories about the experience of facing end of life have an established history relevant to palliative care professionals. The phenomenal increase of ‘illness narratives’ has stimulated great interest in health and social science. In recognition of this trend the Cancer Experiences Collaborative (CECo) is using narrative research methods as part of the initiative to build research capacity in palliative care. Narrative research, arising from qualitative methodology, includes a range of analytic methods. 

**Methods:** Eleven key narrative analysis methods are described. Examples of seven different methods are located in papers reporting on research in supportive and palliative care contexts. We examine aims and outcomes in relation to the use of different methods and summarise the benefits, effectiveness and difficulties of using narrative analysis in these contexts. 

**Results:** Practitioners and researchers in palliative care have the opportunity to build on an increasing range of narrative research methods with potential to inform and improve end of life care practice and policy. Although narrative research can be challenging in terms of researcher training requirements in specific skills, significant benefits are reported. These include enhanced understanding of communication patterns during case taking and other patient/professional interactions that may lead to improved planning of care and service delivery, also greater awareness of the complexity of social and emotional needs of patients and caregivers that may not emerge in conventional interviews. 

**Conclusions:** The challenge is how best to develop narrative analysis to maximise the potential to better understand individual and cultural experience at end of life.

**Poster N°: 488**

**Type of presentation:** Poster & poster discussion session 
**Poster session:** Second group 30 May Friday 13.30 to 31 May Saturday 13.30 
**Category:** Research methodology 
**Title:** A post-mortem survey on end-of-life decisions using a representative sample of death certificates: a research protocol for a study in Flanders and Brussels, Belgium 
**Authors:** 
Kenneth Chambaere End-of-Life Care Research Group End-of-Life Care Research Group, Vrije Universiteit Brussel BELGIUM 
Joachim Cohen End-of-Life Care Research Group, Vrije Universiteit Brussel Brussels BELGIUM 
Luc Deliens End-of-Life Care Research Group, Vrije Universiteit Brussel Brussels BELGIUM 
Geert Pousset Bioethics Institute Ghent, Ghent University Ghent BELGIUM 
Freddy Mortier Bioethics Institute Ghent, Ghent University Ghent BELGIUM 
Johan Bilsen End-of-Life Care Research Group, Vrije Universiteit Brussel Brussels BELGIUM 

**Background:** There is increasing interest in tracking and comparing the international development of palliative care. Recent publications include a European ‘atlas’ (from a Task Force of the EAPC) and a ‘world map’ (from Lancaster University, UK). Yet both groups of researchers note methodological difficulties due to the varied use and definitions of commonly used terms like ‘hospice’, ‘palliative care’ and ‘development’ – which hamper effective comparison. 

**Aim:** To examine the methodological and operational issues involved in studies of international palliative care development. 

**Methods:** Published, grey literature and internet web sites were examined to determine how palliative care development is understood and charted. These included: 1) research-based studies focusing on Europe, India, Africa, Latin America and the Middle East; 2) single-country reports compiled by palliative care historians and members of national associations. 

**Results:** Three ways of approaching and recording palliative care development were identified: 1) A ‘Linear Approach’ – mainly one dimensional and focusing on events and outcomes; advantages – a summary overview of a country or region, easily up-dated (eg a time-line); limitations – no issues explored. 2) A ‘Thematic Approach’ – mainly two dimensional and focusing on themes (eg ethics, education, service delivery) with a template used for data collection; advantages – a deeper understanding of challenges and successes; limitations – difficult to update. 3) An ‘Analytic Approach’ – multi-dimensional and focusing on process, including a categorisation of whole-country development; advantages – a summary of each country’s level of development; limitations – an emerging but unrefined typology. 

**Conclusions:** As innovative ways of charting palliative care development appear in the public domain, a wider debate surrounding their principles, applicability and associated definitions would bring even greater clarity to an area of growing interest.
**Background:** Reliable studies on incidence and characteristics of medical end-of-life decisions with a certain or possible life shortening effect (ELDs) are indispensable for an evidence-based medical and societal debate on this issue. However, these studies face several methodological difficulties. This presentation outlines how the protocol drafted for the 2007 ELD Study in Flanders and Brussels, Belgium, addresses these difficulties. Methods: Several methodological requirements guided the drafting of the protocol. The main aim of the study was to make reliable incidence estimates of ELDs, even of rare ELDs. Comparability with past ELD studies was favorable. Given the sensitive nature of the research topic, strict anonymity had to be guaranteed, and special attention had to be paid to a sufficient response rate. Results: Reliable incidence estimates were possible by using large at random samples of death certificates of deceased persons in Flanders and Brussels. This needed the cooperation of the appropriate authorities. To obtain reliable estimates for less prevalent ELDs, a stratified sample was used. Questionnaires were sent out to the certifying physician of each included death. The questionnaire was largely based on questions that have been validated in previous Flemish and Dutch end-of-life studies, and avoided emotionally charged terms. It was tested thoroughly and a forward-backward translation was made for French speaking physicians in Brussels. Anonymity of both patients and physicians was guaranteed through a rigorous procedure, involving a lawyer as intermediary between responding physicians and researchers. To increase response we followed the total design method with follow-up mailings. Conclusions: Strictly anonymous and thorough surveys among physicians using a large and representative death certificate sample are appropriate in nationwide studies of incidence and characteristics of ELDs. Past studies in Belgium and other countries have shown the reliability and validity of this methodology.

**Poster N°:** 489

*Type of presentation: Poster*
*Poster session: Second group 30 May Friday 13.30 to 31 May Saturday 13.30*
*Category: Research methodology*
*Title: Nation-wide strategic policy research to monitor quality of end-of-life care in Flanders, Belgium. Presentation of the research program of the MELC-consortium*

**Authors:**
Joachim Cohen End-of-Life Care Research Group Vrije Universiteit Brussel BELGIUM
Luc Deliens End-of-Life Care Research Group – Vrije Universiteit Brussel Brussels BELGIUM
on behalf of the MELC-consortium *VUB, Ugent, UA, VUmcBrussels, Ghent, Antwerp, Amsterdam BELGIUM*

**Background:** Existing end-of-life care (EOLC) research in Flanders, Belgium, is inadequate to guide policy interventions to improve quality of EOLC. For this reason the Monitoring End-of-Life Care Study (MELC) was conceived, with a twofold strategic aim: 1) to evaluate EOLC and possibly life-shortening end-of-life decisions (ELDs) for the overall society in Flanders; 2) to develop quality indicators of and monitoring systems for EOLC and ELDs. Methods: A consortium of leading EOLC research groups from 5 universities was composed to work out MELC and solicit for funding from the Institute for Promotion of Innovation by Science and Technology in Flanders. This presentation describes 1) which aspects were included in the working program, 2) how the strategic policy research requirements were met in order to get funding. Results: A working program for MELC was conceived, consisting of a research axis aimed at collecting data, and another aimed at policy oriented analyses. The first axis consists of: 1) a large-scale death certificate survey on ELDs; 2) a 3-year permanent registration of EOLC via GPs; 3) a survey on EOLC-policy in healthcare institutions; 4) a study of consultations for ELDs; 5) a study on the (legal) notification procedure for euthanasia cases. Six policy analyses based on the collected data will examine and evaluate: 1) laws and regulations on EOLC and ELDs, 2) end of life problems in minor patients, 3) trends in ELD-making, 4) social inequalities, 5) systematic Flanders-Netherlands comparison of EOLC and ELDs, and 6) the development of quality indicators and monitoring systems for EOLC. An elaborate dissemination strategy was outlined to make sure results will reach relevant societal actors. The project proposal received a 3.1 million € funding (2006–2010). Conclusions: Due to its policy-oriented, multidimensional and multidisciplinary conception, the MELC study will substantially contribute to the improvement of scientific evidence on EOLC and ELDs, and hence to a more evidence based EOLC policy.
Background: Recent research has resulted in major advances in palliative care. However, study of effective means to transfer new knowledge in order to bring innovations into mainstream clinical and research practice, needs much more attention. Bibliometric methodological studies can plot uptake of new knowledge, over time, by evaluating how key articles are cited in published literature. Such studies can provide a roadmap of how knowledge is diffused, through which channels, and by whom, over time. We hypothesize that bibliometric methods can inform design of local, national and international palliative care knowledge transfer programs. Methods: The Edmonton Symptom Assessment Scale (ESAS) is a simple patient assessment tool that is routinely used in many countries around the world. We are studying the uptake of the ESAS over time, by geographical locale and by professional groups, as evidenced by citations within peer-reviewed and "grey" literature. Using ten standard databases including Medline, CINAHL and others, we identified papers where the tool was first cited. The radar graph (spider web) analysis technique includes an examination of: the pattern of citation statistics, year and frequency, subject disciplines of the citing works' journals, and other domains. Results: A preliminary analysis indicates a rapid and multinational uptake of the tool, evidenced by its citation within diverse specific clinical settings, professional groups and countries. Analysis of factors that appear instrumental to the successful launch and uptake of the ESAS within academic and clinical communities will be presented. Conclusions: The intended outcome of this research is to identify communities of practice associated with the early adoption and publication of this effective symptom assessment tool in order to identify attributes of effective diffusion of innovation, to inform future programs of knowledge transfer in palliative and end of life care. Funding: CIHR grant-PET69772.

Poster N°: 492

Type of presentation: Poster
Poster session: Second group 30 May Friday 13.30 to 31 May Saturday 13.30
Category: Research methodology
Title: Research, development & primary palliative care – closing the gaps
Presenting author: Teresa Young
Authors:
Alison Donaldson Complexity & Management Centre Business School, University of Hertfordshire UNITED KINGDOM
Elizabeth Lank Independent specialist in collaborative working Ascot UNITED KINGDOM
Jane Maher Complexity & Management Centre, Business School, Univ. of Hertfordshire; Mt Vernon Cancer Centre Hatfield; Northwood UNITED KINGDOM

Background: Aim: Since 2004 a UK cancer charity has been testing new ways of stimulating collaborative research to help improve the quality of community palliative care. Methods: The charity set up and supported a collaborative research & evaluation group (15 individuals, 6 UK universities) over 3 years. Innovative features included member selection, research commissioning process, types of funding & facilitation of collaborative behaviour. The group prioritised clinician researchers (GPs, palliative medicine specialists, a community nurse) & included managers, a patient & a lay carer. Members were selected not just for interests & experience but also for established relationships with the charity &/or with each other. Initial aims were to (i) support/refute the value of UK spread programme for the Gold Standards Framework for community palliative care (1300 UK practices, potentially reaching 10m people) (ii) act as a collaborative learning community. Funding took 3 forms: project funding (based on iterative commissioning), person-based funding (backfill) & group funding (costs of meetings, administration & narrative tracking.) Results: (i) Emerging body of knowledge about palliative care in general practice (with 955 practices, i.e. 73%, completing questionnaires) & in care homes – 16 peer-reviewed publications, c.30 presentations, c.20 literature reviews) (ii) valuable learning about collaboration – between academics, between universities & a charity, between researchers & service developers, & between professionals & lay people (iii) professional development for group members eg 2 PhDs, 2 new chairs & a postdoctoral fellowship; (iv) growth of working relationships that will facilitate further patient-centred research. Conclusions: Instead of funding full-time academic posts, the charity stimulated collaboration between researchers in an under-researched field with results directly applicable for service improvement; the funding method proved cost-effective.

Poster N°: 493

Type of presentation: Poster
Poster session: Second group 30 May Friday 13.30 to 31 May Saturday 13.30
Category: Research methodology
Title: A case study of storytelling as an evaluation method
Authors:
Katherine Froggatt International Observatory on End of Life Care Lancaster University UNITED KINGDOM
Amanda Bingley Lancaster University Lancaster UNITED KINGDOM
Zephran Barbarachild Lancaster University Lancaster UNITED KINGDOM

Background: The Storytelling Project helps people with cancer tell their illness and end-of-life stories in a group setting, supported by a professional storyteller. The initiative aims to help develop metanarratives available to individuals and communities about dying and death. A formative evaluation is being undertaken using storytelling as a research method. This poster 1. Describes the process of storytelling as an evaluation method; 2. Identifies challenges faced in using this evaluation approach; 3. Proposes key components of storytelling as evaluation for future research. Methods: Narrative research methods informed the data collection and analysis. Oral storytelling and creative writing were used with the individuals in the project to capture their experiences. There are also individual interviews with the three key stakeholders who developed and delivered the Storytelling Initiative. The researcher joined group meetings with participants (n= 6) from the first and second storytelling groups, writing up field notes as narrative reports. Narrative analysis was then undertaken of the stories to examine imagery in the different stages of the storytelling and group work processes. Results: The participants place a high value on telling the stories of their experiences. The narrative structures identified in stories of bereavement and end-of-life care are mirrored in the stories told about the project’s development. Challenges identified include: self-reflexivity, how to listen and finding appropriate analytical strategies. Key elements of evaluation through storytelling include: engagement with primary and secondary storytelling processes; reflexive data collection and analysis and researcher roles and skills. Conclusions: The methodology is congruent with this specific initiative. Creative storytelling allows people to communicate different levels of experience, that may otherwise be hidden. It has value as a research method in other evaluation studies.

Poster N°: 494

Type of presentation: Poster
Poster session: Second group 30 May Friday 13.30 to 31 May Saturday 13.30
Category: Research methodology
Title: Barriers to Recruitment to the Prognosis in Palliative Care Study (PiPS): a multicentre palliative care study
Authors:
Bridget Gwilliam Division of Mental Health, 6th Flr Hunter Wing, St Georges University of London, UNITED KINGDOM
Alison Cubbitt St Ann's Hospice, Little Hulton, Manchester Manchester UNITED KINGDOM
Anne Harbison East Surrey Hospital Redhill UNITED KINGDOM
Debra Hart St Ann's Hospice, Little Hulton, Manchester Manchester UNITED KINGDOM

Background: The Prognosis in Palliative Care Study (PiPS) is being undertaken using storytelling as a research method. This poster 1. Describes the process of storytelling as an evaluation method; 2. Identifies challenges faced in using this evaluation approach; 3. Proposes key components of storytelling as evaluation for future research. Methods: Narrative research methods informed the data collection and analysis. Oral storytelling and creative writing were used with the individuals in the project to capture their experiences. There are also individual interviews with the three key stakeholders who developed and delivered the Storytelling Initiative. The researcher joined group meetings with participants (n= 6) from the first and second storytelling groups, writing up field notes as narrative reports. Narrative analysis was then undertaken of the stories to examine imagery in the different stages of the storytelling and group work processes. Results: The participants place a high value on telling the stories of their experiences. The narrative structures identified in stories of bereavement and end-of-life care are mirrored in the stories told about the project’s development. Challenges identified include: self-reflexivity, how to listen and finding appropriate analytical strategies. Key elements of evaluation through storytelling include: engagement with primary and secondary storytelling processes; reflexive data collection and analysis and researcher roles and skills. Conclusions: The methodology is congruent with this specific initiative. Creative storytelling allows people to communicate different levels of experience, that may otherwise be hidden. It has value as a research method in other evaluation studies.

Palliative Medicine 553
Background: The PiPS study is a prospective, observational study to develop a novel prognostic index for use in patients with advanced cancer. It is a UK multicentre study running at four centres. It has been designed to include both competent and incompetent patients. Patients from inpatient hospice units, day-care, home-care and hospital support teams are included. Aim: To identify barriers to recruitment, nationally, during the first 6 months of screening. Methods: An electronic screening log was developed so that all newly referred patients to the participating centres could be systematically assessed for suitability for inclusion to the study. Data were collected on a. Numbers of eligible patients b. Number whom the researchers actually accessed c. Number consented d. Proportions of competent and incompetent patients e. Reasons why patients were not approached and f. reasons why consent was refused. Screening data from all centres for the first 6 months of recruitment were analysed. Results: 774 / 1326 screened patients (58%) were eligible. Of these, 322 (42%) were accessed and 137 (18%) consented. Community patients were most difficult to recruit (4% of those eligible) and inpatient hospices were the most efficient recruiters (27%). Once accessed, 38% of competent and 68% of incompetent patients were recruited respectively. 46/137 (33%) of all recruits were considered incompetent. The main barriers to recruitment were a. Patients dying or being discharged rapidly (20% of eligible patients) b. ‘Gatekeeping’ by clinical staff (16%). Conclusions: A total recruitment of 138 patients in 6 months demonstrates that recruitment of large numbers to a multicentre palliative care study is possible. However, recruitment remains below the target of 235. Incompetent patients have not been difficult to recruit. Screening logs help identify recruitment barriers which can then be addressed appropriately (eg. intensive education programme to reduce gatekeeping).

Poster N°: 495

Type of presentation: Poster
Poster session: Second group 30 May Friday 13.30 to 31 May Saturday 13.30
Category: Research methodology
Title: Minimum data set for palliative and end of life research in Nova Scotia, Canada
Authors:
Grace Johnston School of Health Services Administration Dalhousie University CANADA
Frederick Burge Dalhousie University Halifax, Nova Scotia CANADA
Craig Kuziemsky University of Ottawa Ottawa, Ontario CANADA
Paul McIntyre Capital Health Halifax, Nova Scotia CANADA
Junaid Kapra Dalhousie University Halifax, Nova Scotia CANADA
Jun Gao Cancer Care Nova Scotia Halifax, Nova Scotia CANADA

Background: Five years of funding has been provided by the Canadian Institutes for Health Research for research capacity enhancement to identify and improve access to care for vulnerable populations at end of life. Almost 6000 persons die each year in our province, of which 41% are cancer, 6% COPD and 3% CHF deaths. Methods: We are assessing and expanding our population based palliative and end of life minimum data set by 1) comparing the palliative care program (PCP) data for two large urban districts which we represent 50% of the population in the province, 2) completing a survey of PCP data available in the seven more rural districts, and 3) linking PCP data to available administrative data. Results: In Canada, PCP data has evolved from local leadership; consistency in data elements across PCPs is lacking. For example, one PCP database uses referral date to identify patients and start of care. Another uses clinical assessment date. Both dates are needed for access and wait time studies. Patient identifiers link PCP data to disease and death registries and person based provincial health service databases. We use ICD causes of death, but as yet lack a population wide system of identifying needs for care. Retrospective population based studies are viable; prospective population studies require validated markers of beginning of need for end of life care. Some person specific measures of vulnerable populations are available (eg older age, rural). Others are community based (eg income, cultural mix) or unavailable (eg homeless). Our new studies go beyond persons dying of cancer to include other chronic diseases, extend into more rural districts, produce surveillance reports, and provide quality care measures. Conclusions: Minimum palliative and end of life population based data are being used for surveillance reporting and research. Enhancements are in progress. Some challenges for adequate data are beyond our current capacity.

Poster N°: 496

Type of presentation: Poster
Poster session: Second group 30 May Friday 13.30 to 31 May Saturday 13.30
Category: Research methodology
Title: The ‘Pictor’ technique: Exploring collaborative working in community palliative care
Authors:
Nigel King Behavioural Sciences University of Huddersfield UNITED KINGDOM
Jane Melvin University of Huddersfield Huddersfield UNITED KINGDOM

Background: Providing palliative care in the community typically requires collaboration between many agencies, including health and social care professionals, family members and others. Understanding how these complex networks of collaboration function is vital for improving services, but studying them is methodologically difficult. This paper presents a technique to help researchers examine complex networks of collaborative working – ‘Pictor’ – and illustrates its use in a study of community nursing roles and relationships. Methods: Interviews were carried out with 42 community nurses from 3 areas, incorporating the ‘Pictor’ technique to explore collaborative working in specific cases. In this technique, participants create a visual layout (or chart) representing their perception of how different agencies were involved in a case; this then serves as the focus for a detailed examination of the case by participant and interviewer. Results: Participants universally found the Pictor technique a very useful and engaging way to reflect on the nature of collaborative working in specific cases. The charts they produced not only proved helpful for researchers within the interview situation but also clearly enriched the analysis, drawing attention to important themes in the data that might not have emerged in conventional semi-structured interviews. Consistent differences in how the Pictor charts were used by groups of participants highlighted important differences in roles and relationships. For instance, the technique drew attention to ways in which the networks drawn upon by the new Community Matrons tended to differ from those of District Nursing team members. Conclusions: The Pictor technique made a significant contribution to the task of exploring collaborative working in community palliative care, and has the potential to be useful in other similar settings. The enthusiasm with which participating nurses completed the task also suggests it may be of great value in professional and team development work.

Poster N°: 497

Type of presentation: Poster
Poster session: Second group 30 May Friday 13.30 to 31 May Saturday 13.30
Category: Research methodology
Title: What about difficulties in Palliative Care Research? Systematic Revision of Literature (2001–2007)
Background: We describe literature review method used to detect and list difficulties about problems dealing with research in Palliative Care. Methods: We conduct a systematic review about difficulties in Palliative Care research in MEDLINE database. Search criteria: palliative care, terminal care, hospices, hospice care, end of life (MESH term); combined with the following terms: “research” AND “difficulties in palliative care research” AND “clinical research”; we limited the search strategy to the last five years (2002–2007) and Spanish and English language. It was also performed a manual checking of non indexed palliative care magazines. Once we collect bibliographic references, we start with a title review in order to select and classify the problems related to research in Palliative Care. Then we conduct an abstract review. From the yielded retrievals, we filter only full text articles. We collect all information described by Palliative Care professionals in their articles. Results: 326 references to articles were obtained from which 184 were selected. This first selection was made based on title, year’s ratios and languages. After the abstracts reading, there were 149 finally selected articles in which contents 26 difficulties were determined after a first individual revision. These difficulties were summarized in 6 big groups: ethical considerations, patient and family characteristics and conditions, professionals in the research, methodology and difficulties in the working environment, cultural and social factors, lack of economic resources. The most common difficulties were associated to patients and family conditions followed by the difficulties in working environment and ethical considerations. Conclusions: A global and systematic approach allowing us to detect and list difficulties in Palliative Care research and a classification with experts will help us to establish a consensus between professionals and elaborate improvement proposals.
committee. The total qualification for each project was calculated by means of the addition and pondered average of each one of the values assigned by each member of the committee. Results: During 2005, the teams presented 16 projects. The evaluation committee was formed by 6 members (RPCPEx Regional Coordinator, two researchers of the Regional Observatory, one advisor coming from the Evaluation Office of the Health Service, a team physician and an external member). The ponderated average value was 2.34. All the scores above the average were accepted with a final result of 9 researches to be developed. Conclusions: Selecting the best projects before conducting them, is an appropriate strategy. An expert group could be necessary to evaluate the projects.

Poster N°: 500

Type of presentation: Poster
Poster session: Second group 30 May Friday 13:30 to 31 May Saturday 13:30
Category: Research methodology
Title: Conducting research with cancer patients. Why is it so difficult?
Authors:
Javier Rocafort Regional Palliative Care Program Extremadurah Health Service SPAIN
Paloma Encinas Extremadurah Health Service Zafra SPAIN
Laura Blanco Extremadurah Health Service Merida SPAIN
Silvia Librada Extremadurah Health Service Merida SPAIN
Emilio Herrera Extremadurah Health Service Merida SPAIN

Background: Research is basic for improving palliative care (PC) in the next future. In order to contribute to increase the level of knowledge, our group in Extremadura is developing some surveys. One of them is a cost-utility study after referring cancer patients and their families during a week to a cottage where a woman cares for them using massage or aromatherapy. Research in PC is difficult, patients are frail and survival times very short. Recruiting patients become sometimes a challenge. Aim: To describe difficulties in recruiting cancer patients for research surveys like this one. Methods: Patients were selected by a Local Cancer Association. Previously to be referred to the cottage, they had to sign their consent and they answered the Euroquol5D, Palliative Outcome Scale and Zarit questionnaires. Next day, month and three-month after the stay, they had to answer the questionnaires another time. To be included, patients had to have some level of depression or anxiety (to be improved with the stay). The reasons for excluding or not including patients in the survey were classified and described. Results: During 1.5 years, 69 patients were selected by the Cancer Association. Only 14 of them finished the 3-month survey and 4 are currently enrolled. 51 patients were excluded or non included. Among them 19 patients didn’t sign the consent, 9 hadn’t enough depression or anxiety, 9 had visited the cottage previously, 4 were not oncologic-patients, 4 were diagnosed in the last 6 months, 3 had a worsening, 1 was under 18 years old, 1 had not caregiver, and another 1 was not localized. Conclusions: Is very difficult conducting surveys with cancer patients when strict conditions to be included are used. (in our study only 21.7% were finally included) Absence of consent is one of the main difficulties showed, but there are a wide range of other circumstances for excluding or not including patients.

Poster N°: 501

Type of presentation: Poster
Poster session: Second group 30 May Friday 13:30 to 31 May Saturday 13:30
Category: Research methodology
Title: Conducting qualitative research interviews with children with life-limiting conditions: The methodological needs and nuances
Authors:
Alison Rodriguez Behavioural Sciences University of Huddersfield UNITED KINGDOM
Nigel King University of Huddersfield Huddersfield UNITED KINGDOM

Background: A great amount of what we know about children with life-limiting conditions is gained from interviews with adults who know them well, for example parents and practitioners. However, by interviewing the children themselves, it is possible to collect data that are otherwise unobtainable. This paper presents the methodological findings from a qualitative study which involved children with life-limiting conditions. Methods: Five phenomenological interviews were conducted with children with life-limiting conditions, ranging from five to fifteen years of age. The aim was to gather data pertaining to their lived experiences of life-limiting illness. Drawing and writing exercises were used as a means of setting the children at ease and the children were given the freewill to determine the direction of the interview. Results: An interview averaging forty minutes was conducted with each child in their own homes. All Interviews commenced in quiet and private settings to reduce distractions as much as possible. However, if the children expressed a desire to move locations within the home, change the subjects of conversation or go and interact with others, this was permitted. At times, keeping the interview focus was difficult. The researcher’s sensitivity and judgement was used to determine the length of the interview. A number of interesting and harrowing themes evolved from the interviews highlighting the fears and hopes of children who experience life-limiting illness. Conclusions: The power and superiority status ascribed to adults in society means it is difficult for children to present their ideas openly as they often think that they are expected to listen and follow. It is also difficult for children to ‘step aside’ and reflect on their own experiences. To obtain a breadth and depth of data, the researcher needs to move away from the ‘interviewer frame’ and enter the world of the child. This can be achieved by engaging in age appropriate interaction and by adopting a relaxed questioning route.

Poster N°: 502

Type of presentation: Poster
Poster session: Second group 30 May Friday 13:30 to 31 May Saturday 13:30
Category: Research methodology
Title: Palliative Care Clinical Studies Collaborative PaCCSC
Authors:
Tania Shelly-James Palliative and Supportive Services Flinders University AUSTRALIA
Debra Rowett Drug and Therapeutic Information Service, Repatriation General Hospital Daw Park, SA AUSTRALIA
Simon Eckermann Flinders Centre for Clinical Change and Health Care Research, Flinders University Bedford Park, SA AUSTRALIA
John Plummer Pain Management Unit, Flinders Medical CentreBedford Park, SA AUSTRALIA
David Currow Palliative and Supportive Services, Flinders University Bedford Park, SA AUSTRALIA
Geoffrey Goulay Pain Management Unit, Flinders Medical Centre Bedford Park, SA AUSTRALIA
Amy Abernethy Duke University Medical Centre Durham, NC U. STATES

Background: The Australian Government Department of Health and Ageing, under the National Palliative Care Strategy has provided funding for a national multi-site palliative care clinical studies research collaborative (PaCCSC). The collaborative aims to improve the quality of information for clinical decision making and through this also increase access to key medicines for symptom control in the community. PaCCSC includes key opinion leaders experienced in palliative care clinical study methodology and experts in clinical research, complemented by experts in clinical pharmacology, pharmacoeconomics, biostatistics, clinical study methodology and health policy. Methods: Under the direction of a national Trials Management Committee protocols for six priority medicines are currently being developed for randomised double blinded phase III studies: • Risperidone for delirium • Ketamine for complex pain • Ketorolac for cancer pain • Ondroctide for inopperable bowel obstruction • Megestrol acetate for anorexia • Ondansetron for cholestatic itch This will be complemented by additional pharmacovigilance studies and consumer impact statements
focusing on the symptoms of interest. Results: The collaborative has initiated recruitment of all six studies within the a priori defined timeframe, however the development of a multi-site research collaborative of palliative care services has been challenging. This presentation will describe the establishment, governance structure and management processes of the collaborative and achievements to date. Conclusions: PaCCSC will allow palliative care to more formally explore efficacy, effectiveness and safety of key medicines within Australia for registration and subsidy applications. At the same time, it is going to allow palliative care clinical researchers from across the country to work collaboratively on the development and implementation of clinical studies, protocols and publications of rigorous, adequately powered randomised studies.

Poster N°: 503

Type of presentation: Poster
Poster session: Second group 30 May Friday 13.30 to 31 May Saturday 13.30
Category: Research methodology
Title: The Before-After Study Design in Palliative Care Research
Authors:
Steffen Simon Department of Palliative Care,
Department of Palliative Care, King's College GERMANY
Irene Higginson Department of Palliative Care, King's College London London UNITED KINGDOM

Background: Randomised Control Trials (RCTs) are the gold standard for the evaluation of efficacy in clinical trials. However, there are a lot of difficulties and pitfalls to conduct a RCT in palliative care research. The quasi-experimental Before-after study design (b-a) could be an alternative method in this field. Methods: Objective: To discuss the pros and cons of the b-a study design for the evaluation of efficacy and effectiveness in palliative care research. Methods: Critical review of the literature and methodological discussion of the b-a study design. Results: The methodological aim of a study is to achieve the highest possible degree of internal validity. Internal validity is the extent to which the results of a study are likely to be true and free of bias. The advantage of the b-a design is the experimental character without randomisation. The design is feasible especially in palliative care settings, less expensive and time consuming than a RCT. But there are weaknesses of this design like secular trends (change over a period of time as a general development independently from the intervention), regression to the mean (the tendency of individuals at the extremes to have values nearer to the mean on repeated measurements) and various biases and confounding. Various strategies strengthen the validity of this study design: clear defined research questions, outcomes and valid outcome measures to minimize selection and measurement bias; using a control group to monitor secular trends; matching and restriction for potential confounders; and others. Conclusions: Although the RCT is the gold standard to evaluate efficacy, this design is not always feasible. The Before-after study design is an appropriate alternative, but has its own weaknesses and limitations. Particularly in the field of palliative care more well-designed and evidence-based studies with a sufficient validity are needed. Therefore it is recommendable to strengthen the studies methodology.

Poster N°: 504

Type of presentation: Poster
Poster session: Second group 30 May Friday 13.30 to 31 May Saturday 13.30
Category: Research methodology
Title: Guideline development methods for EPCRC
Authors:
Peter Trottenberg Klinik für Palliativmedizin RWTH Aachen University GERMANY
Stein Kausa NTNU/ St. Olav’s Hospital Trondheim NORWAY

Frank Elsner Dept. of Palliative Medicine, University of Aachen Aachen GERMANY
Augusto CaraceniNational Cancer Institute of MilanMilano ITALY
Irene Higginson King’s College London UNITED KINGDOM
Lukas Radbruch Dept. of Palliative Medicine, University of Aachen Aachen GERMANY

representing the EPCRC

Background: Within the EPCRC three work packages will develop clinical practice guidelines for the treatment of pain, depression and cancer cachexia in advanced cancer patients. The first step was to define a common method for the development of the guidelines to start a synchronized, comparable and effective working process. Methods: Systematic literature reviews were performed on guideline development in general but also in the field of palliative care. In addition systems for grading evidence and strength of recommendations were reviewed. Frequently used consensus methods were summarized. Results: We searched PubMed using the search strategy : (guideline*[TI] OR standard*[TI] OR recommendation*[TI] AND (development*[TI] OR construction*[TI]) AND palliative, receiving 17 hits with 9 applicable articles. The guideline method of EPCRC follows the NICE process closely. Each work package uses a local-, steering- and an external expert group, integrating experts and stakeholders from all over Europe, covering different ethical and cultural settings. Guideline development includes defining the scope and identifying key questions, drafting recommendations and evaluating the evidence of effectiveness of these draft recommendations with systematic literature reviews. In areas where evidence is not available consensus has to be established and the Delphi process was selected as the optimal procedure for this. The recommendations will be revised if missing areas are identified during the process. The final guideline will be marked with an expiry date when revision will be necessary to acknowledge new developments. Conclusions: The guidelines of the EPCRC are developed with a robust methodology. The process will be finalized in November 2009 and the EPCRC will be able to present current clinical practice guidelines based on best available evidence.

Poster N°: 505

Type of presentation: Poster
Poster session: Second group 30 May Friday 13.30 to 31 May Saturday 13.30
Category: Research methodology
Title: An exploration of palliative care nurses’ decision-making in the use of prn sedation
Authors:
Pauline Ui Dhubhbir Education Out Lady's Hospice IRELAND

Background: Palliative care nurses are challenged to manage complex symptoms in end of life care. It is in the context of trying to manage such symptoms that the issue of appropriate prn sedation arises. The use of sedation for symptom management in the palliative setting has been described in the literature since 1990 with both clinical and ethical aspects addressed. Problem/Objective: It is of major concern however, that little literature exists regarding pro re nata (prn) sedation from a nursing perspective. The administration of prn sedation is frequently a nurse-led activity, with nurses making decisions about when to administer sedation and how much sedation to give. Yet little is known about how nurses make these decisions or the difficulties they encounter in this complex clinical and ethical environment. There is a need for nurses to explore their practice, acknowledge the difficulties that arise for them and use this knowledge to inform practice. The aim of this study is to describe prn sedation from a nursing perspective and to identify the difficulties palliative care nurses experience with regard to their decision making in the use of prn sedation. Method: A phenomenological study using a Heidegger approach was undertaken. Semi-structured interviews were conducted to collect data. A purposive sample was used. Nine nurses at three Irish in-patient palliative care wards were invited to take
part in this study. Each nurse had at least one year of palliative nursing experience. Ethical considerations were addressed. **Results:** Nurses displayed an immense commitment to relieving the distress of patients. Routine prescribing, the absence of guidelines and poor documentation contributed to difficulties in decision-making, suggesting a review of these practices is needed. Patient preferences are not routinely sought, adding to nurses' uncertainty. Nurses grow in confidence with experience, colleague support and knowledge. The multi-disciplinary team, education and the family are major influences in the nurse's decision-making. The need for on-going support and education for nurses is identified, particularly with regard to helping nurses to speak to patients about death and their treatment choices as death approaches.
**Authors Index for EAPC Abstracts**

### Author and Abstract number

<table>
<thead>
<tr>
<th>A</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Aas Nina</td>
<td>265</td>
</tr>
<tr>
<td>Aaland, Olaf Gjerløw</td>
<td>477</td>
</tr>
<tr>
<td>Aharshe, Eun</td>
<td>205</td>
</tr>
<tr>
<td>Abbey, Jennifer</td>
<td>174</td>
</tr>
<tr>
<td>Adams, Deirdre</td>
<td>211</td>
</tr>
<tr>
<td>Addington-Hall, Julia</td>
<td>20, 121, 125, 132, 167, 242, 382, 415, 420</td>
</tr>
<tr>
<td>Addolfoison, Jan</td>
<td>157</td>
</tr>
<tr>
<td>Agar, Meera</td>
<td>483</td>
</tr>
<tr>
<td>Aguil, Carolina</td>
<td>4</td>
</tr>
<tr>
<td>Aguilera, Carmen</td>
<td>153</td>
</tr>
<tr>
<td>Agupio, Godfrey</td>
<td>178</td>
</tr>
<tr>
<td>Ahmed, Nisar</td>
<td>188</td>
</tr>
<tr>
<td>Alexander, Nicholas</td>
<td>215</td>
</tr>
<tr>
<td>Ahmedzai, Sam</td>
<td>188</td>
</tr>
<tr>
<td>Alabisco, Oscar</td>
<td>279</td>
</tr>
<tr>
<td>Alexander, Susanna</td>
<td>141</td>
</tr>
<tr>
<td>Allal, Abdelkarim</td>
<td>278</td>
</tr>
<tr>
<td>Allard, Pierre</td>
<td>433</td>
</tr>
<tr>
<td>Almack, Kathryn</td>
<td>224</td>
</tr>
<tr>
<td>Alonso, Prado Maria</td>
<td>226</td>
</tr>
<tr>
<td>Alsirafy, Sam</td>
<td>417</td>
</tr>
<tr>
<td>Alt-Epping, Bernd</td>
<td>424</td>
</tr>
<tr>
<td>Altmeyer, Sigrid</td>
<td>312</td>
</tr>
<tr>
<td>Amaducci, Laura</td>
<td>274</td>
</tr>
<tr>
<td>Amakawa, Liana</td>
<td>174</td>
</tr>
<tr>
<td>Ambrosini, Maria Teresa</td>
<td>255</td>
</tr>
<tr>
<td>Aminoff, Bechor Zvi</td>
<td>149, 206, 207, 361</td>
</tr>
<tr>
<td>Andersen, Sonja</td>
<td>189</td>
</tr>
<tr>
<td>Andersen, Torben C.</td>
<td>41</td>
</tr>
<tr>
<td>Andrada, Lina</td>
<td>205</td>
</tr>
<tr>
<td>André, Beate</td>
<td>308</td>
</tr>
<tr>
<td>Andrews, Paul</td>
<td>141</td>
</tr>
<tr>
<td>Andrtsch Elisabeth</td>
<td>482</td>
</tr>
<tr>
<td>Apolone, Giovanni</td>
<td>71, 252</td>
</tr>
<tr>
<td>Arantzamendi, Maria</td>
<td>382</td>
</tr>
<tr>
<td>Armojo-Olivo, Susan</td>
<td>85</td>
</tr>
<tr>
<td>Arnott, Janine</td>
<td>470</td>
</tr>
<tr>
<td>Arrolk, Milinder</td>
<td>327, 328</td>
</tr>
<tr>
<td>Arthur, Tony</td>
<td>224</td>
</tr>
<tr>
<td>Askjorn, Neergaard Mette</td>
<td>320</td>
</tr>
<tr>
<td>Auperdott, Gadlaug Helga</td>
<td>179</td>
</tr>
<tr>
<td>Asp, May, Briit</td>
<td>146</td>
</tr>
<tr>
<td>Axellson, Bertil</td>
<td>19, 261</td>
</tr>
<tr>
<td>B</td>
<td></td>
</tr>
<tr>
<td>Bak Tomasz</td>
<td>213, 228</td>
</tr>
<tr>
<td>Baar, Cecilie</td>
<td>189</td>
</tr>
<tr>
<td>Babcock, Kelly</td>
<td>433</td>
</tr>
<tr>
<td>Bacchin, Valentina</td>
<td>279</td>
</tr>
<tr>
<td>Baiguii, Giuseppe</td>
<td>472</td>
</tr>
<tr>
<td>Bailey, Barbara L.</td>
<td>371</td>
</tr>
<tr>
<td>Baird, Lena</td>
<td>392</td>
</tr>
<tr>
<td>Baker, Lee</td>
<td>127, 330</td>
</tr>
<tr>
<td>Balafouta, Myrsini</td>
<td>438</td>
</tr>
<tr>
<td>Bamink, Marjoelien</td>
<td>184</td>
</tr>
<tr>
<td>Baracas, Vickie</td>
<td>12</td>
</tr>
<tr>
<td>Barak, Frida</td>
<td>329</td>
</tr>
<tr>
<td>Barbarachild, Zephran</td>
<td>493</td>
</tr>
<tr>
<td>Barclay, Stephen</td>
<td>300</td>
</tr>
<tr>
<td>Barreto, Pilar</td>
<td>358</td>
</tr>
<tr>
<td>Bartzels, Utz</td>
<td>241</td>
</tr>
<tr>
<td>Bartlova, M.</td>
<td>480</td>
</tr>
<tr>
<td>Bartner, Rupert</td>
<td>236</td>
</tr>
<tr>
<td>Bath, Peter</td>
<td>221</td>
</tr>
<tr>
<td>Batley, Jodie</td>
<td>208</td>
</tr>
<tr>
<td>Bauer, Sheila</td>
<td>317</td>
</tr>
<tr>
<td>Baumann, Kim</td>
<td>170, 186</td>
</tr>
<tr>
<td>Bauswein, Claudia</td>
<td>51, 194, 209, 484</td>
</tr>
<tr>
<td>Bauwens, Sabien</td>
<td>18, 25, 212</td>
</tr>
<tr>
<td>Beattie, James</td>
<td>422</td>
</tr>
<tr>
<td>Beder, Mike</td>
<td>143, 327, 328, 458</td>
</tr>
<tr>
<td>Bencoci, Sara</td>
<td>245</td>
</tr>
<tr>
<td>Berger, Ola</td>
<td>478</td>
</tr>
<tr>
<td>Bernard, Caroline</td>
<td>214</td>
</tr>
<tr>
<td>Bernheim, Jan</td>
<td>469</td>
</tr>
<tr>
<td>Bertetto, Oscar</td>
<td>252</td>
</tr>
<tr>
<td>Bertolino, Mariela</td>
<td>64, 287</td>
</tr>
<tr>
<td>Besson, Marie</td>
<td>260</td>
</tr>
<tr>
<td>Beynon, Teresa</td>
<td>90</td>
</tr>
<tr>
<td>Bicavo, Lesley</td>
<td>30</td>
</tr>
<tr>
<td>Bilsen, Johan</td>
<td>87</td>
</tr>
<tr>
<td>Biondo, Patricia</td>
<td>485</td>
</tr>
<tr>
<td>Blano Toro, Laura</td>
<td>467</td>
</tr>
<tr>
<td>Blankford, Roger</td>
<td>431</td>
</tr>
<tr>
<td>Blankenburg, Markus</td>
<td>7, 9, 297</td>
</tr>
<tr>
<td>Block van den, Lieve</td>
<td>205</td>
</tr>
<tr>
<td>Blower, Tony</td>
<td>431</td>
</tr>
<tr>
<td>Blum, David</td>
<td>425</td>
</tr>
<tr>
<td>Boceta, Osuna Jaime</td>
<td>153</td>
</tr>
<tr>
<td>Boland, Angela</td>
<td>48</td>
</tr>
<tr>
<td>Boland, Jason</td>
<td>148, 163</td>
</tr>
<tr>
<td>Boletter, Kevin</td>
<td>221</td>
</tr>
<tr>
<td>Bonde, Jensen Anders</td>
<td>222, 320, 360</td>
</tr>
<tr>
<td>Boonwick, Helen</td>
<td>199</td>
</tr>
<tr>
<td>Booth, Sara</td>
<td>53</td>
</tr>
<tr>
<td>Borasio, Gian D</td>
<td>416</td>
</tr>
<tr>
<td>Borchevinsk, Petter C</td>
<td>193</td>
</tr>
<tr>
<td>Bordin, Francesca</td>
<td>150</td>
</tr>
<tr>
<td>Borgsteede, Sander D</td>
<td>84</td>
</tr>
<tr>
<td>Bosert, Petra</td>
<td>278</td>
</tr>
<tr>
<td>Bossuyt, Inge</td>
<td>374</td>
</tr>
<tr>
<td>Bossuyt, Nathalie</td>
<td>18, 25, 212, 227</td>
</tr>
<tr>
<td>Botelaar, René-Alfons</td>
<td>312</td>
</tr>
<tr>
<td>Boyd, Angela</td>
<td>86, 426</td>
</tr>
<tr>
<td>Bracchi, Paola</td>
<td>257</td>
</tr>
<tr>
<td>Braildwaite, Maxine</td>
<td>10</td>
</tr>
<tr>
<td>Brandi, Hella</td>
<td>17, 103</td>
</tr>
<tr>
<td>Braun, Mark</td>
<td>209</td>
</tr>
<tr>
<td>Bray, Caroline</td>
<td>137</td>
</tr>
<tr>
<td>Brazil, Kevin</td>
<td>317</td>
</tr>
<tr>
<td>Breibart, William</td>
<td>45, 174</td>
</tr>
<tr>
<td>Brennies, Carleen</td>
<td>4</td>
</tr>
<tr>
<td>Breteron, Louise</td>
<td>322</td>
</tr>
<tr>
<td>Bresica, Robert</td>
<td>174</td>
</tr>
<tr>
<td>Briggs, Linda</td>
<td>29</td>
</tr>
<tr>
<td>Broeckert, Bert</td>
<td>80, 109</td>
</tr>
<tr>
<td>Brogaard, Trine</td>
<td>486</td>
</tr>
<tr>
<td>Brooks, Melanie</td>
<td>253</td>
</tr>
<tr>
<td>Brown, Janice</td>
<td>310, 415, 487</td>
</tr>
<tr>
<td>Brown, Stuart</td>
<td>417</td>
</tr>
<tr>
<td>Bruera, Eduardo</td>
<td>21</td>
</tr>
<tr>
<td>Brunsell, Cinzia</td>
<td>72</td>
</tr>
<tr>
<td>Brunskill, Helen</td>
<td>494</td>
</tr>
<tr>
<td>Brunnahan, Deans</td>
<td>127, 330</td>
</tr>
<tr>
<td>Büntzel Heike</td>
<td>254</td>
</tr>
<tr>
<td>Bunting, Hilde</td>
<td>76, 243</td>
</tr>
<tr>
<td>Bunge, Sofia</td>
<td>64</td>
</tr>
<tr>
<td>Burke, Frederick</td>
<td>63, 495</td>
</tr>
<tr>
<td>Burn, Kathy</td>
<td>131</td>
</tr>
<tr>
<td>Burton, Chris</td>
<td>125</td>
</tr>
<tr>
<td>Busby, Katie</td>
<td>66</td>
</tr>
<tr>
<td>Bykova, Larisa</td>
<td>251</td>
</tr>
<tr>
<td>Byrne, Catherine</td>
<td>314, 375</td>
</tr>
<tr>
<td>C</td>
<td></td>
</tr>
<tr>
<td>Cabo, Domingo Raquel</td>
<td>481</td>
</tr>
<tr>
<td>Cabotte, Elisabeth</td>
<td>445, 463</td>
</tr>
<tr>
<td>Cachia, Elaine</td>
<td>148</td>
</tr>
<tr>
<td>Calderon, Bianca</td>
<td>191</td>
</tr>
<tr>
<td>Callaway, Mary</td>
<td>74</td>
</tr>
<tr>
<td>Cameron, Barbara</td>
<td>317</td>
</tr>
<tr>
<td>Campbell, Colin</td>
<td>328</td>
</tr>
<tr>
<td>Candy, Bridgeit</td>
<td>70</td>
</tr>
<tr>
<td>Cann, P</td>
<td>467</td>
</tr>
<tr>
<td>Capelas, Manuel Luis</td>
<td>256</td>
</tr>
<tr>
<td>Caplan, Gideon</td>
<td>483</td>
</tr>
<tr>
<td>Caraceni, Augusto</td>
<td>57, 151, 257</td>
</tr>
<tr>
<td>Cardinali, Massimiliiano</td>
<td>280</td>
</tr>
<tr>
<td>Caress, Ann-Louise</td>
<td>325</td>
</tr>
<tr>
<td>Carlson, Linda</td>
<td>158</td>
</tr>
<tr>
<td>Carrorado, Garcia Pablo</td>
<td>473</td>
</tr>
<tr>
<td>Carrigan, Joan</td>
<td>392</td>
</tr>
<tr>
<td>Carvajal, Ana</td>
<td>144, 382</td>
</tr>
<tr>
<td>Casaret, David</td>
<td>43</td>
</tr>
<tr>
<td>Casey, Dympna</td>
<td>461, 462</td>
</tr>
<tr>
<td>Castellano, Maddalena</td>
<td>255</td>
</tr>
<tr>
<td>Cattaneo, Daniela</td>
<td>362</td>
</tr>
<tr>
<td>Caust-Ellenbogen, Melissa</td>
<td>40</td>
</tr>
<tr>
<td>Cawley, Declan</td>
<td>210</td>
</tr>
<tr>
<td>Cazorata, Gonzalez Rosa</td>
<td>473</td>
</tr>
<tr>
<td>Centeno, Carlos</td>
<td>144, 442, 497</td>
</tr>
<tr>
<td>Chacko, Ray</td>
<td>66, 230</td>
</tr>
<tr>
<td>Chambaeere, Kenneth</td>
<td>488</td>
</tr>
<tr>
<td>Chan, Raphael</td>
<td>433</td>
</tr>
<tr>
<td>Chapman, Alice</td>
<td>464</td>
</tr>
<tr>
<td>Chatwin, John</td>
<td>458</td>
</tr>
<tr>
<td>Chauhan, Alpa</td>
<td>327</td>
</tr>
<tr>
<td>Cheyn, Nathan</td>
<td>50</td>
</tr>
<tr>
<td>Chizacwyska, Lena</td>
<td>85</td>
</tr>
<tr>
<td>Chochinov, Harvey</td>
<td>27</td>
</tr>
<tr>
<td>Cholver-Gonzalez, Antonio</td>
<td>451</td>
</tr>
<tr>
<td>Christakis, Nicholas</td>
<td>244</td>
</tr>
<tr>
<td>Christrup, Lona</td>
<td>411</td>
</tr>
<tr>
<td>Chybiicki, Miroslaw</td>
<td>228, 476</td>
</tr>
<tr>
<td>Cia, Ramos Rafael</td>
<td>153</td>
</tr>
<tr>
<td>Cislaghi, Gianluigi</td>
<td>427</td>
</tr>
<tr>
<td>Clark, David</td>
<td>26, 88, 486</td>
</tr>
</tbody>
</table>

Clayton, Josephine 230
Clemens, Katri Elina 195, 196, 197, 258
Clifford, Margaret 331
Closs, Jose 458
Closs, Susan 342
Cochrane, Barbara 168, 192, 289
Colding, Jan 210
Codorniu, Núria 453
Codorniu Zamora, Nuria 468
Cohen, Joachim 497
Cohen-Bearak, Adena 142
Coles, Bernadette 441
Colleran, Mirian 428
Collins, Karen 188
Colvin, Lesley 86, 137, 266, 288, 426
Connolly, Michael 422
Connors, Alison 85
Conyard, Elaine 276
Corehon, Silvia 382
Corcoran, Ged 139
Corti, Oscar 252
Cormier, Janice M. 171
Correas, Sánchez 201
Corson, Marion 319
Cort, Elizabeth 131
Costa, Luis 286
Costantini, Massimo 52, 60, 152, 497
Costello, Catherine 335
Cote, Christina 156
Cotren, Brenda 347
Couilliot, Marie 459, 490
Coulter, Simon 395
Courneya, Kerry 32, 400
Cox, Karen 224
Coyle, Nessa 370
Cranfield, Faith 276
Cristina, Paiterri 111
Crockett, Emanuelle 259
Cronin, Kathleen 332
Crosbie, Brian 373
Crul, Ben 217, 218, 315
Csikai, Ellen 383
Cubbit, Alison 494
Cuervo, Pinna Miguel Ángel 201, 497
Cullen, Clara 64
Cumings, Greta 85, 493
Cunningham, Joan 352
Currow, David 95
Curry, Eardie 191
Davis, Raylene 110
Dah, Olav 344, 345, 346
Dalal, Shalini 396
Dale, Jeremy 311
Daneault, Serge 355, 356
Daniels, Florrice 19
Darees, Veronique 459
Davis, Millar 30, 350, 354, 389, 393, 409, 432, 449
De Boer, Marike E. 5
De Conno, Franco 252, 423
De Gendi, Cindy 87
De Keyser, Els 307
De Korte, Ria 292
De Korte-Verhoef, M.C. (Ria) 294
De Lima, Liliana 64
De Luca, Anna 252
De Maesschalck, Lieven 374
De Vlieger, Martine 454
Deboose, Patrick 219
Deerenberg, Ingeborg 77
Dees, Marianne 79
Degner, Lesley 134
Del Fabbro, Egídio 397
Delhaye, Gerard 490
Deliens, Luc 429
Dempsey, Steven 17, 18, 25, 75, 87, 103, 133, 205, 212, 219, 220, 227, 233, 299, 307, 364, 469, 488, 489
Demeneures, Peter 238, 285
Derycke, N 367, 463
Dickman, Andrew 253
Dickson, Rumona 48
Dietrich, Jessica 246
Diniz, Natalya 339
Ding, Hong 433
Dinges, Stefan 368
Dion, Dominique 311
Doodes, Nigel 211
Domenis, Franziska 410
Donaldson, Alison 492
Donker, Gé 205
Donnelly, Sinead 68, 208
Donohoh, Paul 121, 420
Donohoe, Paul 353, 443
Donnell, Julie 302, 467
Dop, Sanja 493
Dorn, Julian 359
Dorik, Miran 85
Du, Quinling 246
Ducloux, Dominique 463
Duclos, Dominique 312
Dulguerov, Pavel 278
Durham, Margaret 259
Dwyer, Alice 16
Duque Granado, Antonio 153
Dykes, Rose-Marie 190, 333
Dronen, Joanne 190, 333
Du, Quing 246
Duclos, Dominique 463
Dürr, Tom 312
Dulguerov, Pavel 278
Duncan, Siobhan 86
Dunham, Margaret 259
Dunne, Eileen 144
Durrell, John 116
Duffy, John 205
Echteld, Michael 483
Edmonds, Polly 121, 420, 474
Edwards, Annette 475
Eeijing, Jan A. 5
Eisenblätt, Jorge Hugo 126
El Clou, Bishar 126
El Khoury, Bishar 126
Eli, James 230
Eliassen, Frank 205
Elkins, Michael 483, 502
Ellert, Ottmar 126
Elling, John 205
Ellis, Jacqueline 359
Els, Pauwels 238, 285
Elayyis, Ahmed 191
Elseviers, Monique 454
Elshoven, Maarten 336, 337, 338
Elsner, Frank 6, 369, 407, 504
Elswert, Felix 244
Ellmers, Helen 253
Encinas, Martínez Paloma 481, 500
Ercolano, Philippe 459
Escher, Monica 260
Espinari, Victoria 358
Espínosa-Rojas, Jose 321
Espolito Desbaillet, Yolanda 110
Esteve, Zarazaga Rosa 473
Estafan, Basasam 30
Eto, Hiroshi 138
Evans, Alison 447
Ewy, Ann 338
Esward, Hermann 398
Exposito, Hernández José 153
Eychmüller, Steffen 410
Fainsinger, Robin 4, 85, 102, 147, 158, 265, 485, 491
Faiq, Marwan 126
Fatigoni, Sonia 49
Fayyaz, Pawan 47, 74, 155
Fazezak, Belinda 483
Fears, Kenneth 13
Fenn, Andrew 286
Finnegan, Clare 139
Fisher, John 10
Finnlay, Ilora 313, 363
Fisn, Andrew 286
Finn, Andrew 286
Finnegan, Clare 139
Fisher, Kim 158
Fladov, Torill 189
Fleetwood-Walker, Susan 426
Flores, Pérez Luis Alberto 497
Foley, Kathleen 94
Fomina, Miguel 358
Forbes, Karen 61, 215, 271
Forsythe, Carla 255
Forrest, Sarah 89, 306
Foster, Michaela 410
Foster, Claire 62
Fowell, Andrew 101
Francesca, Martini 111
Francke, Anneke 103
Freiberg von Hornstein, Wilhelm 334
Friedrichsdorf, Stefan J. 9, 297
Froger, Kathrin 126
Froggatt, Katherine 214, 493
Fuentes de la Rosa, Ma Angeles Martin 386
Fyllingen, Even Hovig 46, 100
Gabriel, Maren 120
Gall, Luigi 280
Gallo, Gloria 120
Gambles, Maureen 336, 337, 338
<table>
<thead>
<tr>
<th>Name</th>
<th>Page Numbers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hall, Emma</td>
<td>16</td>
</tr>
<tr>
<td>Hall, Pippa</td>
<td>317</td>
</tr>
<tr>
<td>Jack, Barbara</td>
<td>48, 338</td>
</tr>
<tr>
<td>Jackson, Barbara</td>
<td>375</td>
</tr>
<tr>
<td>James, Sarah</td>
<td>381</td>
</tr>
<tr>
<td>Jansen, Wim</td>
<td>304</td>
</tr>
<tr>
<td>Jenks, Karen</td>
<td>121, 420</td>
</tr>
<tr>
<td>Jepsersen, Bodil Abild</td>
<td>222</td>
</tr>
<tr>
<td>Jimenez, Ana</td>
<td>351</td>
</tr>
<tr>
<td>Jimenez, Laura</td>
<td>175, 176, 177</td>
</tr>
<tr>
<td>Joel, Simon</td>
<td>81</td>
</tr>
<tr>
<td>Johansson, Hans</td>
<td>261</td>
</tr>
<tr>
<td>Johnsen, Anna Thit</td>
<td>162</td>
</tr>
<tr>
<td>Johnson, Miriam</td>
<td>441</td>
</tr>
<tr>
<td>Johnston, Bridget</td>
<td>223</td>
</tr>
<tr>
<td>Johnstone, Rosalynde</td>
<td>342</td>
</tr>
<tr>
<td>Jon, Lágorde</td>
<td>47, 100, 106,108, 146, 175, 160, 308, 477, 478</td>
</tr>
<tr>
<td>Jonak, Camila</td>
<td>213, 228</td>
</tr>
<tr>
<td>Jones, Amanda</td>
<td>125</td>
</tr>
<tr>
<td>Jones, Louise</td>
<td>70</td>
</tr>
<tr>
<td>Jonker, Cees</td>
<td>5</td>
</tr>
<tr>
<td>Junek, Uwe</td>
<td>135, 264</td>
</tr>
<tr>
<td>Jurado Martin, Ma Ângeles</td>
<td>473</td>
</tr>
<tr>
<td>Jusuf, Rolf Ivan</td>
<td>471</td>
</tr>
<tr>
<td>Javero, Maria Teresa</td>
<td>351</td>
</tr>
<tr>
<td>Kaasa, Stein</td>
<td>1, 41, 46, 47, 57, 83, 98, 100, 115, 117, 146, 155, 159, 160, 165, 181, 193, 262, 265, 308, 478, 504</td>
</tr>
<tr>
<td>Kaastel, Laure</td>
<td>445</td>
</tr>
<tr>
<td>Kaiser, Claudia</td>
<td>122</td>
</tr>
<tr>
<td>Kajebie, Sadia</td>
<td>353, 443</td>
</tr>
<tr>
<td>Kalso, Eija</td>
<td>263</td>
</tr>
<tr>
<td>Kan, Cees</td>
<td>185</td>
</tr>
<tr>
<td>Kapari, Marcia</td>
<td>131</td>
</tr>
<tr>
<td>Kapra, Junaid</td>
<td>495</td>
</tr>
<tr>
<td>Karazia, Matt</td>
<td>413</td>
</tr>
<tr>
<td>Karbach, Ute</td>
<td>122</td>
</tr>
<tr>
<td>Kars, M.C. (Marijke)</td>
<td>292</td>
</tr>
<tr>
<td>Kars, Marijke</td>
<td>294</td>
</tr>
<tr>
<td>Katsouda, Emmanuela</td>
<td>438</td>
</tr>
<tr>
<td>Kaur, Gaddi</td>
<td>156</td>
</tr>
<tr>
<td>Kay, Samantha</td>
<td>343</td>
</tr>
<tr>
<td>Kearney, Nora</td>
<td>223</td>
</tr>
<tr>
<td>Keating, Gráinne</td>
<td>276</td>
</tr>
<tr>
<td>Keenleyside, Georgina</td>
<td>163</td>
</tr>
<tr>
<td>Kehl, Karen</td>
<td>29, 385</td>
</tr>
<tr>
<td>Kelt, Sarah</td>
<td>33</td>
</tr>
<tr>
<td>Kennedy, Sheila</td>
<td>224</td>
</tr>
<tr>
<td>Kern, Martina</td>
<td>326</td>
</tr>
<tr>
<td>Khatiri, Ajeeet</td>
<td>338</td>
</tr>
<tr>
<td>Kierner, Katharina</td>
<td>145, 225, 316</td>
</tr>
<tr>
<td>King, Michael</td>
<td>70</td>
</tr>
<tr>
<td>King, Daniel</td>
<td>496</td>
</tr>
<tr>
<td>Kinzel, Christine</td>
<td>215</td>
</tr>
<tr>
<td>Author Name</td>
<td>Page Numbers</td>
</tr>
<tr>
<td>-------------</td>
<td>--------------</td>
</tr>
<tr>
<td>Sawkins, Nikki</td>
<td>377</td>
</tr>
<tr>
<td>Scarpi, Emanuela</td>
<td>111, 282, 283</td>
</tr>
<tr>
<td>Schemper, Michael</td>
<td>498</td>
</tr>
<tr>
<td>Schindler, Thomas</td>
<td>303</td>
</tr>
<tr>
<td>Schneider, Nicole Andrea</td>
<td>410</td>
</tr>
<tr>
<td>Schulz, Valerie</td>
<td>42</td>
</tr>
<tr>
<td>Schumann, Felix</td>
<td>466</td>
</tr>
<tr>
<td>Schwarze-Ehyewill, Michael</td>
<td>236, 241</td>
</tr>
<tr>
<td>Seemann, Heidemarie</td>
<td>498</td>
</tr>
<tr>
<td>Segura, Eduardo</td>
<td>403</td>
</tr>
<tr>
<td>Selles, Deborah</td>
<td>142</td>
</tr>
<tr>
<td>Selman, Lucy</td>
<td>178, 235</td>
</tr>
<tr>
<td>Sequesta, Ashika</td>
<td>129</td>
</tr>
<tr>
<td>Seyidova-Khoshknabi, Dilara</td>
<td>449</td>
</tr>
<tr>
<td>Seymour, Jane</td>
<td>224, 234, 373, 464</td>
</tr>
<tr>
<td>Sharif, S.</td>
<td>329</td>
</tr>
<tr>
<td>Sharma, Gunjan</td>
<td>156</td>
</tr>
<tr>
<td>Sharma, Manohar</td>
<td>139</td>
</tr>
<tr>
<td>Sharpe, Michael</td>
<td>65</td>
</tr>
<tr>
<td>Shea, Judy</td>
<td>43</td>
</tr>
<tr>
<td>Shelley-James, Tania</td>
<td>502</td>
</tr>
<tr>
<td>Shelley, Mike</td>
<td>441</td>
</tr>
<tr>
<td>Shepherd, Jonathan</td>
<td>306</td>
</tr>
<tr>
<td>Silvia, Oxana</td>
<td>251</td>
</tr>
<tr>
<td>Shipman, Cathy</td>
<td>89, 123, 306, 345</td>
</tr>
<tr>
<td>Sicotte, Claude</td>
<td>311</td>
</tr>
<tr>
<td>Siemionow, Vlodek</td>
<td>409</td>
</tr>
<tr>
<td>Sigurdardottir, Katrin Ruth</td>
<td>46</td>
</tr>
<tr>
<td>Sigurdardottir, Valgerdur</td>
<td>179, 180</td>
</tr>
<tr>
<td>Sigurdsson, Helgi</td>
<td>344, 345, 346</td>
</tr>
<tr>
<td>Simms, Victoria</td>
<td>471</td>
</tr>
<tr>
<td>Simon, Steffen</td>
<td>202, 203, 236, 421, 479, 503</td>
</tr>
<tr>
<td>Sjøgrim, Per</td>
<td>22</td>
</tr>
<tr>
<td>Skarstein, Arne</td>
<td>344, 345, 346</td>
</tr>
<tr>
<td>Skingle, Laura</td>
<td>90</td>
</tr>
<tr>
<td>Skorpen, Frank</td>
<td>3, 34, 83, 189</td>
</tr>
<tr>
<td>Slama, Ondrej</td>
<td>480</td>
</tr>
<tr>
<td>Slatkin, Neal</td>
<td>67</td>
</tr>
<tr>
<td>Smets, Tinne</td>
<td>307</td>
</tr>
<tr>
<td>Soler, Carmen</td>
<td>358</td>
</tr>
<tr>
<td>Solomon, Mildred</td>
<td>8, 142</td>
</tr>
<tr>
<td>Sorbye, Liv Wergeland</td>
<td>450</td>
</tr>
<tr>
<td>Soto-Cárdenas, María José</td>
<td>451</td>
</tr>
<tr>
<td>Speck, Peter</td>
<td>474</td>
</tr>
<tr>
<td>Speckens, Anne Marie</td>
<td>185</td>
</tr>
<tr>
<td>Spence, Carol</td>
<td>244</td>
</tr>
<tr>
<td>Spoldi, Eliso</td>
<td>114, 230</td>
</tr>
<tr>
<td>Spragens, Lynn</td>
<td>40</td>
</tr>
<tr>
<td>Sprangers, M.A.G.</td>
<td>134</td>
</tr>
<tr>
<td>Stark, Jeffrey</td>
<td>286</td>
</tr>
<tr>
<td>Steers, Julie</td>
<td>322</td>
</tr>
<tr>
<td>Stein, Andrew</td>
<td>124</td>
</tr>
<tr>
<td>Stellborn, Per</td>
<td>261</td>
</tr>
<tr>
<td>Stene, Guero Birgitte</td>
<td>181</td>
</tr>
<tr>
<td>Stevens, Anna-Marie</td>
<td>333</td>
</tr>
<tr>
<td>Stevens, Richard</td>
<td>148</td>
</tr>
<tr>
<td>Stevenson, James</td>
<td>48</td>
</tr>
<tr>
<td>Stiel, Stephanie</td>
<td>306</td>
</tr>
<tr>
<td>Stiles, Carla</td>
<td>42, 85, 102, 158, 485, 491</td>
</tr>
<tr>
<td>Stirling, Ian</td>
<td>323</td>
</tr>
<tr>
<td>Stjernswärd, Jan</td>
<td>59</td>
</tr>
<tr>
<td>Stoffel-Brink, Annemarie</td>
<td>233</td>
</tr>
<tr>
<td>Stone, Paddy</td>
<td>36</td>
</tr>
<tr>
<td>Strasser, Florian</td>
<td>14, 35</td>
</tr>
<tr>
<td>Stratford, Mandy</td>
<td>11</td>
</tr>
<tr>
<td>Strohscheer, Imke</td>
<td>204</td>
</tr>
<tr>
<td>Ström, Greta</td>
<td>261</td>
</tr>
<tr>
<td>Stromskag, Kjell Erik</td>
<td>324</td>
</tr>
<tr>
<td>Svrløkken, M.</td>
<td>480</td>
</tr>
<tr>
<td>Swart, Siebe</td>
<td>239</td>
</tr>
</tbody>
</table>

| T | van der Enck, Ineke | 455 |
| T | van der Wal, Gerrit | 77, 240 |
| T | van Dooren, Silvia | 184 |
| T | van Doorslaer, Onja | 428 |
| T | Van Ende, Stuy | 454 |
| T | van Heest, Florien | 455 |
| T | van Iersel, Trudie | 80, 109 |
| T | van Rijswijk, Eric | 185 |
| T | van Roon, A.M. | 272 |
| T | Van Vliet, Bart | 103 |
| T | van Weel, Chris | 79, 185 |
| T | van Zuylen, Lia | 239, 315 |
| T | vanden Berge, Paul | 307 |
| T | van der Mei, Anne | 240 |
| T | Vander Stichele, Robert | 299, 469 |
| T | Tzekos, Paris | 285 |
| T | Varghese, Mota | 201 |
| T | Vazlova, Ludmila | 251 |
| T | Vaisisht, Ninaj | 286 |
| T | Vassallo, Erasmo | 280 |
| T | Vaughan, Suzanne | 214 |
| T | Veerbeek, Laetitia | 239 |
| T | Vignoles, Ernesto | 143 |
| T | Verhagen, Stans | 217 |
| T | Vossen-Wellmann, Andrea | 241 |
| T | Vyvedenskaya, Elena | 251 |
| T | Vyzula, R. | 480 |

| W | Waldron, Dympna | 200, 355, 356, 435 |
| W | Walker, Jochen | 186 |
| W | Walley, John | 288 |
| W | Walsh, Declan | 30, 68, 82, 350, 354, 389, 393, 394, 409, 413, 432, 449 |
| W | Walsh, Sara | 375 |
| W | Walters, Simon | 188 |
| W | Walters, Stephen | 163 |
| W | Walton, Abi | 126 |
| W | Wamsler, Christine | 9, 297 |
| W | Wan, Hong | 426 |
| W | Wanklyn, Steven | 290 |
| W | Ward, Jason | 475 |
| W | Warmeheven, Franca | 185 |
| W | Waseley, David | 129 |
| W | Watson, Elisabet | 108 |
| W | Watana, Shion | 167 |
| W | Webster, Dave | 210 |
| W | Watson, Julie | 377 |
| W | Watson, Max | 33, 168, 395 |
| W | Watke, Herbert | 145, 225, 316 |
| W | Weaver, Lynda | 317 |
| W | Weber, Catherine | 110 |
| W | Weinberger, Klaus | 368, 388 |
| W | Wei, Gao | 7 |
| W | Wellman, Charles | 67 |
| W | Welsh, Ken | 81, 190 |
| W | Welshman, Annette | 150, 280 |
| W | Westinham, Sarah | 250 |
Wenk, Roberto 64  Wilson, Charlotte 325  Young, Amanda 242
Wergeland, Sørbye Liv 450  Wilson, George 67  Young, Brett 350
Werner, Beate 312  Winslow, Michelle 188  Young, Holly 16
Westerman, Marjan 240  Wirz, Stefan 456, 457  Young, Judy 381
Weyrerbacher, Amanda 281  Wissert, Michael 326  Young, Teresa 381, 492
Weyl, Ben Arush Myriam 295, 296  Wolfe, Joanne 9, 297  Yue, Guang 409
Wheeler, Mary 59  Wood, Justin 88
White, Clare 69, 104, 289  Worsae, Jespersen Torben 222
White, Patrick 89, 123, 300, 301, 306  Worth, Allison 89, 306
White, Suzanne 89, 123, 306  Wozniak, Slawomir 434
Wickings, Jan 131  Wright, David N M 62  Zecca, Ernesto 151, 257
Wiese, Christoph 241  Wright, Michael 26, 486  Zeppetella, Gianluigi 280
Wiffen, Phil J. 37  Zeppetella, Giovambattista 291
Wilcock, Andrew 126  Zerari, Nora 367
Wild, Deidre 214  Zemikow, Boris 9, 297
Wilkins, Edmund 250
Wilkinson, Kumaraja 290  Yang, Qi 409  Zhollikovits, Silke 482
Willems, Dick 418  Yasuda, Soito 138  Zejer, Niklas 498
Williams, EMI 20, 167  Yelle, Louise 311  Zucco, Furio 252
Williams, Rachael 70  Yennurajalingam, Seiram 66  Zulian, Gilbert 110, 232, 445
Williams, Susan 441  Yi, Patricia 358  Zuurmond, Wouter 233