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European Journal of Oncology Nursing seeks to provide a forum for the exchange of knowledge and experience through which nurses can address issues of importance in oncology. It aims to inform the practice on oncology nursing through the report of current and ongoing research and relevant developments in practice, policy and education. Nurses involved in the practice, education and research setting are located in a variety of different contexts and the journal aims to reflect both the richness and the diversity of contemporary oncology nursing. The Editorial Committee welcomes contributions from nurses (and other health care professionals) whose work includes practice, education or research in the field of oncology including prevention, early detection, care and treatment, rehabilitation and palliative care. *European Journal of Oncology Nursing* publishes original articles, research reports, critical research commentaries, short reports of research work in progress, literature reviews, reports on service developments, practice notes, book and media reviews, and a literature scan. It is the official journal of EONS, and seeks to address issues of importance to oncology nurses throughout Europe.

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Programme

Thursday 15 April 2010

- 08:00–10:00 Registration and poster set-up** Level 0
- 10:00–11:00 Plenary Session: Policy in the EU. Impact on oncology** World Forum Theatre, Level 0
Chair: Sultan Kav (TR)
- 10:00 Welcome address EONS
Speaker: Sultan Kav (TR)
- 10:05 Welcome address V&VN
Speaker: Marieke Schreuder-Cats (NL)
- 10:10 Where have all the nurses gone: workforce change a necessity?
Speaker: Sara Faithfull (UK)
- 10:30 EU health policy: cross-border controversies
Speaker: Petra Riemer-Hommel (Germany)
- 10:50 Questions and answers
- 11:00–11:30 Coffee Break** Exhibition area, Atlantic Room, Level –1
- 11:30–13:00 Scientific Symposium: Survivorship & late effects** World Forum Theatre, Level 0
Chair: Sophie Bunskoek (NL)
- 11:30 Overview of second malignancies and other late effects of cancer treatment
Speaker: Sophie Bunskoek (NL)
- 11:55 Impact of chemo- and endocrine therapy on cognitive function
Speaker: Jürg Bernhard (CH)
- 12:20 Treatment for cancer and managing future fertility
Speaker: Jane Denton (UK)
- 12:45 Questions and answers
- 11:30–13:00 Scientific Symposium: Lung cancer** Oceania Room, Level 0
Chair: Erik van Muilekom (NL)
- 11:30 Decision-making in the treatment of non-small cell lung cancer
Speaker: Rolf Stahel (CH)
- 11:55 Expect the unexpected: management of side-effects from new therapies in lung cancer
Speaker: Janice P. Richmond (IE)
- 12:20 Care beyond cure in lung cancer treatment
Speaker: Desiree van den Hurk (NL)
- 12:45 Questions and answers
- 11:30–13:00 Instructional Session: Targeted therapy** Europe I&II, Level 0
Coordinator: Anita Margulies (CH)
Expert: Christoph Renner (CH)
Expert: Clementine Molin (SE)
- 11:30–13:00 Instructional Session: Advanced clinical practice in nursing – can one size fit all?** South America Room, Level 0
Coordinator: Paul Trevatt (UK)
Expert: Kay Leonard (IE)
Expert: Saskia Claassen (NL)
- 13:00–14:00 Lunch and Poster viewing** Exhibition area, Atlantic Room, Level –1
- 14:00–15:30 Satellite Symposia (see p. xix for details)**
- 14:00–15:30 EONS–ONS Leadership Workshop – Part I. Clinical leadership: discover the leader within** Oceania Room, Level 0
Coordinator: Brenda Nevidjon (USA)
Coordinator: Sultan Kav (TR)
Speaker: Mary Gullatte (USA)
- 15:30–16:00 Coffee Break** Exhibition area, Atlantic Room, Level –1

- 16:00–17:30 Scientific Symposium: Neurological complications of cancer and cancer treatment** World Forum Theatre, Level 0
Chair: Robin Grant (UK)
- 16:00 Introduction
Speaker: Robin Grant (UK)
- 16:20 Survival, function and quality of life after malignant cord compression
Speaker: Pamela Levack (UK)
- 16:40 Epilepsy and brain tumours: a difficult balance
Speaker: Charles J. Vecht (NL)
- 17:00 Nerve changes and cancer drugs
Speaker: Dimitrios Papageorgiou (GR)
- 17:20 Questions and answers
- 16:00–17:30 Proffered Paper Session I – Innovation in practice & service development** Oceania Room, Level 0
Chair: Mary Wells (UK)
Chair: Rosemarie Jansen (NL)
- 16:00 International multidisciplinary consensus on important end of life decisions
Speaker: Natasja Raijmakers (NL)
- 16:15 The development of evidence-based guidelines for a nurse consultation in a breast unit: the perspectives of breast care nurses
Speaker: Elsie Decoene (B)
- 16:30 "Home sweet home?!" Ambulatory care in patients after high dose chemotherapy or stem cell transplantation: four year experience
Speaker: Arno Mank (NL)
- 16:45 Research nurses and levels of patient support
Speaker: Deborah Fenlon (UK)
- 17:00 Establishing and evaluating a nurse-led menopause clinic for women with breast cancer
Speaker: Alison Szwajcer (AU)
- 17:15 The effect of web-assisted education and consultancy on health belief, level of knowledge and participation in screenings with regard to prostate cancer screenings
Speaker: Sebahat Gozum (TR)
- 16:00–17:30 Instructional Session: Prostate cancer – the impact for man and relatives** Europe I&II, Level 0
Coordinator: Erik van Muilekom (NL)
Expert: Roderick C.N. van den Bergh (NL)
Expert: Lawrence Drudge-Coates (UK)
- 16:00–17:30 Instructional Session: New developments in radiotherapy** South America Room, Level 0
Coordinator: Sara Faithfull (UK)
Expert: Jens Overgaard (DK)
Expert: Lena Sharp (SE)
- 17:30–18:30 Welcome Reception** Exhibition area, Atlantic Room, Level –1
- 19:00 Conference Dinner**

Friday 16 April 2010

- 08:30–10:00 Scientific Symposium: Rehabilitation** World Forum Theatre, Level 0
Chair: Sophie Bunskoek (NL)
- 08:30 Onco-Move. Physical activity during chemotherapy
Speaker: Jeanette Hellendoorn (NL)
- 08:55 The development of an evidence-based physical self-management rehabilitation programme for cancer survivors
Speaker: Ellen Van Weert (NL)
- 09:20 Management of post-cancer fatigue
Speaker: Marlies Peters (NL)
- 09:45 Questions and answers
- 08:30–10:00 Instructional Session: Breast cancer** Oceania Room, Level 0
Coordinator: Sissi Grosfeld (NL)
Expert: Nadia Harbeck (DE)
Expert: Deborah Fenlon (UK)
- 08:30–10:00 Instructional Session: Cancer genetics** Europe I&II Room, Level 0
Coordinator: Anita Margulies (CH)
Expert: Paula Rieger (USA)
Expert: Anne Murphy (CH)
- 08:30–10:00 Instructional Session: Magnet hospitals** South America Room, Level 0
Coordinator: Erwin Humer (NL)
Expert: Alex Lindenburg (NL)
Expert: Brenda Nevidjon (USA)
- 10:00–10:30 Coffee Break** Exhibition area, Atlantic Room, Level –1
- 10:30–12:00 Satellite Symposia (see p. xix for details)**
- 10:30–12:00 EONS–ONS Leadership Workshop – Part II. Clinical empowerment: utilising your leadership skills** Oceania Room, Level 0
Coordinator: Brenda Nevidjon (USA)
Coordinator: Sultan Kav (TR)
Speaker: Mary Gullatte (USA)
Speaker: Sara Faithfull (UK)
- 12:00–13:00 Lunch and Poster viewing** Exhibition area, Atlantic Room, Level –1
- 13:00–13:45 Plenary Session: Award session and conference highlights** World Forum Theatre, Level 0
Chair: Sultan Kav (TR)
- 13:00 Introduction of the Novice Research Award 2010
Speaker: Sultan Kav (TR)
- 13:05 Novice Research Award Lecture: Creating and validating a patient-reported outcome instrument to assess symptom experience related to surgical wounds in women with vulvar neoplasms – a mixed methods study (WOMAN-PRO, 2009–2011)
Speaker: Beate Senn (CH)
- 13:20 Presentation of the EPE award: Helping patients to discuss expected sexual problems: 80 questions and answers about cancer and sexuality
Speaker: Corinne Eeltink (NL)
- 13:25 EONS highlights
Speaker: Sultan Kav (TR)
- 13:35 V&VN highlights
Speaker: Marieke Schreuder-Cats (NL)
- 13:45–15:15 Proffered Paper Session II – Psychosocial & symptom care** World forum Theatre, Level 0
Chair: Françoise Charnay-Sonnek (FR)
Chair: Bart J. Bosch (NL)
- 13:45 Loneliness in patients living with head and neck cancer: a cross-sectional study
Speaker: Mary Wells (UK)
- 14:00 Symptoms of patients with incurable head and neck cancer. Prevalence and impact on daily functioning
Speaker: Martine E. Lokker (NL)
- 14:15 Beliefs, opinions and knowledge about pain in 3 cancer services in Catalonia, Spain
Speaker: Raquel Lopez-Gil (ES)

- 14:30 Are questions regarding psychological distress or psychiatric disorders in patients with palliative care needs a reason to consult the palliative care team in a university medical centre in the Netherlands?
Speaker: Jenske Geerling (NL)
- 14:45 The Children's project 2009 – a rehabilitation programme with focus on letting the voices of the children be expressed, when the adults are in need of help and support in confronting their anxiety for their children's well-being?
Speaker: Helle Gert (DK)
- 15:00 Bereavement care for relatives by oncology nurses: contact by phone
Speaker: Marianne Vulperhorst (NL)
- 13:45–15:15 Scientific Symposium: Sexuality and cancer** Oceania Room, Level 0
Chair: Sara Faithfull (UK)
- 13:45 Sex when you are sick: reclaiming sexual health after cancer
Speaker: Anne Katz (CA)
- 14:10 "I feel like an old woman in a young body". Breast cancer and its impact on women's sexuality
Speaker: Daniela E.E. Hahn (NL)
- 14:35 Men and sexual health: physical dysfunction and psychological concerns
Speaker: Martin Steggal (UK)
- 15:00 Questions and answers
- 13:45–15:15 Workshop: Multi-professional working** Europe I Room, Level 0
Coordinator: Cath Taylor (UK)
Coordinator: Philip Larkin (IE)
- 13:45–15:15 Workshop [in Dutch]: Prescribing medicines. How to act in practice** Europe II Room, Level 0
Coordinator: Hanneke Jongkind (NL)
Coordinator: Anja Evers (NL)
- 13:45–15:15 Workshop: Interpreting Computerised Tomographic scans (CT scans)** South America Room, Level 0
Coordinator: Heleen Dekker (NL)
Coordinator: Sophie Bunskoek (NL)
- 15:15–15:45 Coffee Break** Exhibition area, Atlantic Room, Level –1
- 15:45–17:15 Scientific Symposium: Emotional distress** World Forum Theatre, Level 0
Chair: Daniel Kelly (UK)
- 15:45 Assessment of psychosocial distress screening measures and current developments
Speaker: Anja Mehnert (DE)
- 16:10 Nursing counselling after announcement of the diagnosis of cancer
Speaker: Suzanne Stroyberg (FR)
- 16:35 Taking care of ourselves
Speaker: Besti Üstun (TR)
- 17:00 Questions and answers
- 15:45–17:15 Scientific Symposium: Latest developments in upper GI cancers: focus on pancreas and oesophagus** Oceania Room, Level 0
Chair: Ulrika Östlund (SE)
- 15:45 The striking patterns of the epidemiology of oesophageal cancer
Speaker: Pernilla Lagergren (SE)
- 16:10 Latest developments in pancreatic cancer
Speaker: John Neoptolemos (UK)
- 16:35 Oesophageal cancer: diagnosis, treatment and follow-up
Speaker: Els M.L. Verschuur (NL)
- 17:00 Questions and answers
- 15:45–17:15 Workshop: Clinical trials – putting nursing in the frame** Europe I Room, Level 0
Coordinator: Jane Bryce (IT)
Coordinator: Paz Fernandez-Ortega (ES)
- 15:45–17:15 Workshop [in Dutch]: The nurse as case manager in oncology care** Europe II Room, Level 0
Coordinator: Marieke Schreuder-Cats (NL)
Coordinator: Jan Alex van Spil (NL)
- 15:45–17:15 Workshop: The ethics of futility in oncology settings** South America Room, Level 0
Coordinator: Anne Gallagher (UK)
Coordinator: Joan McCarthy (IE)
- 17:15–18:15 EONS General Assembly** Oceania Room, Level 0
- 17:15–18:15 V&VN General Assembly** South America Room, Level 0



Abstracts and learning outcomes

Plenary Session: Policy in the EU. Impact on oncology

A1

Where have all the nurses gone: workforce change a necessity?

S. Faithfull. *Faculty of Health and Medical Education, University of Surrey, Guildford, United Kingdom*

Future cancer health services have a difficult balancing act, firstly between increasing demands for cancer care and diversity of provision; secondly between the need to respond to peoples cancer health needs during therapy but also to promote health and provide rehabilitation for the increasing number of cancer survivors. There are a number of challenges we face in developing the nursing workforce, from the increasing age of the EU population, projected shortfall in number of nurses and the skills and knowledge required to manage health care provision.

Epidemiological projections within the EU suggest that the Increasing life span of the older population will impact on cancer incidence. It is predicted that between 2008 and 2060 the population of the EU aged over 65 is projected to increase by 66.9 million. Workforce issues in the support of informal carers, as well as nurses in general and community settings will need to be addressed if we are to maintain quality cancer care. A further effect of the changing demographic is that there will be fewer nurses entering the workforce, at present over half of the EU nursing workforce are over 45 years of age. As these staff approach retirement there needs to be sufficient numbers of younger recruits to replace them or an encouragement to entice staff to stay within the clinical setting. Oncology has focused on acute episodic care however these new developments require a shift to chronic illness models. Increasing complexity of treatment delivery requires broad skills from the nursing workforce and higher levels of proficiency and competence. Education is therefore fundamental in relation to increasing skills, mobility, keeping those nurses once trained and sustaining continuing professional development. Questions as to what this workforce will look like and what skills they will require to manage future cancer care are questions we should address at national as well as local level.

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- [1] Bleich MR, Hewlett PO, Santos SR, Rice RB, Cox KS, Richmeier S. (2003) Analysis of the nursing workforce crisis: a call to action. *Am J Nurs.* Apr;103(4):66–74.
- [2] Buchan J, Aiken L. (2008) Solving nursing shortages: a common priority. *J Clin Nurs.* 2008 Dec;17(24):3262–8.
- [3] EU Green paper on future healthcare workforce, plus country and organisational responses. Weblink: www.hec.europa.eu/health/ph_systems/docs
- [4] Palumbo MV, McIntosh B, Rambur B, Naud S. (2009) Retaining an aging nurse workforce: perceptions of human resource practices. *Nurs Econ.* Jul-Aug;27(4):221–7, 232.
- [5] Trevatt P, Leary A. A census of the advanced and specialist cancer nursing workforce in England, Northern Ireland and Wales. *Eur J Oncol Nurs.* 2009 Oct 3.

A2

EU health policy: cross-border controversies

P. Riemer-Hommel. *Fachbereich Pflege und Gesundheit Management Hochschule Für Technik und Wirtschaft, Saarbrücken, Germany*

While the provision of health care and the design of mechanisms within health care systems rests predominately with the individual European member states, there exists a distinct community, cross-border dimension in the provision of health care. For more than a decade, conflicts between supranational and national regulations and directives have characterized the health policy debate. The conflicts center on the access to care in European member countries and the reimbursement of care for patients utilizing cross-border care.

The rights of patients to utilize cross-border care in ambulatory settings has been established in a series of decisions put forward by the European Court of Justice over the years (C-158/96 and C-120/95 Kohl/Decker; C-157/99 Smits/Peerbooms; C-358/99 Müller-Fauré/van Riet). In the case C-372/04 (Watts) the right of patients to choose hospital care in a member country came into the focus of the European Court of Justice.

Aside from the case decisions made by the Court there is an ongoing debate on cross-border care in the EU initiated already in 2003 by the Commission in a reflection group on patient mobility. This culminated in 2008 in a proposal for a directive on the application of patients' rights in cross-border health care – which was accepted by parliament in April 2009 but as of today failed to be passed by the Council. Nevertheless, a clarification of patients' rights is needed as well as a clear discussion of the impact of mobility on governance and financial stability of the respective national systems. The paper summarizes the policy evolution regarding cross-border health care provision and analyses the obstacles that prevent the adoption of free movement in the treatment of in-patients.

Reference(s)

- [1] Bertinato, L. et al (2005): Policy brief cross-border health care in Europe – patient mobility; European Observatory on Health Systems and Policies.
- [2] Case C-372/04 The Queen, on the application of Yvonne Watts v Bedford Primary Care Trust and Secretary of State for Health.
- [3] COM (2008) 414 final: Proposal for a Directive of the European Parliament and of the Council on the application of patients' rights in cross-border healthcare.
- [4] Legido-Quiley, H., McKee, M., Walshe K. et al (2008): How can quality of health care be safeguarded across the European Union?, in: *BMJ* 336:920–3.
- [5] Sunol, R., Garel, P. and A Jacquerye (2009): Cross-border care and healthcare quality improvement in Europe: the MARQuIS research project, in: *Qual Saf Health Care* 18:i3-i7.

Scientific Symposium: Survivorship & late effects

A3

Overview of second malignancies and other late effects of cancer treatment

S. Bunskoek¹, A. Manenschijn², W. Tuinier¹, R. Altena¹.

¹University Medical Centre Groningen, Department of Medical Oncology, Groningen, The Netherlands; ²Isala Clinics, Department of Haematology, Zwolle, The Netherlands

Due to better diagnostic tools and improved treatments for cancer patients the number of cancer survivors is still increasing. For example currently 75% of the children with cancer survive their treatment. This increasing cure rate, however, is offset by the emergence of considerable long-term morbidity. Several studies of survivors of breast cancer, testicular cancer, Hodgkin's disease and child-hood cancer show a range of late effects of cancer treatment. These late effects of treatment include second malignant neoplasms (SMN), cardiovascular disease (CVD), pulmonary toxicity, decreased fertility, psychosocial disorders, and possibly cognitive impairment. These late effects result in higher mortality and morbidity with lower quality of life scores compared to the background population. Most of the late effects occur or shortly after therapy but also years to decades after treatment.

Traditionally follow up after end of cancer treatment is primarily focused on disease relapse. Little is known about the best way to organize follow-up, diagnose and prevent or treat late effects. There is a need for evidence-based guidelines on the follow-up of cancer survivors. Fuelled by the increasing number of cancer survivors several initiatives have been developed for follow-up of late effects.

During this lecture an overview of the different late effects will be given and two cancer survivorship issue initiatives on how to deal with late effects will be discussed.

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A4

Impact of chemo- and endocrine therapy on cognitive function

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Cognitive function is a prerequisite of functioning in daily life, particularly relevant for personal (e.g., memory) and role (e.g., learning) functioning. For patients, cognitive function is important for decision making and compliance with treatment

recommendations. Many cancer patients treated by chemo- and/or endocrine therapy complain about “chemobrain” in short- and long-term follow-up (i.e., “subjective” cognitive deficits). While some patients experience cognitive impairment prior to receiving chemotherapy, others indicate a worsening during chemotherapy and an improvement after completion of chemotherapy. The prevalence of such complaints vary greatly among and within tumor sites and treatments (e.g., for early breast cancer between 15 and 50%).

There is a zero to low correlation between “subjective” and “objective” cognitive function (i.e., formal neuropsychological testing). There is a substantial association between cognitive function, emotional distress and fatigue as perceived by the patients. The discrepancy between patients' perception and formal testing is unclear. Overall, the magnitude of objective cognitive impairment is modest in the majority of patients with such deficits, although it may considerably interfere with daily life.

Various mechanisms explaining cognitive side-effects are under investigation. For patients with breast cancer, this includes a direct central effect of chemotherapy, changes in the hormonal milieu (chemotherapy-induced menopause or use of endocrine therapy) and psychological factors associated with the cancer diagnosis. Prevention and treatment of cognitive side-effects are still experimental.

Nurses have an important role in recognizing and supporting patients with cognitive impairment. Patient complaints should prompt a psychological evaluation, given that cognitive impairment may be caused by and may cause psychological distress (e.g., anxiety), which can be addressed by a psychological intervention. Cognitive rehabilitation strategies are helpful for the patient, including validation of the experience, and sorting out primary from secondary deficits.

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A5

Treatment for cancer and managing future fertility

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Infertility is a common and potentially devastating side effect of treatment for cancer. Scientific and clinical advances in reproductive technologies present more options for the preservation of fertility at the time of treatment and assisted conception may be used for reduced fertility later in life. Sperm freezing is highly effective but appears to be underused by cancer patients which may be due to difficulty accessing the services. For women it is more complex. Embryo freezing can be used if the woman has a partner. Cryopreservation of ovarian tissue and oocytes (eggs) are new techniques with limited success so far and as yet are not widely available. Most people would choose to have their own genetic children but using donated gametes may be considered if other options fail or are not suitable. When cancer is diagnosed, understandably the immediate emphasis is on treatment and it

may be difficult to think beyond to life later on. Also the window of opportunity for preserving embryos or gametes is limited and a decision may have to be made about whether to delay starting treatment to take advantage of these options. Confronting mortality and the other complex emotional, social and practical issues associated with preserving fertility is not easy when dealing simultaneously with all the other aspects treatment for cancer. However with increased survival rates and the advances in fertility preservation and treatment, an integral part of cancer care should be discussing the implications for reproduction and informing patients of the options. Nurses, doctors and other members of the team should have the knowledge and skills to undertake this and support patients in their individual circumstances with the choices they make.

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Scientific Symposium: Lung cancer

A6

Decision-making in the treatment of non-small cell lung cancer

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Non-small cell lung cancer is a heterogeneous group of diseases. A large randomized study demonstrated non-inferiority of cisplatin/pemetrexed versus cisplatin/gemcitabine in unselected patients with advanced non-small cell lung cancer. The result of a predefined analysis according to histology demonstrating a superiority of cisplatin/pemetrexed in non-squamous cell carcinoma is changing our approach to the disease. In patients with adenocarcinoma the combination of the VEGF antibody bevacizumab with carboplatin and paclitaxel was associated with a better response and a two months survival advantage over chemotherapy alone. A second study using bevacizumab with cisplatin and gemcitabine confirmed a higher response rate with the combination, while no effect on survival was observed.

While platin-based combination chemotherapy remains the standard of care for patients with advanced disease, there is increasing evidence that first line therapy with an EGFR tyrosine kinase inhibitor has become a preferable option for patients whose tumors harbor activating EGFR mutations.

While until recently there was general agreement that first line chemotherapy of non-small cell lung cancer should be restricted to 4 or maximal 6 cycles of chemotherapy, this has currently come under question based on recent phase III studies examining the effect of pemetrexed or erlotinib maintenance therapy in patients not progressing after 4 cycles of platin-based combination therapy.

The role of adjuvant chemotherapy after complete resection of stage II and stage III non-small cell lung cancer has become firmly established. While there is consensus that adjuvant therapy

should include cisplatin, the optimal agent used in the combination remains to be defined.

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A7

Expect the unexpected: management of side-effects from new therapies in lung cancer

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The use of cytotoxic chemotherapy for curative intent of cancer or for the palliation of cancer symptoms has expanded significantly in the last decade. While this is true for all cancers, in regard to lung cancer, which often includes the experience of an incurable illness, an increase in treatment options appropriate for this disease has been to the benefit to patients. For individuals with small cell and non-small cell cancers, which are the two main types of lung neoplasms, in the adjuvant and palliative care setting, new therapies are available which provide health care professionals with options for care that should improve outcomes for patients. The new therapies for lung cancer include new single agent or combined cytotoxic systemic treatments, with or without radiotherapy but the major advances surround targeted therapies. The targeted therapies have a more specific action than cytotoxic drugs and consequently have a different side-effect profile and the toxicity associated with these treatments remains a burden for patients. Nurses have always had a significant role in the support and care of patients with lung cancer and this role will need to be maximised in the future with the use of evolving therapies. This important role must include an awareness of the potential for side effects and how these can be managed. Lung cancer can progress rapidly and has a poor survival rate, therefore extending the time patients live without their disease progressing and managing side effects are the ultimate treatment goals.

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A8**Care beyond cure in lung cancer treatment**

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Early stage non-small cell lung cancer (NSCLC) is treated by surgery and, if indicated, by chemotherapy or radiation therapy, as well as combinations of these treatments [1]. If discovered at an early stage, NSCLC is potentially curable by surgical resection. The long-term goals of lung cancer surgery include cancer control, survival and quality of life (QoL).

Lung cancer surgery causes deterioration of QoL, especially in the first 3 to 6 months after surgery [2,4,5]. Age, extent of surgery, preoperative lung function, pre-operative health status, access technique, and adjuvant treatment may all influence postoperative QoL [5,10]. Common symptoms after surgery include pain, dyspnoea and fatigue [2,4].

To indicate the need for support and managing symptoms during recovery we use the the Nijmegen Clinical Screening Instrument. This questionnaire measures eleven sub-domains of physiological functioning, symptoms, functional impairment and quality of life. It provides, in combination with the PatientProfileChart, a valid and detailed picture of patients' health status [3].

The PatientProfileChart can easily be used as screening instrument in routine care and serve as a guide in patient tailored treatment. Rehabilitation is aimed at improving both physiological functioning and quality of life and can be given on an in- or outpatient basis [6–9]. Therefore rehabilitation can be regarded as a component of 'care beyond cure' of patients who have undergone a lung resection.

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Instructional Session: Targeted therapy**A9****Instructional Session: Targeted therapy**

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An ever increasing number of targeted cancer drugs are in use in the clinical setting. Even more are now in preclinical stages and in all phases of clinical trials. These drugs are being employed in all treatment areas of oncology for numerous tumors. Any nurse caring for a cancer patient will be confronted at some point of time with one or more of these new drugs. Do we really understand what we are administering, are the expectations realistic and confirmed, what we are telling our patients?

Because these drugs are still relatively new, nurses are confronted with many questions posed by their patients and relatives. But, can we knowledgeably consult our patients about the actual drug which they are receiving? Can we answer questions such as "How long will I have to take this drug". Side effects dealing with skin toxicities are often presented and discussed in courses. Nurses have been made aware of this. This aspect of care will not be directly discussed in this session.

In this interactive workshop, participants will be offered an overview of the present classifications of targeted therapies as well as a better understanding about the rational use in clinical practice. Using case studies, special problems and questions will be addressed including a work-up of individual cases demonstrating and explaining the decision tree for the most optimal use of targeted therapies in the context of existing therapies.

Learning objectives: Through interactive participation in the "Targeted therapy" instructional session:

- Participants will be able to improve their knowledge about the classifications of the targeted therapies.
 - Participants will gain a greater understanding about the mechanisms of action through a review addressing the targets of specific molecules, pathways or cell structures.
 - Participants will be able to better recognize patients needs while being treated.
 - Participants will understand the challenges for both nurses and physicians while accompanying a patient receiving targeted therapies.
 - Will examine the nursing role and patient problems.
- Participants will be encouraged to actively interact in the session using worksheets, asking questions and stimulate an open discussion during and after the presentations.

Instructional Session: Advanced clinical practice in nursing – can one size fit all?**A10****Instructional Session: Advanced clinical practice in nursing – can one size fit all?**

P. Trevatt [Coordinator]¹, K. Leonard [Expert]², S. Claassen [Expert]³.
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The model of advanced clinical practice in cancer nursing has been the subject of intense debate over the last twenty years. While specialist nurses and advance nurse practitioners are often seen as central to improving the cancer patient experience and are (for the most part) much valued by fellow clinicians and colleagues

the definition and regulation of advanced clinical practice in cancer nursing are something that is not so easily agreed upon, for example, is there an agreed generic definition of what 'advanced' nursing is (or more importantly isn't), is specialist nursing and advanced nursing the same? Is advanced clinical practice driven by role title or by competencies? Can a cancer nurse practice as a specialist or an advanced practitioner without a Master's degree? Should such matters be driven by policy makers, educationalists or regulators? Can we achieve consensus and clarity across Europe as to both definition and regulation of advanced clinical practice in cancer nursing or should such matters be locally driven and owned by individual countries?

Is it impossible to think that one size might fit all?

This workshop will focus on definitions, assessments and regulation of advanced clinical practice in nursing using literature and evidence from the speaker's countries. The workshop will encourage audience participation and sharing.

This workshop is designed for anyone working in or having an interest in advanced or specialist cancer nursing practice.

EONS–ONS Leadership Workshop – Part I: Clinical leadership: discover the leader within

A11

EONS–ONS Leadership Workshop – Part I: Clinical leadership: discover the leader within

B. Nevidjon [Coordinator]¹, S. Kav [Coordinator]², M. Gullatte [Speaker]³. ¹ONS President. Duke University School of Nursing, Durham, North Carolina, USA; ²EONS President. Baskent University, Department of Nursing and Health Services, Ankara, Turkey; ³Emory University Hospital and Winship Cancer Institute of Emory University, Atlanta, Georgia, USA

Oncology nurses in every setting are leaders whether in a titled management position or not. In line with the theme of the 7th biennial EONS conference, "Advancing Cancer Nursing," this two part workshop will help nurses develop and enhance their leadership skills. Each part of the workshop has unique content and is interactive. Participants can attend either or both parts of the workshop.

At the conclusion of Part 1 of the workshop, participants will be able to:

- Discuss characteristics of leaders using the "Five Practices of Exemplary Leadership."
- Identify their leadership values, strengths, and style.
- Define the inner strengths of leadership.
- Review seven effective leadership strategies.

Scientific Symposium: Neurological complications of cancer and cancer treatment

A12

Introduction

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Primary brain and spinal cord tumours account for 2% of all cancers. Unlike other cancers, they rarely spread out-with the central nervous system, but can seed to the cerebrospinal fluid in some cases. Management is complex, not only because of wide variety of tumour cell types and grades of malignancy, but also because the site and the fear of neurological complications due to treatment [1]. Advances in imaging and surgical techniques have reduced risks of post-operative complications. Local therapies such as BCNU chemotherapy wafers may be associated with complications of

raised intracranial pressure, seizures or infection [2]. Chemo-radiation with concomitant and adjuvant Temozolomide is the current standard of care for glioblastoma. This improves median survival by 2 months and 2 year survival is 25% [3]. Treatment may be associated with complications of acute radiation reaction when the tumour is large, an early delayed radiation reaction in about 30% occurring within 3 months of completion of radiation, often mimicking progression on MR imaging ("pseudo-progression") and late cognitive effects in long term survivors or radiation necrosis many years later [4]. The role of the neuro-oncology clinical nurse specialist is pivotal within the multidisciplinary team. Benign tumours of the pituitary region may require surgery +/- radiation and may lead to endocrine problems and blindness as a direct result or stroke or dementia as late effects. Intrinsic spinal cord tumours are generally incurable, although surgery, radiation and chemotherapy, may improve disability and extend survival. Late effects of radiation may cause early worsening related to demyelination of the spinal cord or vascular damage and atrophy as a late effect [5].

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A13

Survival, function and quality of life after malignant cord compression

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Reporting findings of the Scottish Cord Compression Study in which 319 patients with 324 episodes of cord compression [MRI confirmation] were interviewed at diagnosis, 1 month and 3 months thereafter where feasible.

The median survival was 59 days (95% confidence interval 43–75 days). Median performance status [KPS] at diagnosis was 50, indicating a need for considerable nursing and medical care. The place of care was dependent on mobility at diagnosis: patients walking were more likely to be at home, whereas those requiring assistance or who were unable to walk were more likely to be in institutional care ($p=0.019$). Of those unable to walk at diagnosis, 7% regained full mobility. Of those catheterised at diagnosis, 28% regained full bladder function. Of those interviewed one month after diagnosis 56/120 (47%) were in pain despite oncological treatment and 22/120 (18%) reported the pain as severe (visual analogue scale >7). The median quality of life (Schedule for Evaluation of Individualised Quality of Life) score was 72/100 and was higher for patients with a better performance status ($p=0.026$). A minority of patients (8%) screened positive for anxiety and depression using the Hospital Anxiety and Depression Score [HAD]. 200

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A14

Epilepsy and brain tumours: a difficult balance

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Epilepsy is common in brain tumours, and 30% to 70% of patients develop symptomatic epilepsy [1]. Apart from anti-tumour directed therapy including neurosurgery, radiation and often chemotherapy, most patients will need antiepileptic drugs (AEDs), adding to the burden of living with brain cancer.

In about one third of patients, the epilepsy is not or less sensitive to anti-epileptic drugs (AEDs). Over-expression of the ABC transporter family of proteins can facilitate or block the transport of substances like ions and proteins over the endothelial cell-membrane in the brain parenchyma and lead to drug-resistance [2]. Drug interactions between AEDs and anti-neoplastic agents may also lead to lesser control of either the epilepsy or of the brain tumour, or lead to toxic effects of one or both of the interacting agents. Higher activity of the P-450 enzyme metabolic pathway are often caused by the enzyme-inducing activity of the classic anticonvulsants phenobarbital, primidone, carbamazepine and phenytoin, which are labelled as enzyme-inducing anti-epileptic drugs (EIAEDs) [3]. For that reason, dose-regimens for schedules of chemotherapeutic agents are often different for concomitant EIAEDs and non-EIAEDS. Many chemotherapeutic agents, are also inducers of the P450-pathway and can diminish plasma levels of concomitantly prescribed AEDs with ensuing lesser control of seizures. Valproic acid is a broad-spectrum enzyme-inhibiting AED and can lead to both an increase in activity as well as in toxicity of a concomitantly prescribed drug. Newer AEDs like gabapentin, levetiracetam and pregabalin do not lead to interactions with other agents as they would not alter metabolic pathways [4].

In many patients with epilepsy and brain cancer a combination of two AEDs is required to control the seizures [5]. One effective regimen is a combination of levetiracetam and valproic acid, in a dose of 1000–1500 mg/day of each, which is usually tolerated well, despite previous surgery and radiation to the brain or other potential neurotoxic factors that may compromise the quality of life of the patient.

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A15

Nerve changes and cancer drugs

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Chemotherapy-induced peripheral neuropathy describes damage to the peripheral nervous system, the system that transmits information between the central nervous system and the rest of the body, caused by the administration of chemotherapy

agents. The chemotherapeutic agents most often associated with peripheral neuropathy are Vinca's alkaloids, cisplatin, docetaxel and paclitaxel. Patients receiving these agents face symptoms like such as numbness and tingling. This begins from the end of the fingers and the toes and then moves more centrally and takes the form of a glove.

Neurotoxicity influences the patient, not only bodily but also functionally, psychosocially and intellectually and at the same time it also influences the family. Nursing interventions aim to prevent the development of peripheral neuropathy, to delay the deterioration of preexisting neuropathy, to reduce the discomfort and the pain, to promote the safety of the patient and to maintain the ability of the patients to carry out daily life activities.

The nervous system has not been the focus of education or training for oncology nurses. Recent improvements in the management of other treatment-related toxicities have led to peripheral neuropathy becoming a dose-limiting toxicity of many chemotherapeutic agents. This recognition has made peripheral neuropathy an important component in the care of patients with cancer.

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Proffered Paper Session I – Innovation in practice & service development

A16

International multidisciplinary consensus on important end of life decisions

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Introduction: End of life decision-making can have a significant impact on patients and relatives as well as on the professional caregivers. For international research on end of life decision-making it is important to know what is meant by end of life decision making in the different countries. To gain insight on this topic, we studied what decisions nurses and physicians in different European countries consider to be important in care for patients at the end of life?

Materials and Methods: In 8 countries (Argentina, Germany, Italy, Netherlands, New Zealand, Slovenia, Sweden, Switzerland and UK) professional caregivers were asked which end of life decisions they considered to be important. In total 114 stakeholders responded, among them were 61 (53%) physicians and 41 (36%) nurses. In the questionnaire, an end-of-life decision was defined as 'a decision involving a person who is in the last days of life that has (may have) a significant impact on the quality, place and/or time of dying'. We used a qualitative approach for analysis.

Results: More than 800 different end of life decisions were mentioned. Both nurses and physicians, regardless of their country, most often mentioned decisions with regard to withdrawing and/or withholding of treatment, place of death, symptom

management. Physicians emphasized decisions on withdrawing and/or withholding of antitumor treatments even more than nurses, 72% and 46% respectively. Both groups also frequently mentioned decisions on aspects of information or communication: nurses emphasized issues related to informing the patient and relatives, while physicians emphasized the question of who has to decide. Nurses also emphasized social and relational issues, such as presence at the bedside of the dying patient.

Conclusion: An international consensus on which are the most important end of life decisions seems to be present. Nurses and physicians also agree on these end of life decisions, although a slightly different emphasis is present concerning the psychosocial and medical aspects of end of life decision making. This multidisciplinary agreement between nurses and physicians from different countries is an excellent starting-point for collaboration in international research on end of life decision-making.

A17

Development of evidence-based guidelines for a nurse consultation in a breast unit: the perspectives of breast care nurses

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Background: The objective of this project is to develop evidence-based guidelines for the organisation and content of a nurse consultation in a breast unit. The guidelines are meant for all breast care nurses (BCN) in Belgium and their significant others. In the literature there is evidence for the added value of working with specialist (breast) nurses and information about their role in practice. The development of these guidelines must offer the practice more detailed information about the content of the interventions of a BCN through the total clinical pathway of a patient with breast cancer.

Material and Methods: The project exists out of five mayor phases: (1) a literature study of the information- and psychosocial needs of breast cancer patients, (2) a qualitative study with BCN and patients about their experiences of the care, (3) developing the guidelines based on the literature and the results of the qualitative research and evaluating them by an expert group, (4) a monocentric implementation of the guidelines in a breast unit and (5) an evaluation of the outcomes based on interventions by the BCN following the new guidelines. Information about the perspectives of BCN about their role supporting a breast cancer patient was collected through five focus group interviews. A phenomenological approach was used. Participants were 30 BCN working 1 to 6 years in a breast unit. Three topics were explored: the role, the position and the competence of a BCN.

Results: Two main themes were identified: patient centred roles en organisation centred roles. In the first role themes such as assessing physical and psychosocial status of the patient, providing information, providing psychosocial support and being there for the family are explored. Having an important role as BCN in the total organisation of a breast unit was translated in themes as coordinating the entire care and acting as an important player in the multidisciplinary team.

Conclusions: In Belgium, the role of a BCN is not informed or implemented by evidence-based guidelines and there isn't a national education program for these specific (rather new) nurse roles. By this project the guidelines must provide information and support for the BCN how to organize a specialised nurse consultation at each important phase in the total clinical pathway of a patient with breast cancer. The guidelines will be flexible and acceptable for implementation in all breast units in Belgium.

A18

"Home sweet home?!" Ambulatory care in patients after high dose chemotherapy or stem cell transplantation: four year experience

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Introduction: There is a world-wide tendency to discharge oncology patients earlier or treat them on an outpatient basis. Traditionally, patients undergoing high-dose chemotherapy or autologous stem cell transplantation are hospitalized during the aplastic phase and are discharged from the hospital after bone marrow recovery. The motivation to change this policy in our hospital to early discharge and ambulatory care in the neutropenic phase originates from patient preference and logistic reasons such as better utilization of hospital beds. Patients were discharged after completion of chemotherapy or stem cell reinfusion and came to the hospital three times weekly for a check-up during their neutropenic phase. Both medical and nursing parameters were monitored. Furthermore, psychosocial aspects from the patients were monitored.

Material and Method: In a prospective study, data was collected during the period of ambulatory care. The occurrence of infection, complications and treatment were recorded. The experiences with the ambulatory care model have been addressed by a self-developed survey concerning the procedure, and feelings of security or anxiety to evaluate the ambulatory care model.

Results and Discussion: Since September 2005, 108 patients have been treated according to the ambulatory care model. Although still about 60% of the patients needed readmission, sometimes only for a few days, no life threatening situation has occurred. In total more than 70% of the day's patients could stay at home which they normally would spend in the hospital. The median admission time was reduced from 26 to 11 days. Doctors, nurses and patients are in general satisfied concerning the change from inpatient to outpatient treatment. Based on the experiences obtained thus far, improvements in procedures are being implemented. Most difficult part of the whole program were the logistic consequences.

Conclusion: This group of patients needed, even still a few years ago, protection from infection from outside by isolation. The ambulatory care started as a project but is now a common part of the treatment. The overall results showed this kind of treatment is safe and feasible for the hospital and the individual patients. At present plans are being developed to set up nursing consultation in close collaboration with the outpatient treatment and all those involved because intensive support will be necessary.

A19

Research nurses and levels of patient support

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Introduction: The ZICE clinical trial is a randomised trial assessing two types of bisphosphonate treatments in breast cancer patients with bone metastases (n=1400). When comparing these two treatments, in addition to looking at the outcomes of the clinical trial (e.g. safety and side effects etc) it is important to consider the experiences of patients receiving either drug and the potential impact of a change of service delivery on patients and their families.

We explored the experiences of patients receiving each treatment, as well as their perspectives on preference for clinic or home delivery in a multicentre qualitative study. We found that a significant emergent theme was in relation to the support given by patients' research nurses and we discuss these results here.

Material and Method: The most appropriate methodology for gathering rich empirical data and understanding the experience from the perspective of patients is a qualitative one and therefore research interviews were conducted with the patient groups (n = 42).

Participants underwent one semi-structured interview which normally lasted between 30 minutes and 1 hour. Interviews covered experiences and understanding of bisphosphonate treatment, the experience of the delivery mechanisms (iv or oral), side effects and benefits, and quality of life issues.

The interviews were audio taped and transcribed verbatim. The research team then systematically analysed the transcripts for consistent themes. The theoretical framework used is Interpretative Phenomenological Analysis (IPA). This approach, developed within psychology and deriving from phenomenology and symbolic interactionism, is increasingly used to address healthcare and quality of life research topics. The aim of IPA is to explore how participants make sense of their experiences and allows them to raise issues that most concern each individual.

Results and Discussion: On the whole, patients had strong relationships with their research nurses and talked of them in highly positive terms. From what patients reported, it would appear that some research nurses are providing full supportive care to patients by monitoring and providing interventions for their clinical and psychosocial concerns.

However, due to the multicentre nature of the project, it was possible to identify that this was not a consistent approach with other areas performing what appeared to be a far more limited support role, focussing on clinical trial assessments only.

Conclusion: It is known that one of the advantages of entering a clinical trial, for patients, is the increased level of patient support. For those patients with poor diagnoses, this may be particularly relevant and to ensure consistency and best practice, it may be worthwhile to revisit the core competencies or approaches that are required for the role according to patient group.

A20

Establishing and evaluating a nurse-led menopause clinic for women with breast cancer

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Introduction: Women can experience menopausal symptoms after breast cancer for a number of different reasons such as treatments involving chemotherapy, hormonal therapy, the cessation of hormone replacement therapy and stress. Often these symptoms may be managed in an 'ad hoc' way depending whom the woman talks to about her symptoms.

Material and Method: A nurse led menopause and breast cancer clinic was established for women who have had breast cancer and were experiencing menopausal symptoms. The women completed a menopause symptom scale and then their symptoms were assessed, different strategies to manage them were discussed and written information provided in a supportive environment. A nurse led clinic for women with menopausal symptoms where consistent information can be tailored to the individual women could be one way to address these issues.

Results and Discussion: The average age of the women attending the clinic was 50, with a range of 38–70 years. The most common treatment received was a combination of chemotherapy, radiotherapy and hormonal treatment. Over a period of 24 weeks 26 women attended the clinic. The most common reasons for referral to the clinic was for the management of hot flushes and night sweats, followed by joint and muscle pain. The clinic was evaluated using a survey and the menopause symptom scale – these were sent to the women who had attended the clinic. There was a 57% response rate, with all of the women who attended reported it helpful attending the clinic, irrespective of whether their

menopausal symptoms improved, stayed the same or got worse. When asked if there had been any changes in the menopausal symptoms eight women reported that they had improved, five that they had stayed the same and one woman said that they had got worse.

Conclusion: It appears that a benefit of attending the clinic is to have someone listen to how the women are feeling and talk about the menopausal symptoms they are experiencing, without the women feeling there are other issues to talk about as there are during treatment or at follow up appointments with doctors. The women reported finding it helpful to find out more information about menopause and how to manage their symptoms and the different interventions that are available.

A21

The effect of web-assisted education and consultancy on health belief, level of knowledge and participation in screenings with regard to prostate cancer screenings

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Introduction: The recent advancements in technology have allowed the use of web space for health education and consultancy. Web assisted education may create awareness in individuals and affect their participation in prostate cancer screenings. To investigate the effect of web assisted education and consultancy on health belief, level of knowledge and participation in screening with regard to prostate cancer screenings.

Material and Method: This study was designed as a single-group pre-test – post-test quasi-experimental research. Study sampling includes 75 people over 40 years of age who work at two government institutions. Data were collected by individual information form, prostate symptom score form, screening participation form, health belief model scale for prostate cancer screenings, and information screening test for prostate cancer screenings. The participants were given a one-hour conference on prostate cancer and screenings, followed by a 6 months web-based education and consultancy. A customized desk calendar was given to each participant to remind them to participate in the screenings. After the intermediate data of the trial were collected, cell phone messages and participant-specific reminders were sent to participants to motivate them to participate in the screenings. Master data were collected before the trial and in month 3 and month 6 after the trial.

Results and Discussion: In the overall period of the research (6 months), website was accessed from 454 different computers and visited 3128 times. Within this period, 15 individuals included in the study were given consultancy. Participants used the website at a rate of 22.7% in the first 3 months and 39.7% in the second 3 months period. While the ratio of individuals who received prostate examination was 9.3% before the trial, this ratio increased to 19.1% at the end of the trial. Similarly, Prostate Specific Antigen (PSA) measurement rate increased from 6.6% to 31.4%. It was observed that the trials increased the participants' perception of sensitivity with regard to prostate cancer and screenings, and reduced their barrier perception. The trials did not provide any change in seriousness, motivation and benefit perception components and in the level of knowledge regarding prostate cancer screenings. In the follow up test, PSA measurement rates increased 65.06 times by website use, 1.26 times by each unit increase in motivation, and 0.86 by each unit decrease in barrier perception. Although it is not statistically significant, individuals with higher symptom scores participated more in the screenings. In the post-test, no factor was found to be effective on screenings.

Conclusion: Web assisted education and consultancy may change health beliefs regarding prostate cancer screenings, and therefore, increase participation in screenings and contribute to early diagnosis.

Instructional Session: Prostate cancer – the impact for man and relatives

A22

Instructional Session: Controversies of prostate cancer screening and active surveillance for low risk prostate cancer – the impact for man and relatives

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Erik van Muilekom: Introduction in prostate cancer, new developments and trends prostate cancer treatment and coping of man and their relatives

Dr. Roderick van den Bergh: Controversies of prostate cancer screening and active surveillance, the impact for man and relatives

During this session, the following subjects will be covered:

- The rationale of screening for prostate cancer.
- Update of the results of the most important randomised studies on the impact of screening for prostate cancer on a population level.
- The impact of screening on the quality of life
- The rationale behind the strategy of active surveillance for low risk prostate cancer
- The impact of active surveillance on the quality of life
- Considerations for daily urologic practice regarding screening and active surveillance

Session objectives: After attending this session, participants will be able to:

- Explain the pros and cons of screening for prostate cancer
- Compare the strategy of active surveillance with more radical treatments such as radical prostatectomy or radiation therapy.
- Point out the different aspects of screening and active surveillance that influence the quality of life
- Apply knowledge in daily urologic practice

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Lawrence Drudge-Coates: Post radiotherapy symptoms and management – including outcome data from studies etc.

Hormone therapy – physiology, side-effects and management (including gynaecomastia, hot flushes, fatigue and effects on bone health)

Session objectives: After attending this session, participants will be able to:

- Explain the effects of radiotherapy treatment and their incidence and management approaches
- Explain the physiological process of androgen production and the effects of hormone therapy in prostate cancer and management strategies and outcomes
- Greater awareness of current bone health strategies
- Apply this knowledge in daily urologic practice

Instructional Session: New developments in radiotherapy

A23

Instructional Session: New developments in radiotherapy

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The role of radiation therapy has changed over the last few years, not only in the technology for planning and delivery but also in the radiobiological understanding of how radiation works. New advances in molecular and tumour patho-physiology have led to radiation being used in combination with other cancer therapies to great effect. Delivery and support of patients undergoing radiation therapy is now a substantive part of patient management and follow up. This includes chemo-radiation, as well as the management of acute effects and longer term potential consequences. Radiation management is a specialist field but all cancer nurses should understand the principles. This instructional session builds on basic knowledge and provides insight into how new innovations will begin to impact on how radiotherapy is delivered and subsequent patient management. This instructional session will also identify how nurses can improve care for the patient in the management of skin and mucosal side effects of therapy, as well as in promoting health and providing supportive care.

Learning outcomes: following this session the participant will be able to:

- Outline new developments in the delivery of radiation therapy
- Explore clinical assessment, risk factors and treatment options for the management of radiation induced skin and mucosal side effects
- Reflect on the support provided within clinical practice for the implementation of developments in radiation delivery, adverse effects management and supportive care.

Scientific Symposium: Rehabilitation

A24

Onco-Move. Physical activity during chemotherapy

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Introduction: Cancer treatment often leads to long term fatigue and loss of physical condition. Recent studies show that physical and psychosocial interventions during cancer treatment positively influence fatigue, physical condition and quality of life. Since several years, in the Netherlands and Belgium, there is a combined exercise and educational program that starts three months after cancer treatment has finished. Recently the Comprehensive Cancer Centers also developed a physical activity intervention that starts during cancer treatment, Onco-Move.

Methods: Onco-Move is a home-based exercise program with the aim to be physically active 7 days a week, 30 minutes a day, on a low to moderate level. During treatment, breast and colon cancer patients were instructed and monitored by oncology nurses in four hospitals. Feasibility of Onco-Move was studied by questionnaires (patients and medical specialists) and interviews (oncology nurses).

Results: 48 patients (61% breast) were included in Onco-Move, 31 filled out the questionnaire. 77% liked being physical active during chemotherapy. 97% well understood the advice given by the oncology nurse. 93% was (partly) able to adhere to the exercise

recommendation. Oncology nurses (N=4) were able to integrate the instruction in their work routine and they believe that advising patients about physical activity should be a part of the usual care offered by oncology nurses. All medical specialists (N=4) believe patients should be able to adhere to the Onco-Move program and they believe that Onco-Move benefits the cancer patient.

Conclusion: Home-based exercise seems to be feasible during treatment of breast and colon cancer. Further research on the effectiveness has been initiated.

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A25

The development of an evidence-based physical self-management rehabilitation programme for cancer survivors

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Objectives: To develop an exercise programme for cancer patients in which content and delivery are based on the best available evidence. To identify the highest level of evidence available for the effects of exercise on four physical problems in cancer patients i.e. decreased aerobic capacity, decreased muscle strength, fatigue and impaired role physical functioning. To review the evidence available on the delivery of programmes.

Methods: Literature searches (Pubmed/Medline) on content looked for evidence on the efficacy of exercise on aerobic capacity, muscle strength, fatigue and impaired role physical functioning. Literature searches on delivery looked for self-management and/or self-efficacy enhancing techniques in relation to outcome, adherence and/or adoption of a physically active lifestyle.

Results: Evidence on the effectiveness of exercise in cancer patients varies and increases when moving from muscle strength (level of RCT), fatigue and physical role functioning to aerobic capacity (all level of meta-analyses). Effect sizes for aerobic capacity were moderate [1,2], while effect sizes for fatigue [2,3] and physical role functioning [1,4] were zero and/or small. There was some evidence (meta-analyses) that self-management programmes/self-efficacy enhancing programmes [5] have beneficial effects on health outcomes in a variety of chronic diseases, on the quality of life in cancer patients, and on exercise adherence and later exercise behaviour.

Conclusion: Evidence supports the positive effects of exercise on exercise capacity during and after completion of cancer treatment, but the effects for fatigue and role functioning are ambiguous. Evidence on the effectiveness of progressive exercise training on muscle strength is promising. Some evidence supports the positive effects of self-management programmes and self-efficacy enhancing programmes on health outcomes, exercise adherence and later

exercise behaviour. The resulting programme was developed using intervention mapping and will be presented.

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A26

Management of post-cancer fatigue

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Research has shown that approximately a quarter of cancer survivors suffer from post cancer fatigue. The cancer itself and cancer treatment are considered to be precipitating factors of fatigue. Long after the treatment period has ended, other factors seem to play an important role in the persistence of fatigue. These factors are:

- Insufficient coping with the experience of cancer and/or treatment
- Fear of disease recurrence
- Dysfunctional cognitions
- Dysregulation of sleep
- Dysregulation of activity
- Low social support and negative social interactions

At the Expert Centre Chronic Fatigue, department of the Radboud University Nijmegen Medical Centre a cognitive behaviour therapy (CBT) for post cancer fatigue has been developed. In a randomised controlled study this CBT, directed at the perpetuating factors has been tested and proved to be successful in reducing fatigue and functional impairment in cancer survivors. A follow-up study showed that positive results 4 years after the CBT still exist. Although this therapy was executed by psychologists, knowledge about the background and objectives of the various treatment modules can give nurses useful tools for daily practice. A nursing protocol for the management of post cancer fatigue will be presented in which the various modules will be discussed with examples of how nurses can apply the modules to their patients.

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Instructional Session: Breast cancer

A27

Instructional Session: Breast cancer

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The aims of this session are:

- To give a brief overview of latest gold standard treatments for breast cancer, including surgery, radiotherapy, hormone therapy and chemotherapy. (do we want to do all treatment modalities or shall we focus on just one?)
- To consider the needs of the person with breast cancer undergoing diagnosis and treatment
- To consider the role of the nurse in relation to people with breast cancer.

The role of the nurse working with people with breast cancer has been outlined by Hordern et al (2000) and an EONS curriculum developed based on these criteria. The dimensions of practice have been identified as:

- To be aware of the physical and psychosocial status of people affected by breast cancer, in relation to diagnosis, treatment and follow up throughout the disease trajectory; to assess, refer or intervene as appropriate.
- To provide education and information to people affected by breast cancer and their significant others.
- To act as an integral part of the multidisciplinary team and take a key role in co-ordinating care.

In this educational session we will summarise the latest treatments available for breast cancer and consider the implications for people affected by breast cancer. We will then consider the role of the nurse throughout Europe and how this can best be developed in order to enhance the lives of those affected by breast cancer.

Instructional Session: Cancer genetics

A28

Instructional Session: Cancer genetics

A. Margulies [Coordinator]¹, P. Trahan Rieger [Expert]², A. Murphy [Expert]³. ¹University Hospital Zurich, Division of Oncology, Zurich, Switzerland; ²Oncology Nursing Society (ONS), Pittsburgh, Pennsylvania, USA; ³University Hospital of Geneva (HUG), Division of Oncology, Geneva, Switzerland

The completion of the sequencing of the human genome in 2003 was a seminal event in modern times. The ultimate impact upon clinical practice is yet to be determined, but scientific discoveries coupled with this achievement are already making their way into clinical practice. How often do we hear from our medical colleagues, "Was there a chromosomal transformation?" "Was there a mutation present?" These questions and others demonstrate the importance of every nurse having a conceptual understanding of the basics of human genetics. This knowledge provides the foundation for new

therapies that will emerge and new ways to determine risk for disease.

As clinicians, we often wonder why patients that have similar characteristics in their cancer (e.g., stage, grade, and tissue type) can have such a different clinical course. Genome-based research is beginning to explain these mysteries and will enable medical researchers to develop more effective diagnostic tools, to better understand the health needs of people based on their individual genetic make-ups, and to design new treatments for disease.

Thus, the role of genetics in health care is starting to change profoundly and the first examples of the era of personalized medicine are on the horizon. Understanding the biological basis of cancer is important for clinicians to fully appreciate the impact this knowledge will have on the management of cancer.

Progress in the field of genetics is also illustrated by the possibility of gene testing allowing identifying cancer-predisposing genes in a certain number of families. Nurse involvement in obtaining a family history, constructing and interpreting a pedigree is relatively new, but mandatory.

Nurse involvement in obtaining a family history and constructing and interpreting a pedigree is relatively new, but mandatory to evaluate the risk in a family and determine if a genetic analysis can be proposed and the implications and limits of this new tool.

Where are the benefits, the problems, who is really at risk?

This session will introduce nurses to the field of genetics, genomics and its impact of oncology nursing practice. Case studies will illustrate specific areas of cancer care.

Learning Objectives: At the end of the workshop it is expected that participants will be able to:

- Describe the molecular process of cancer development.
- Relate the importance of understanding genetics and your clinical practice.
- Predict one way that knowledge of genetics may be used in cancer care in the future.
- Identify which patients are at risk of carrying a genetic predisposition.
- Consider motivations and expectations towards genetic testing.

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Instructional Session: Magnet hospitals

A29

Instructional Session: Magnet hospitals

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"There is not a shortage of nurses, there is a shortage of hospitals, nurses want to work in".

After the session, participants will be able to:

- Understand the essentials of Magnet Hospitals and apply or adapt the forces of magnetism in their hospitals
- Implement ideas extracted from the Magnet model into their own practice
- Identify how they are able to make a difference in their organisations

First of all, Brenda Nevidjon will give an introduction to the whole Magnet history and current state. She brings in personal experience as all 3 hospitals at Duke are Magnet.

Alex Lindenburg will relate on how the Magnet model can be used by other countries and describe what is happening in the Netherlands. A Dutch version of Magnet Hospitals started in August 2009 and the pilot has been launched in 6 hospitals.

Alex will try to set off a change in the culture of nurses all around the Netherlands. It is time for nurses to stand up for their profession and take pride in the fact that they are highly educated professionals. In the pilot “excellente zorg” (excellent care) the emphasis is on patient outcomes. After the session he wants nurses and managers to understand that in his opinion we have to contribute to the original Magnet essential idea: “start to invest in nurses and let nurses be able to take control”. Be proud to be a nurse.

It is his goal to start a wave that has the power to cover the Netherlands and beyond.

“The future in Nursing starts today, think big, start small, but just do it”.

“YES WE CAN!!!!”!

EONS–ONS Leadership Workshop – Part II: Clinical empowerment: utilising your leadership skills

A30

EONS–ONS Leadership Workshop – Part II: Clinical leadership empowerment: utilising your leadership skills

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Oncology nurses provide clinical management and leadership at all levels of clinical practice. This leadership is seen not only through patient case management but also in leading clinical teams. This second workshop will help nurses develop and enhance their leadership skills. This workshop is interactive and facilitators will encourage participants’ to draw upon their own experiences of working within and managing clinical teams. Participants can attend this workshop as a “stand alone” or attend both parts of the EONS–ONS leadership workshops.

At the conclusion of this workshop, participants will be able to:

- Discuss how to use one’s power and influence to initiate change.
- Identify opportunities for clinical and professional leadership.
- Explore the emerging complexity and clinical challenges of providing quality patient care delivery in a resource scarce environment
- Reflect on workforce and capacity planning in developing oncology nursing teams
- Discuss the role of clinical leadership within the context of social, cultural, and economic realities of today’s healthcare.

Plenary Session: Award session and conference highlights

A31

Novice Research Award Lecture:

Creating and validating a patient-reported outcome instrument to assess symptom experience related to surgical wounds in women with vulvar neoplasms – a mixed methods study (WOMAN-PRO, 2009–2011)

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Due to localization, stigmata, symptoms and high complication rate, wound management after surgery for women with vulvar neoplasms (WVN) is challenging. Wound related complications occur in 20–40% of women following surgery for vulvar intraepithelial neoplasia and vulvar cancer [1]. Furthermore, patients’ perspectives and symptom experience in WVN remain unmapped [2].

The aims of this PhD project are (a) to explore wound-related symptom experience of WVN, (b) to develop a self administered Wound assessment in vulvar Neoplasms – Patient Reported Outcome (WOMAN-PRO) instrument for monitoring the post-vulvar surgery symptom experience by WVN, (c) to test psychometric properties of the developed WOMAN-PRO instrument and (d) to examine the wound-related symptom experience of WVN.

A mixed methods design will be used with a sequential exploratory strategy. Initially a qualitative critical hermeneutic approach will be utilized to explore women’s symptom experience. A purposeful sample of 20 WVN will be recruited in the University Hospital Bern, Munich, and Freiburg. One to three month post surgery, problem-centered interviews with open-ended questions will be conducted. Content analysis, according to the seven-stage process of Diekelmann and Allen (1989) [3] will be employed to analyze the data. The WOMAN-PRO instrument will be developed based on the qualitative data and according to the U.S. Food and Drug Administration Center guidelines [4]. In the quantitative research phase a cross-sectional multi-center study will be conducted with women recruited from four Swiss (Zurich, Basel, Bern, St. Gallen) and four German University Hospitals (Munich, Freiburg, Berlin, Dusseldorf). A convenience sample will comprise 150 WVN, who complete the WOMAN-PRO instruments during the first 3 weeks following hospital discharge following vulvar surgery. The psychometric properties of the instrument (validity, reliability and responsiveness) will be examined based on the American Educational Research Association standards [5]. The prevalence for each of the measured symptoms and the self-reported distress associated with each symptom will be calculated.

A first exploration of main themes of symptom experience by collected qualitative interview data from WVN will be presented.

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A32**Presentation of the Excellence in Patient Education (EPE) Award:
Helping patients to discuss expected sexual problems:
80 questions and answers about cancer and sexuality**

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Sexual dysfunction is a frequent long-term side effect of cancer treatment. Cancer patients report that they seldom remember discussing sexual risks before treatment or treatment options for sexual dysfunction after treatment [1]. Although many oncology nurses are aware that patients and their partners can have sexual problems, most nurses do not provide information and support concerning sexual matters [2]. Furthermore, sexual difficulties are often not identified by the cancer care team, and most patients receive little or no assistance in dealing with the effects of cancer and its treatment on intimacy [3]. Patients and their partners want information regarding the effects of illness, treatment and disability on sexuality [4]. This (unfulfilled) information need and the attitude of the nurses towards sexuality have heightened the need for easy available information for patients and their partners.

We focus on all cancer treatments which may affect sexuality and fertility. With “80 questions and answers about Cancer and Sexuality” our aim is to make the information on sexuality accessible and understandable to patients with all types of cancer and their partners. This information may help the patient to discuss expected sexual problems with their healthcare provider, if necessary.

In the first draft of the booklet we have written down answers to 80 questions based on literature and multidisciplinary expert opinion of 26 health care providers.

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Proffered Paper Session II – Psychosocial & symptom care

A33**Loneliness in patients living with head and neck cancer: a cross-sectional study**

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Introduction: Over 100,000 people are diagnosed with head and neck cancer in Europe each year, and the incidence is rising. Patients with head and neck cancer are increasingly treated with combined modality therapy which can cause significant side effects, affecting many basic aspects of day to day life. Although survival is improving, patients living with head and neck cancer often experience complex symptoms, psychological distress and may withdraw from social interaction. Social support has been shown to be important for quality of life and cancer survival. There is now evidence to

suggest that *perceived* social isolation or loneliness is also associated with a range of adverse health outcomes, including cancer. The experience of cancer is often a lonely one, and it is possible that particular groups, such as those with head and neck cancer, may be particularly at risk.

Materials and Methods: This cross-sectional study aimed to explore loneliness, quality of life and socio-demographic factors in patients with head and neck cancer who had completed treatment between 6 months and 3 years previously. During a six month period, all patients attending routine follow up in one NHS Health Board in Scotland were invited to participate. Following informed consent, patients completed the UCLA loneliness questionnaire and the FACT-HN Quality of Life questionnaire. Socio-demographic details were also collected at this time. Data were entered into SPSS (v15) and analysed using descriptive and non-parametric statistics.

Results and Discussion: 69 patients completed questionnaires. 60% had moderate or high levels of loneliness. There was a strong inverse relationship between quality of life and loneliness levels. FACT-HN scores for social and functional wellbeing were well correlated with loneliness scores. Participants who were unemployed, had low incomes and little contact with family members were more lonely.

Conclusion: This preliminary study is the first to investigate loneliness in this patient group. Further research into the nature and impact of loneliness is needed, including longitudinal studies to establish any patterns in the timing and duration of loneliness at different stages in the cancer trajectory. Interventions to address social isolation are required, if we are to offset or reduce the loneliness of cancer.

A34**Symptoms of patients with incurable head and neck cancer. Prevalence and impact on daily functioning**

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Introduction: In the Netherlands 2400 patients are diagnosed annually with head and neck cancer. Of these patients approximately 30% becomes incurable at some point where they are confronted with different symptoms. Until now it is unclear which symptoms these patients are being confronted with and also how much impact these symptoms have on their daily functioning.

When disease progresses, the family carer speaks on the patients behalf in about half of all medical contacts. It is unclear if this is in agreement with the patients' situation. The aim of this study is to gain knowledge about (1) symptom prevalence in incurable head and neck cancer patients, (2) symptom impact on daily functioning of these patients, and (3) possible discrepancies between patients and family carers on both aspects.

Material and Method: Questionnaires were used to collect retrospective data about symptom prevalence from 124 patients. Symptom impact was described using questionnaires to collect prospective data from 24 patients and their family carers.

Results and Discussion: Patients reported an average of 14 symptoms, 10 somatic and 4 psychosocial. High prevalence symptoms were fatigue, pain, feeling weak, trouble taking a short walk outside of the house, and difficulty swallowing. Patients and their family carers differ significantly on symptom prevalence and symptom impact for a few symptoms. Dyspnea, change of voice, trouble taking a short walk outside of the house, anger and feeling weak were the symptoms patients rated as having the biggest symptom impact.

Conclusion: Patients with incurable head and neck cancer experience a great number of different symptoms. The information

acquired with this study can help connect care with symptoms that are present. It is important for a good care relationship to be aware of discrepancies between patient and family carers' ratings. Healthcare professionals should help patients and family carers in becoming aware.

A35

Beliefs, opinions and knowledge about pain in 3 cancer services in Catalonia, Spain

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Introduction: Pain control in cancer patients remains under-controlled. There are some factors that influence in it; the subjectivity of pain experience, the cultural components and the under-use of analgesia today is a challenge for nurses caring patients.

Treatment and care should always rely on the individual pain perception; therefore, must itself assess the effectiveness of care. Is for this reason that it is necessary to expand the knowledge about what patients know, feel and do about pain.

Main aim of this research was to get more knowledge on beliefs, values, feelings and opinions about pain expressed by cancer patients in 3 cancer units belonging to a comprehensive cancer centre, Institut Català d'Oncologia. ICO.

Methods: During 2008–2009. A descriptive cross-sectional study involved 360 patients diagnosed with cancer disease, attended at 3 cancer centres. Inclusion criteria did select all types of cancer tumours, excluding patients just starting treatment outpatient treatment. Data collection was conducted through a survey by a panel of cancer nurses. Variables collected were socio-demographic parameters, clinical, beliefs and values and their behaviours regarding analgesia and activities related to pain relieving. Data will be described with descriptive statistics and CI (95%). Analysis by statistic programme SPSS v14.0.

Results and Discussion: Over 55% of participants reported no pain or rarely pain experience before being diagnosed with cancer. In contrasts with participants who reported having pain since diagnosis which was close to 90%. Some patients 40% expressed having pain for long time even years which was assessed in a numerical scale between 5/10 and 10/10 (30%). Knowledge and perceptions on analgesia and pain drugs was also explored. Less than 50% of patients perceived themselves as well-informed by health professionals. Surprisingly, 30% of the patients considered that insufficient information was on pain and, therefore, to hold beliefs and values erroneous connection to this symptom.

Conclusion: Pain is still one of the most relevant symptoms to be considered in cancer and haematological diseases. Our patients still have important misconceptions on analgesia and pain killers, as do not get enough information by their health professionals. Nurses should explore their subjectivity and the way many patients react before pain and how they express pain and suffering. For this reason information given to the patient must be clear, appropriate to their situation and sufficient to make them available to get an active part of the symptom control, increasing adherence and responsibility on their process.

A36

Are questions regarding psychological distress or psychiatric disorders in patients with palliative care needs a reason to consult the palliative care team in a university medical centre in the Netherlands?

J. Geerling, A.K.L. Reyners, J.T.M. van Leeuwen, C.A. van Minnen, J.M. Gol. University Medical Centre, Palliative Care Team, Groningen, The Netherlands

Introduction: Within the University Medical Centre at Groningen, a multidisciplinary palliative care team was set up in 2006. Patients are seen on a consultation basis.

Previous studies in palliative care patients showed that anxiety and depressive disorders are prevalent but under-diagnosed.

The primary aim of this study was to investigate whether physicians and nurses are aware of psychological distress (PD) in their patients referred to the palliative care team. Secondary, the prevalence of psychiatric disorders (DSM-VI-TR) in patients with PD referred to the palliative care team at our hospital was investigated.

Method: A retrospective study of all referred patients from October 2006 till October 2008. All referred patients are included in this analysis.

Results: 170 patients are included in this analysis. In 34 patients PD was a reason for referral (34/170=20%). Of these 34 patients 3 were diagnosed with an anxiety or depressive disorder according to the DSM-VI-TR, 18 patients had coping problems or problems in the patient-physician relationship. No PD was found in 13 of the referred patients (13/34=38%). They were adapting to recently given bad news.

Of the 136 patients who were referred for other reasons, 26 patients (19%) showed PD at the intake of the palliative care consultation also. 13 Patients were already known with PD before referral, of which 2 had an anxiety or depressive disorder, whereas two other patients had another axis I disorder. They were already treated for this condition by another discipline. Our team diagnosed PD in 13 patients (13/136=D 10%). None of them had an anxiety or depressive disorder.

Overall, 47 patients (47/170=28%) were seen with PD, of whom 23 had problems with acceptance and coping. A problem in the patient-physician relationship was found in 12 patients. Undiagnosed psychiatric disorders were not found in our study population.

Conclusion: Nurses and physicians are aware of PD, but they do not have the skills to differentiate between PD and adaptation to bad news (38%). Diagnostics of anxiety and depressive disorders are rarely a reason for referral to our palliative care team. However, patients with coping problems and problems in the patient-physician relationship are frequently seen. Maybe physicians do not recognize anxiety and depressive disorders, or, if they consider it, patients are referred to another discipline. Although we are aware of anxiety and depressive disorders, our team might miss this diagnosis. Whether our palliative care team misses these diagnoses, will be investigated in a prospective study.

A37

The Children's project 2009 – a rehabilitation programme with focus on letting the voices of the children be expressed, when the adults are in need of help and support in confronting their anxiety for their children's well-being?

H. Gert. Roskilde Amtssygehus, Oncology Department, Roskilde, Denmark

Introduction: Practical experiences combined with the latest knowledge of cancer patients in rehabilitation, indicate that patients with children live a life influenced by anxiety and worries. Nurses experience that these patients have many questions on how to talk to their children about their cancer, and on how to protect them and create the best framework. This awareness is new and puts new demands in nursing skills in rehabilitation.

Material and Method: The purpose of this study was to encompass the patients' needs of knowledge regarding how to acknowledge the needs of the children and how to support them. Furthermore we wanted the adults to be aware on the possibilities they could establish in their family.

As a method we let the children's "own voices" be expressed creating a tapestry for the reflexions of the adults. We let the children tell about their experiences and incidents in families, school and among friends, how these experiences and incidents influenced them, and what they wished their parents would do. The project's seven phases: included teachers, educationalists, social workers, families and children on a weekend stay with lectures and conferences.

The objective and the funds used in the phases to inspire the children and let their voices be expressed was: Theatre, rap music, storytelling, speaks, teamwork in the family and a "cupboard for thoughts".

Results and Discussion: The patients indicated that they had had inspiration to acknowledge the needs of their children, and they had become conscious of the possibilities the families encompassed. The patients valued listening to the children's voices. By vocalising incidents and experiences the children gave their parents wise words to consider when they, the parents, were anxious and unsure as to whether they did the right things.

Conclusion: The project shown that families where the mother or father has a diagnosis of cancer, live in a daily setting, where the parents are anxious and nervous for their children's well-being. The project stated that the parents need help to listen to their children, to support them, and to create the best framework. It was evident, that the children have many wise words and reflections that may be of help for the adults in their efforts. It was also evident that there is no simple solution, and that the solutions must be found within the family with the possibilities it has. We need to take these conditions into consideration with rehabilitation, at the same time they must be taken into account in nursing development skills.

A38

Bereavement care for relatives by oncology nurses: contact by phone

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Introduction: The nursing team of the department of Medical Oncology of the University Medical Centre Utrecht in the Netherlands, experiences a gap in supportive care for relatives of patients who died on the ward. Relatives, repeatedly, visit the MO ward unexpectedly after the death of a loved one. In contrast with medical oncologists' there is no structural offer of bereavement support by nurses.

Method: An intervention for bereavement support is developed based on a literature search (Pubmed, Cinahl), and interviews in 3 different care settings in which bereavement support is integrated in usual care. Aim of the study: (1) What are the needs and expectations of relatives in bereavement support by nurses; (2) what should the support intervention consist of; (3) what skills do nurses need to carry out the intervention? Six months after implementation of the intervention, it is evaluated on the usability in daily practice for the nursing team.

Results: The study shows that many care settings don't provide structural bereavement support, while half of the relatives wish some kind of aftercare. Most relatives are satisfied with a single contact by phone to evaluate the period on the ward and death of the patient in the hospital. Relatives prefer bereavement follow-up after 2–6 weeks after the death of the patient. Identification of problematic grief is not possible with this kind of support. Basic communication skills developed in the education and daily practice of the oncology nurse are sufficient for bereavement support by

telephone when facilitated by a checklist with the content and process of the 'after-care' contact.

Results of the evaluation (response 83%); Nurses are very positive about the supportive care. They notice the appreciation of the family members for the extra attention. When needed, added information can be given. Assessment by 17 nurses: mark 7.9 (1 out of 10).

Conclusion: Telephone bereavement support by nurses turned out to be effective. Implementation has been successful. A checklist for communication seems to be an effective instrument. Outcome evaluation, e.g. satisfaction of the relatives with the support given, is under construction.

Scientific Symposium: Sexuality and cancer

A39

Sex when you are sick: reclaiming sexual health after cancer

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The diagnosis of cancer of any kind has a devastating effect on psychological and emotional well-being. Issues of mortality may be all consuming in the early stages after diagnosis however, with time most people with cancer do manage to return to dealing with normal life issues. One of these is the resumption of sexual functioning. Sexuality in the context of cancer must be viewed within the disease trajectory. A diagnosis precipitates a physical, psychological and emotional crisis. Cancer and the effects of treatments can cause symptoms that alter sexual functioning even though the cancer itself may not have a direct effect on sexual functioning. Sex, once a source of comfort, becomes a source of physical and emotional discomfort when associated with pain or lack of desire.

Using case studies and clinical vignettes, the presenter will highlight how the cancer trajectory (diagnosis, treatment and recovery) impacts sexuality and what therapeutic interventions are helpful when treating these patients.

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A40

"I feel like an old woman in a young body". Breast cancer and its impact on women's sexuality

D.E.E. Hahn. The Netherlands Cancer Institute – Antoni van Leeuwenhoek Hospital, Department of Pshychosocial Counselling, Amsterdam, The Netherlands

"If only THEY had prepared me for getting those terrible hot flashes and having no sexual desire at all", Anna (41 years) moans, experiencing the effects of premature menopause after breast cancer treatment. No, she does not want to bother her oncologist. But to whom should she address her questions then? Hopefully to oncology nurses.

Breast cancer and its treatment have an extensive influence on sexuality, intimacy, body image, fertility and sexual relationships. Sexual dysfunction may affect up to 90 % of women treated for breast cancer [1,2]. With improved cancer survival rates, it is becoming increasingly important to focus on quality of life issues throughout all stages of (breast)cancer treatment. Patients report that they seldom remember discussing risks of sexual dysfunction

prior to or after treatment. The multi-factorial nature of sexual dysfunction often makes it difficult to explore such issues in the normal content of a routine medical or surgical follow-up visit [1]. As a consequence, sexual assessment and/or sexual counseling is not routinely provided in the oncology outpatient clinical setting. Time constraints, physician's discomfort to discuss sexual issues and a lack of sexuality training to deal with sexual problems after cancer may be crucial in not addressing sexual health concerns [1–3].

In this presentation sexual and intimacy problems of breast cancer patients will be described with reference to biologic, psychological, social, fertility-related and relational aspects. Oncology nurses role to converse sexual concerns, educate and counsel patients/partners on how to deal with sexual problems will be highlighted. Finally, proper referral-systems to the sexual health care-team will be outlined.

In the Netherlands Cancer Institute a special outpatient clinic for breast cancer and sexuality has been established to address breast cancer patients' unique sexual needs. Our three-step-managed care model will be described.

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A41

Men and sexual health: physical dysfunction and psychological concerns

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Erectile dysfunction (ED) is defined as the persistent inability to attain and maintain a penile erection adequate for sexual performance [1]. ED commonly has profound negative impact on quality of life in the patient (and his partner), resulting in poor self-image and self-confidence, and depression [2]. Current epidemiological evidence indicates that 8% of men in their forties report moderate or complete ED and this increases to 40% in men aged 60–69 years [3].

Historically causes of erectile dysfunction have been divided into 'organic' and 'psychogenic' factors although there is growing evidence linking erectile dysfunction and cardiovascular disease [4]. Risk factors for both diseases include obesity; diabetes mellitus; physical inactivity; hypertension; dyslipidaemia; and tobacco use [5] and ED is now thought to be a harbinger of cardiovascular disease in younger men (<60 years) [6,7]. Irrespective of cause, men who experience ED worry about it, which reduces confidence in their ability to engage in sexual activity and possibly leads to avoidance of sexual intimacy. A relationship without intimacy commonly deteriorates within 6 months or so, making recovery more difficult to achieve.

The mean time between onset of ED and cardiac event is approximately 3 years [8] although if risk factors are modified this becomes longer. Survey data indicates that less than 75% of men with ED actively seek treatment [9]. Barriers to discussing ED persist but whether this is related to lack of opportunity or by men's health-avoidance behaviours (i.e. hoping the condition would spontaneously improve; believing that ED was part of normal ageing; or not thinking it was serious) is unclear [10].

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Workshop: Multi-professional working

A42

Workshop: Multi-professional working

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Aim: To present a clinically relevant and practically orientated workshop on the complexity and challenges in multidisciplinary working

The workshop will examine four main areas:

1. What is multi-professional / multi-disciplinary working?
2. Defining the role of the multi-professional / multi-disciplinary team?
3. Measuring and evaluation of multi-professional / multi-disciplinary working
4. What happens when things go wrong? What can we do to put things right?

Learning Objectives: During this workshop, participants will:

- Be able to identify the value of multidisciplinary working for cancer care services
- Reflect multidisciplinary working from their own experience
- Develop new and innovative strategies for interpreting the challenges in multidisciplinary working
- Ground personal experiences of multidisciplinary working in the context of the existing evidence.
- Engage in experiential learning regarding the processes which underpin multidisciplinary working

From the perspective of contemporary research in the field (Catherine Taylor) and its practical application in the context of advanced cancer care (Phil Larkin), this workshop will enable participants to develop concrete strategies for the development and evaluation of best practice in multidisciplinary work.

Instructional method: Both coordinators will illustrate the session with examples from their clinical/research experience. Participants

will be encouraged to interact with the session with examples and case-studies from their own country.

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Workshop [in Dutch]: Prescribing medicines. How to act in practice

A43

Workshop [in Dutch]: Prescribing medicines. How to act in practice

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The Dutch Oncology Nursing Society (V&VN Oncologie) participates since 2007, together with the Association of Diabetes nurses and the Society of Lung nurses, in a pilot initiated by the ministry of healthcare to develop a ministerial order in which prescribing medicine by certain specialized groups of nurses is legalized.

Because prescribing medicine by nurses is new in the Netherlands, a choice was made to start with legalizing a group of fairly common medication to treat the signs and symptoms of cancer patients.

After 3 years we're finally reaching our goal. All the reason to discuss with you the following subjects during an interactive workshop:

- The background of the ministerial order.
- What's the content of the ministerial order?
- What do I have to do to be certified for prescribing medicine?
- What does it mean for my daily routine as an oncology nurse?
- What's the difference between the nurse specialist and me when it comes to prescribing medicine?
- And last but not least "The bears on the road show".

The board of the Dutch Oncology Nursing Society will use the outcomes of this workshop to determine her future policy and actions on this subject.

Workshop: Interpreting Computerised Tomographic scans (CT scans)

A44

Workshop: Interpreting Computerised Tomographic scans (CT scans)

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Workshop description: Multidetector CT (MDCT) is used in our clinical practice for diagnosis, staging, evaluation of the effectiveness of treatment, and follow-up in cancer patients. CT is the most used imaging modality in evaluating treatment efficiency in patients undergoing chemotherapy. CT of the thorax and abdomen is performed with administration of intravenous and oral contrast material. Intravenous contrast can increase the serum creatine level in patients with renal function impairment. MDCT principles will be discussed.

In many hospitals nowadays, the CT images (including report) are available in the electronic patient files. Systematic reading of the images is essential in order to find the lesions. We will discuss how

to find the major lesions on CT of thorax and abdomen during a routine survey.

The role of nurses has been in motion during recent years. More nurses now see out-patients independently and have a certain role in diagnostics, treatment and follow-up of cancer patients. It is becoming increasingly important for specialized nurses to have knowledge of imaging and to be able to interpret images, not only in order to fulfill a role during multidisciplinary meetings, but also to be able to explain the images when this is requested by patients. To be able to give a good explanation, you need to know the basic principles.

During this workshop the CT technique and the use of a routine survey while interpreting CT will be explained. There will be time for interactive training with CT images of different cases.

Workshop objectives: Upon completion of this workshop it is expected that participants will demonstrate:

- Knowledge of CT principles.
- Knowledge of CT reading.
- Correlation of the disease and the major findings at CT.

Workshop material: Participants will be provided with a package of handouts of all workshop material.

Instructional method: Teaching methods will include lectures, and practical image reading based on cases.

Reference(s)

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Scientific Symposium: Emotional distress

A45

Assessment of psychosocial distress screening measures and current developments

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Over the past thirty years psychosocial cancer care has become an integral part of cancer treatment in many countries around the world, a development that has been accompanied by research findings and meta-analyses showing that psychosocial care enhances the well-being and quality of life for cancer patients. Studies using screening measures have reported distress, anxiety and depression in on average one quarter to one third of patients following diagnosis and treatment. Recent data will be presented about psychological comorbidity and distress among cancer patients during acute and follow-up cancer care particularly considering cancer survivors as well as patients with advanced disease. Current developments will be reviewed with the focus on new screening measures assessing distress and supportive care needs such as the NCCN Distress Thermometer, the Patient Health Questionnaire or the Supportive Care Needs Survey. Particularly emphasis will be placed on the implementation and evaluation of distress screening programs in cancer centres and health care facilities.

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A46**Nursing counselling after announcement of the diagnosis of cancer**

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The French National Cancer Institute (INCa) made a cancer plan 2003–2007.

One of the goals of this cancer plan was to improve the quality of the cancer announcement. The national recommendations regarding the setting up of the announcement plan has drawn lessons from a one-year national experience with the French national Cancer league. This plan is now being brought into widespread use.

The announcement plan is based on consultation and coordination-phases

The plan begins with a medical consultation with the patient. This consultation is followed by a multidisciplinary meeting where staff is discussing and deciding the best and most appropriate treatment for the patient. A personalised healthcare programme is then given to the patient.

Next, the patient may choose to have a **nursing consultation**, where a nurse can listen, inform and support the patient and his/her family. The nurse can also inform the patient of all the relevant supportive care available and organise the access to this supportive care such as emotional & psychological support, social support, dietetic counsels, self-esteem beauty care, relaxation therapy etc.

The last phase in this plan is the relation and coordination between the hospital/clinic and the general practitioner (Cancer plan 2, 2009–2013).

The nursing consultation is a very private and confidential meeting between a nurse and the patient. It takes place in a separate room/office and we can spend up to 1 hour with the patient and his/her caregivers. During the consultation we inform about the treatment and its side-effects, its duration and the modality of the treatment. We will show the patient where the treatment will take place. We will listen and help the patient to clarify and phrase his/her questions and also organise the supportive care according to the patient.

As chemotherapy nurses caring for patients on a regular basis, we are in a unique position to understand and alleviate their anxiety; and the patients often feel more comfortable in asking us questions instead of the doctor. The mission of the nursing-consultation is to give patients a more comprehensive positive, coordinated and less intimidating/frightening approach to their healthcare.

Reference(s)

- [1] Ligue Nationale Contre Le Cancer. Livre blanc des premiers Etats généraux des maladies du cancer. Ed. Ramsay 1998.
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- [5] Circulaire du 22 février 2005 (DHOS/SDO/101) relative à l'organisation des soins en cancérologie.

A47**Taking care of ourselves**

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Psychological distress is a cluster of both emotional and cognitive symptoms like depression, anxiety, anger and cognitive impairment. The most important result of the distress in nurses is burnout [2]. It could be caused by personal or organizational reasons; therefore, its solution should be multidimensional, as well [1,5]. However, management of the organizational burnout is depended on personal strength. In this submission, only one dimension of the self improvement is discussed. An important way of self improvement is "to take care of ourselves", which means to discover the inner

self rather than outer appearance. "Taking care of yourself" means "awareness", which could be listed as follows:

1. Awareness of the outer world
2. Awareness of the inner world: Insight
3. Awareness of the inner worlds of other people: Empathy
4. Awareness of the universal integrity [4]

Awareness of these four dimensions protects people from stress sources. There are different methods helping people through the awareness of self beliefs and feelings [1]. The literature suggests a range of interventions to reduce stress in nursing. A recent review argues that cognitive behavioral interventions and relaxation/meditation strategies are effective in reducing personal stress level [3].

You can successfully manage to turn your life around by consciously challenging many of your thoughts and assumptions in order to change the way you think and feel about your situations. To be a good nurse, first you must be good to yourself.

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Scientific Symposium: Latest developments in upper GI cancers: focus on pancreas and oesophagus

A48**The striking patterns of the epidemiology of oesophageal cancer**

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Oesophageal cancer is the sixth most frequent cause of death from cancer worldwide. The incidence is ranked eighth place globally. There are two main histological types of oesophageal cancer, squamous cell carcinoma and adenocarcinoma. Squamous cell carcinoma is the most common type, with tobacco smoking and high alcohol intake as the main risk factors, especially in combination, in western populations [1]. During the last decades, the incidence of adenocarcinoma of the esophagus has, for uncertain reasons, increased rapidly in the western world, and in the early 1990s it surpassed the incidence of squamous cell carcinoma in some countries [2]. The strongest known risk factors for adenocarcinoma are gastroesophageal reflux, Barrett's esophagus and a high body mass [3,4]. Oesophageal cancer is predominantly occurring among males. The male predominance of about 3 to 1 in squamous cell carcinoma is entirely explained by the sex distribution of the main risk exposures, i.e. tobacco smoking and alcohol intake. The very strong 7 to 1 male predominance among patients with adenocarcinoma remains unexplained since the distribution of known risk factors is virtually similar between genders. Oesophageal cancer is an aggressive cancer, independent of histological type. The overall prognosis is poor with a 5-year survival of 5–15% in Europe. The long-term survival is highly dependent on the tumor stage. During recent decades the survival after a radical

oesophageal resection has improved, and in a population-based study the current 5-year population-based survival is 31% [5].

Reference(s)

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A49

Latest developments in pancreatic cancer

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Abstract not available at time of publication.

A50

Oesophageal cancer: diagnosis, treatment and follow-up

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The incidence of oesophageal cancer has risen remarkably over the last three decades in the Western world, because of a marked increase in the incidence of adenocarcinoma [1]. The prognosis of oesophageal cancer is poor with a 5-year survival of 10–15%. This is partly due to the fact that more than 50% of patients with oesophageal cancer have already inoperable disease at presentation. The most important risk factors for squamous cell carcinoma are smoking and alcohol intake. In addition, there is a direct association between gastro-oesophageal reflux disease and adenocarcinomas. Investigations in patients with suspected oesophageal cancer are focused on obtaining histologic diagnoses and staging of the disease. If a patient is fit enough to undergo surgery and the tumor is considered resectable without evidence of distant metastases, a surgical resection is the primary treatment for oesophageal cancer. After surgery, patients frequently experience physical and psychosocial problems such as eating problems, fatigue, fear for metastases and being dependent [2]. For patients with inoperable oesophageal cancer, palliative treatment, such as stent placement or brachytherapy, is indicated to relieve progressive dysphagia [3,4]. Although palliative chemotherapy is increasingly being used, there is no evidence that this treatment for metastatic oesophageal cancer improves survival. Health-related quality of life has become more important as an additional outcome parameter after curative as well as palliative treatment for oesophageal cancer to maintain and, ideally, improve quality of life in oesophageal cancer patients [5]. In addition, quality of life data may be able to monitor changes in functional health of patients over time, which may aid in advising these patients during follow-up [6].

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Workshop: Clinical trials – putting nursing in the frame

A51

Workshop: Clinical trials – putting nursing in the frame

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Workshop description: The specialised role of the Clinical Research Nurse (CRN) has evolved as the demand for new and more effective cancer therapies has resulted in extensive biomedical research. Progress made has been largely due to cancer clinical trials, and advances in biogenetic-molecular sciences as well as increased ethical/regulatory oversight are further increasing the complexity of the responsible conduct of research. Further taking into account a societal trend of better-informed health care consumers who are demanding access to the latest therapies, better control of symptoms, and partnership with the health care team, the CRN role has emerged as key for both the patient participating in research and for the scientific integrity of the research itself.

The CRN role is being practiced across Europe. Complex and diverse responsibilities of the CRN have been described in the literature and are consistent with that of an Advanced Practice Nurse, yet minimum competencies have not been established.

This workshop will review the advanced practice responsibilities of the Clinical Research Nurse as advocate, educator, coordinator, expert clinician and researcher. Successful models for increasing scientific partnerships and maximizing the opportunities for academic and cooperative group multisite nursing research will be discussed. The workshop will provide opportunity to consider how to promote the advanced practice role of the CRN, and to identify strategies for collaboration among European CRNs. A CRN role survey project will be evaluated and the possibility of establishing minimal advanced practice competencies of the CRN will be considered.

Workshop objectives: Upon completion of this workshop it is expected that participants will be able to:

- demonstrate knowledge of advanced practice role responsibilities of the Clinical Research Nurse (CRN)
- describe successful models of conducting nursing research within cancer cooperative and academic groups
- identify strategies for promoting the advanced practice role of the Clinical Research Nurse in Europe

Workshop material: A reading list, including journal articles and recommended text is provided below. Participants will also be provided with a package of handouts of all workshop material.

Instructional method: Teaching methods will include lecture, discussion and small group work.

Reference(s)

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Workshop [in Dutch]: The nurse as case manager in oncology care

A52

Workshop [in Dutch]: The nurse as case manager in oncology care

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Workshop: The ethics of futility in oncology settings

A53

Workshop: The ethics of futility in oncology settings

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Workshop description: The concept of futility is frequently referred to in relation to starting or stopping life prolonging medical treatments. The concept has evolved over the last three decades and, although it is regularly referred to in practice, it continues to be a contested concept with significant ethical implications.

In this workshop participants will have the opportunity to interrogate the concept of futility in relation to oncology practice. The ethical implications of futility will be critically examined and related ethical concepts and values (sanctity of life, autonomy, dignity, abandonment and moral distress) considered. Participants will analyse three cases from oncology practice using an ethical framework: an adult who refuses treatment she considers futile;

an adult who lacks capacity and whose family insist on the continuation of treatment professionals consider futile; and a child patient whose parents are refusing treatment professionals consider beneficial. In these cases, patients, professionals and family members hold different perspectives on the meaning and relevance of the concept of futility. Workshop participants will be encouraged to share practice experience and expertise in relation to the case analyses.

Workshop objectives: By the end of the workshop it is expected that participants will be able to:

- Demonstrate a critical understanding of the evolution and contested nature of the concept of 'futility' in relation to life prolonging medical treatments;
- Consider futility in relation to ethical concepts and values;
- Analyse cases from oncology settings using an ethical framework;
- Apply learning to their own practice

Workshop material: A reading list, articles and case summaries.

Instructional method: Introductory presentation, small group work focusing on three case studies and discussion.

Reference(s)

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Poster Presentations

Topic: New developments

P1

Swiss Oncology Nursing agenda: development and contribution to the National Cancer Plan 2010–2015

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Introduction: Due to demographic changes, cancer will remain one of the most challenging health care issues in the decades to come. Oncosuisse, the umbrella organisation integrating and coordinating activities against cancer in Switzerland, promotes a comprehensive National Cancer Programme (NCP) for 2010–2015. The Swiss NCP aims at providing the basis for political, managerial and research related health care decisions. The Swiss Oncology Nursing Society (SONS) in conjunction with the Oncology Nursing Research Society (ONRS) has developed and contributed a specific oncology nursing agenda to the NCP.

Material and Method: Covering the period of January 2005 and October 2009 and four databases, we reviewed studies in oncology nursing. Four reviewers independently selected the studies for inclusion and analysed them in terms of their implications to research, practice, management and education. Methodological quality was assessed and data extraction undertaken by two reviewers. Results were fed into a subsequent web-based survey (German and French). After pilot-testing the survey with nurses from different care settings we sent an invitation to participate to 820 members of the SONS and ONRS in December 2009. Members were asked to rate the importance of future strategies for

oncology nursing in Switzerland. Results were analyzed employing descriptive statistics. In a consensus meeting, results from the review as well as the survey were used to identify the main strategic themes for the oncology nursing agenda 2010–2015.

Results and Discussion: A total of 411 articles were identified in the four databases. Based on an abstract-based analysis, 143 articles were included and analysed on a full-text basis. Assessment of study quality showed a high percentage of articles of modest quality. Based on the analysis of evidence we defined main themes for the oncology nursing agenda: Communication and information provision, survivorship issues and rehabilitation, evidence-based needs and symptom assessment, evidence-based interventions to improve symptoms and self-management, nursing sensitive patient outcomes, advanced nursing practice, role of nurses in the multidisciplinary team, staffing and employment of new communication technologies. Lateral themes identified such as cultural issues, health disparities, life-span orientation, family issues are in line with the ONS' (Oncology Nursing Society) research agenda.

Conclusion: Analysis will be finalized in February 2010. The complete analysis and the oncology nursing agenda of the NCP will be presented at the EONS Spring Convention.

P2

Incident triggered clinical path HIPEC

P. Bottenberg, B. Van der Sande, Y. Heddes-te Winkel. *NKI-AvL, 6 etage, Amsterdam, Netherlands Antilles*

Introduction: At the Netherlands Cancer Institute (Antoni van Leeuwenhoek Hospital) the Hypotherm Intra Peritoneal Chemotherapy Procedure (HIPEC) is yearly carried out on about 50 patients. The protocolled nursing care is performed after consulting a physician who takes a decision based upon the observations of the nurse. This causes a considerable loss of time. Due to the complex nature of nursing care for HIPEC patients it is impossible to describe a clinical path in time. Though it is possible to classify the care into incidents and goals. An incident triggered clinical path developed by a multi disciplinary team describes a high qualitative and efficient care process for the HIPEC patient.

Material and Method: For the baseline measurement (10 arbitrary patients (N=10)) the following parameters were registered:

- hospital admittance time
- moment of removing wound and gastric drain
- days without oral intake

Subsequently the whole care process was described and divided into phases (pre- and post operative and discharge) plus goals to achieve.

Results and Discussion: April 2009 the incident triggered clinical path HIPEC was introduced on the ward. In September 2009 a preliminary evaluation was performed. 23 patients started with the incident triggered clinical path HIPEC. 2 Patients dropped out, 1 patient only had a debulking and 1 patient was inoperable.

Results of the preliminary evaluation:

Parameters	baseline (N=10)	Preliminary evaluation (N=21)
Hospital admittance time (days)	23.0 (range 13–64)	18.3 (range 4–75)
Wound drain (days)	4.7 (range 2–8)	5.6 (range 1–26)
Gastric drain (days)	8 (range 4–27)	8.1 (range 2–27)
Days with no oral intake	8 (range 4–27)	8.1 (range 2–27)

The admittance time is reduced by 4.7 days. No difference is observed in removing gastric and wound drain therefore the second phase is not responsible for the reduced admittance time. In the third phase of the incident clinical path HIPEC the nurse plans the moment of discharge with the patient. In this phase there is probably a time gain. The moment of increased oral intake is

inherent to the moment of plugging the gastric drain. Therefore this may not be a usable parameter.

Conclusion: Preliminary evaluation results look promising. In March 2010 a final evaluation will be conducted. Among nurses and other disciplines an evaluation will be done on the experience working with the incident clinical path HIPEC. The results will be available for the EONS spring convention April 2010.

P3

The development, implementation and evaluation of an palliative radiotherapy programme

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Introduction: Oncology patients receiving palliative radiotherapy experience major transitions. These patients are currently offered shortened outpatient treatment. In 2004–2005, research by Rotterdam University (RU) students demonstrated a lack of information, deficiencies in continuity in care, and gaps in communication between health care providers. To improve integrated care and cooperation between different care levels, multidisciplinary teams of professionals have designed a protocol and checklist called 'Transmural Programme Palliative Radiotherapy' (TZPR).

Material and Methods: The RU Centre of Expertise Transitions in Care evaluated the process of regional implementation and the value of TZPR on patient and organizational level. Themes were needs, logistic process, symptom control, psychosocial support and after-care. A Mixed-Method Design was used: focus group discussion and semi-structured interviews with professionals; a questionnaire and semi-structured interviews among patients.

Results and Discussion: Healthcare professionals are positive about the content and implementation of TZPR. They experienced an improvement in the quality of integrated care and support to patients. The patients' perspective confirms these results. Cooperation between different care levels is still the focus.

Conclusion: The participatory approach guarantees the desired integrated care for both professionals and patients.

P4

Do cancer patients really have a choice? Options for out of hospital care

C. Vidall. *Healthcare at Home, Clinical Care, Bristol, United Kingdom*

Introduction: High quality choices for care can be hard to find in a competitive healthcare market. With the Cancer Reform Strategy 2007, focusing on patient choice and care closer to home, the NHS needs to look outwardly to find solutions to the increasing oncology service demands. However, being able to provide a safe service in order to meet these needs can be challenging to all clinical teams managing the cancer patient's care pathway.

Healthcare at Home (HaH) is a well established independent provider of out of hospital acute oncology care. Partnerships are forged with existing NHS and private chemo services to focus on solutions at local level that help to address the national agenda for cancer care. With over fifteen years experience of acute infusional oncology services at home, HaH is in a prime position to provide quality, evidence-based, patient focussed care.

Material and Method: Independent patient surveys [2] and telephone support services [3] have been reviewed to explore the patient experience of acute oncology care at home for NHS, self-funding and privately insured patients. Findings from a variety of sources support this option as being viable and welcomed by patients.

Results and Discussion: Patients being treated at home had less acute toxicities, were less likely to have dose reductions, were admitted less frequently to hospital saving hundreds of bed days

and tolerated their treatment better. By offering these services at home, patients have true choice in their place of treatment, capacity within NHS chemo units can be relieved and the Cancer Agenda can move forward.

Conclusions: Homecare is a safe and cost effective treatment option for oncology patients, well supported by patient feedback. Partnerships in service delivery and place of care need to be further developed across the UK and Europe to allow patients to have a true choice in their treatment.

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P5

Chemotherapy home infusion: improving patient safety and the patient experience with the elastomeric infusor at the Ottawa Hospital Cancer Centre

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Introduction: In GI cancers, infusional 5 fluorouracil is included in many common standard chemotherapy regimens and requires a portable infusion delivery system. We previously utilized a battery operated pump which patients often complained was heavy, inconvenient to use, and often sounded an alarm which disturbed sleep. In 2007, the Institute for Safe Medication Practices Canada (ISMP), recommended the use of pumps with controlled-rate delivery, because of a sentinel event involving the death of a patient in Alberta due to an overdose of 5-FU delivered via battery operated pump. (ISMP Safety Bulletin, 2007).

Materials and Methods: In Eastern Ontario (population 1.5 million) we decided to change our Chemotherapy Home Infusion Pump Programme (CHIPP) from the battery operated pump to the elastomeric infusion device. With Ottawa Hospital Ethics Approval we conducted a prospective survey of 30 consecutive patients converted from the battery operated pump to the Infusor (Baxter Inc.). We asked patients to rate their satisfaction with the Infusor compared to the pump. We also prospectively tracked safety and efficacy of the Infusor through a “real time” incident reporting system. Objectives of this project included improving the accessibility and safety of CHIPP, providing health care education and training, and evaluating overall patient and health care provider satisfaction.

Results and Discussion: During the first thirteen months of this programme we had 5315 of Infusor starts with an average of 442 per month. The most common chemotherapy regimens were FOLFOX 40% (2166), FOLFIRI 35% (1868), and ECF 6% (312). We only had 149 minor incidents (2.8%), of which most were slow infusions. We had no serious infusor malfunction, and had no difficulty with retrieval of the Infusor.

In terms of patient satisfaction, 97% reported the infusor easier to carry, 61% less disruptive to daily routine. Overwhelming, 90% preferred the infusor. One patient stated: “It is easier to wear and do activities with the infusor pump. I am sleeping better with a smaller unit and there is less noise”.

Conclusion: In summary, the elastomeric Infusor is a safe, effective and convenient modality to administer home IV chemotherapy. This

is the first report of a large Canadian cancer centre prospectively studying the change of modality of infusing chemotherapy, and this experience has been quite favourable with no serious incidents and overwhelming patient approval. We recommend other Cancer Centres to adopt this method for infusional 5FU in the home.

P6

Breast cancer surgery treatment information within a group to accomplish more effectiveness, efficiency and patient satisfaction

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Introduction: In the Netherlands Cancer Institute – Antoni van Leeuwenhoek hospital (NKI-AVL) the number of breast cancer patients has increased. All patients used to have an individual and informative appointment preoperatively with the breast cancer nurse during one hour. During this information appointment the breast cancer nurse provided especially information about the logistics regarding the surgery. Due to the increase of the number of patients, the breast cancer nurse had to give the same information several times a day to different patients, which isn't efficient and not challenging. We developed a new method to provide the patient all the necessary information while the patients are satisfied.

Materials and Methods: Prior to the project we evaluated the baseline aspects. Since 1 September 2009 every two weeks a breast cancer surgery treatment information group meeting is organized for a well defined patient group. To evaluate the patient satisfaction all patients received a survey after the meeting.

During our team meetings we evaluated the team satisfaction.

Results: Effectiveness: Since 1 September 2009 we have had 5 group meetings of one hour with 25 patients, (average of 5 patients per meeting). Compared to the baseline of 25 patients in 25 hour, we spared 20 hours.

Patient satisfaction: Patients were satisfied; they consider the information given clear and complete. They are satisfied about the peer contact and felt free to ask questions (they also receive answers on questions other people ask).

Team satisfaction: The breast cancer nurses initially were afraid of losing the individual contact with the patient and having less time to give psychological care but the patient doesn't encounter this. If the patient needs more detailed information or personal contact the breast cancer nurse is able to offer this in an individual meeting. The breast cancer nurses experience more efficiency, less repeating and more time to do other things (for example projects and more complex patient care).

Management: The group meeting is cost saving and need less formation on the outpatient clinic so breast cancer nurse can be allocated elsewhere.

Conclusion and Discussion: Patients as well as breast cancer nurses are satisfied. We will continue evaluating these meetings and will, due to the positive experience, extend the indication for different patient groups in the near future.

Topic: Other

P7

Association of the length of CA dinucleotide repeat in the epidermal growth factor receptor with risk and age of breast cancer onset in Teheran

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Background: The epidermal growth factor receptor (EGFR) also known as HER1 or ErbB1 is a prominent member of the erbB proto-oncogene family, which encodes a receptor tyrosine kinase with a

pivotal role in the regulation of cell growth and differentiation. The aim of this research was to study the CA repeat polymorphism in intron I of EGFR among the patients with breast cancer and healthy controls. We have also evaluated risks for breast cancer, age of onset and grade of tumour associated with the CA repeat polymorphism.

Methods: In the present work, the association of breast cancer with the polymorphic CA repeat in 108 cases of breast cancer and 108 matched controls was studied. After DNA extraction from blood, CA dinucleotide region was amplified by PCR technique and the number of CA repeats was determined by polyacrylamide gel electrophoresis and sequencing.

Results: Our findings demonstrate that women with two short CA repeat (<19) are at a significantly higher risk of breast cancer, at an estimated odds ratio of 1.86. We have also found that women with short alleles (<19) had much greater risk of developing cancer before the age of 55 (OR=3.36).

Conclusion: Our results suggested that shorter CA repeat length may be associated not only with the risk of breast cancer but also with the age of developing cancer in Tehranian population. We did not find any relation between the CA repeats length and tumor staging.

P8

Evaluation of the breast cancer train-the-trainer programme for nurses in Turkey

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Introduction: The Breast Cancer Train the Trainer (TTT) programme was designed to increase breast cancer awareness, improve knowledge about breast cancer among nurses and to provide quality care for breast cancer patients by trained nurses.

Material and Method: A total of three programmes were held and 82 nurses from different regions of Turkey attended this training. The educational activities employed several teaching-learning strategies. Prior to and following training, participants were asked to fill out a questionnaire to determine their knowledge of breast cancer and explain their learning experiences during this programme.

Result and Discussion: After completion of the training, we determined that the participating nurses' knowledge on breast cancer had increased significantly. It was also established that nurses were satisfied with the training received. The Breast Cancer TTT programme is a unique educational endeavour for nurses in Turkey, and our results showed that the training achieved its goal.

Conclusion: Trained nurses in Breast Cancer TTT programmes can help educate women about the importance of breast health and the measures they need to take to protect themselves against breast cancer. At the same time, nurses can also increase and enhance the quality of life in patients with breast cancer.

P9

Informed participation in randomised clinical trials for cancer patients; perspectives from a research nurse

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Background: Research nurses have several responsibilities for cancer patients who receive treatment within the conduct of trials. In general, they inform patients about the standard therapy, provide information about treatment in a research trial and address the issue of participation in a trial. An important question is how participation of these patients in research trials can be improved. What kind of information does a cancer patient need to make an accurate

decision? And what substantial role do research nurses have in the process of decision-making?

Clinical relevance: An educational programme for consent administrators may help to reduce disparities in research participation by improving communication between research staff and potential participants.

Materials and Methods: Literature search (Pubmed, Cochrane, psychlit) with the following strategy between 2000– present, gave the following hits:

- information-cancer-trials-communication-nurse
- research nurse-information-clinical trials- cancer patients-recruitment
- cancer patients-trials-understanding-research nurse
- The reference list of the selected publications will be searched for further relevant literature.

Results: For accurate decision-making patients need essential information about the various treatment options, which should refer to the patient's education level and knowledge. The suggesting was made that patients with better knowledge (e.g. higher education) to randomized trials had a more favourable attitude towards participation in randomized clinical trials. Audiovisual methods can be considered as intervention to inform patients before they give their consent. This method also appeared to reduce anxiety and improved patients knowledge and understanding. Give a patient reasonable time for giving their consent.

Conclusion: The current process for informed consent for research is not standardized and inadequate. Researchers are urged to consider a formal training programme for members of their research teams who will be obtaining participants' consent.

Sufficient time and attention for patients needs are indispensable for good decision making. The research nurse has additional value and is more equipped to inform patients for participating in trials. The research nurse is more approachable and can obtain the confidence of patients.

P10

An exploration of the experience of compassion fatigue in clinical oncology nurses

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Introduction: Oncology nurses are at risk for compassion fatigue (CF). Bush (2009) defines CF as an emotional state with negative psychological and physical consequences that emanate from caring for people experiencing intense trauma, suffering, or misfortune. CF can damage personal and professional health leading to loss of optimism regarding work done (Robinson, Clements, & Land, 2003). Yet CF in clinical oncology RNs is largely unexplored. This paper details a descriptive qualitative research study that investigated the experience of CF in Canadian clinical oncology registered nurses (RNs). The research question was "How do clinical oncology RNs describe their experiences of CF?"

Material and Method: The methodology is phenomenology. A conceptual stress process model that considers caregivers' stress in four domains provides the conceptual framework (Aneshensel, Pearlin, Mullan, Zarit, & Whitlatch, 1995). The purposive sample included twenty clinical oncology RNs. Participants completed an online survey and wrote narratives describing their experiences with CF. Data were analyzed thematically.

Results and Discussion: Five themes were identified. (1) Recognizing CF – Nurses reported having limited knowledge regarding CF, knowing "something" was troubling them about their work but uncertain how to label what they were feeling. (2) Causes of CF – Causes included lack of support and lack of time/ability to give high quality care. (3) Factors that worsen CF – Such factors included divergence between what nurses wanted to do for their patients and what they were able to do, co-existing physical and emotional stresses, and excessive emotional attachment and

involvement. (4) Outcomes of CF – These included profound fatigue of mind and body, negative effects on personal relationships, and considering leaving the profession. (5) Interventions that lessen CF – These included colleague support, work-life balance, connecting with others, recognition, and maturity and experience.

Discussion: The stress process model provides a foundation for development of practice implications. The model explores primary stressors arising directly from patient-nurse interactions and secondary stressors that result from circumstances outside of the care-giving situation. Contextual factors, stressors, and mediators interact to produce outcomes that lead to consequences for nurses. Recommendations that may enhance oncology nurse well-being with implications for staff retention and RN satisfaction flow from the application of this model.

Conclusion: This paper has implications for oncology nurses, educators, administrators, and patients. Healthy workplaces and caregivers are key to optimal patient care. This study provides knowledge about the experience of CF in Canadian oncology RNs that may be relevant to European nurses.

P11

Training of patients and relatives in cancer

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Training of patients with cancer is of utmost importance in achieving successful results of therapy and rehabilitation. Many types of cancer are now curable or at least they have longer periods of survival. Once diagnosed with cancer, patients and their relatives have to cope with not only the disease itself and the uncertain future that it leads but also previously unfamiliar therapy procedures. Chemotherapy procedures have recently been conducted as an outpatient therapy, which require a relatively longer period for attaining successful results. Chemotherapy related side effects may include toxic effects and occur within only a few days after the onset, sometimes within a few weeks, or even months or years after the therapy. Since the patients suffer from the side effects at home with their relatives, providing support for the patients and their relatives is remarkably important to decrease the severity of such effects and maintain the best management. It has been often reported that efficient information in chronic patients helped better relieve and increased physical activity and patient satisfaction. The purposes of training provided for the cancer patients and their relatives are:

- Helping to ensure therapy compliance in patients and their relatives,
- Helping the patients to understand the purposes of therapy,
- Clarifying the order of procedures,
- Allowing recognition for the side effects of therapy,
- Contributing to encourage the patient and the family about self-care,
- Assuring that the side effects are reported when necessary.

When and where should the patient training be organized?

Ideally, the patient training should be organized in a time and place in which the patient and the family feel comfortable and they are ready to get informed. Therefore, the best approach in patient training for the oncologist is to initiate the programme a couple of days after discussing the training programme with the patient.

When possible, patient training should be scheduled to be held in a special unit other than the examination room or therapy unit so as to decrease distraction. An efficient training programme requires 60 minutes in-person sessions which provide comfort and minimize restlessness, and which give enough time to patients for answering the questions, and consolidating and discussing over the key points. Patients may be allowed to bring their family or friends into the session to help them with the problems they might possibly encounter at home.

The information that the patients with cancer may commonly need to know is listed as below;

- Prognosis and therapy
- Therapy methods
- Side effects of the therapy
- The stage of the disease
- Probability of recovering to normal
- The risk of cancer in other family members
- Effects on family and friends
- Effects of therapy on social life and self care
- Effects of therapy on sexuality.

P12

Standards for safe use of antineoplastic drugs

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Health care providers may be exposed to the antineoplastic drugs during the preparation, transportation, administration, storage or disposal stages through inspiration, ingestion or direct skin contact, which eventually urges the implementation of certain standards in chemotherapy.

Drug Preparation Unit: A drug preparation unit should be a restricted to authorized personnel access and it should be allocated only for drug preparation processes. The unit should also have a ventilated biological security cabinet with vertical air flow, and a washbasin.

Personal protective equipment and their use: A variety of protective equipment is used during the drug preparation processes such as gloves, protective gowns, masks, glasses and lab aprons.

Preparation of the medical personnel: Hands are washed and gloves, coats, and masks are worn before initiating the preparation processes.

Drug preparation: Drug preparation processes should be implemented by the authorized personnel only and it should be carried out in the biological cabinet. The drug administration sets should be prepared within a biological safety cabinet and checked for any leakage before use. The set should be vacuumed before adding the drug to the IV. It should be ensured that needles are disposed in bags without being crushed, clipped or capped.

Accidental exposure to the drugs: If there is any risk of contamination, gloves and gowns should be removed immediately and the affected area in the skin should be washed with soap and water. If eye contamination occurs, the eye should be flushed with water or with isotonic for at least 15 minutes. Drug spills must certainly be recorded and reported.

Drug administration: The practising nurse introduces herself/himself to the patient and provides psychological support. S/he also informs the patient about potential side effects and complications. The intravenous way is washed with a 5–10 cc 0.9% NaCl and checked for whether or not the needle is in the correct position in the vein. In administering two subsequent antineoplastic drugs, a three way valve is used and the set is washed and cleaned with 0.9% NaCl and 5% Dextrose every time the administered drug is changed or completed.

Drug wastes: While collecting and transporting the hazardous wastes, protective gloves and gowns must be worn and all the disposable equipment used in the preparation procedures must be placed in waste containers/bags clearly labelled with a hazardous waste warning. The laundry and sheets of the patients who have been given antineoplastic drugs within the last 48 hours should be kept in special bags, which must be washed with other laundry only after being washed separately first.

Medical follow-up of the personnel: The follow up procedures should be implemented for the newly recruited personnel right after the exposure and the others should be regularly monitored once a year or every two or three years.

P13**The evaluation of the studies related to breast cancer in Turkey between the years 2000 and 2009**

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Introduction: Breast cancer is the most common type of cancer among women in the world. In Turkey based on the 2005 data breast cancer ranks first among female cancers reaching a value of 35.47%.

Aims: Gather and evaluate the studies which are related to breast cancer in terms of the researchers, study type, sample type and subject areas and were carried out between January 2000 and September 2009.

Materials and Methods: The study data was gathered from the thesis screening database, medicine and nursing and Turkish online published journals. 109 studies in which at least a nurse or a midwife was involved were included in this study. During analysis of the data, SPSS 11.0 was used.

Results and Discussion: The data was gathered from online journals 65% from the thesis's 26.6%, and from congress books 8.3 %. In 2000 one, in 2001 one more, in 2003 six, in 2004 six more, in 2005 seven, in 2007 thirty two, in 2008 thirty and until the end of September of 2009, sixteen studies were carried out. No study was found to be carried out in 2002, and in general there was an increase in breast cancer related studies since 2005. However, this increase is not statistically significant (fisher $X^2 = 13.51$, $p > 0.05$).

When the type of research was examined 74.3% of the studies were descriptive, 24.8% were experimental or semi-experimental and 0.9% was methods-based. In terms of researchers profile, more studies were performed by academicians nurses and midwives (88.1%) than the nurses and midwives working in the field (11.9%) and this result was statistically significant (fisher $X^2 = 4.79$, $p < 0.05$).

When the areas where the studies were carried out were examined two regions dominated. The Marmara region with 26.6% and the Aegean region with 25.7%. Fewer studies were carried out in the Mediterranean, East Anatolian and Southeast Anatolian regions. Statistically significant relationship was found between the number of researchers and regions (fisher $X^2 D = 31.24$ $p < 0.05$). Differences between the regions were thought to be due to the differences in cancer incidence, the sensitivity of the researchers to the subject and the presence of more established academic life in western cities.

The studies were evaluated in terms of the research subjects and listed in the order of 33.9% breast cancer, 25.7% BSE, 24% health-belief model, 9.2% mastectomy, 5.5% other screening tests and 3.7% breast cancer risk factors.

Conclusion: There is an obvious increase in studies related breast cancer around the world and in our country. However, studies regarding clinical practice of the nurses are inadequate in Turkey. Organizations, associations and universities that are working in this field should encourage nurses, midwives and academicians to work in clinical studies and should guide them and let them put evidence-based results into practice.

P14**The course of medicine: process analysis and preliminary results**

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Introduction: In modern organization of the medical oncology unit it's very important that the oncology therapeutics be prescribed, prepared, administered and expelled by way of a well organized course and traceable in each phase.

Objectives: The aim of our study is to value the adherence and the feasible application of the procedure "Procedure for the correct performance of the activity of: distribution of personalized oncology therapy, management of supporting therapy, reaction to accident which began on 03/11/08 after six months activity".

Methods: Collection of data from 03/03/09 to 24/04/09. Requires qualifications:

1. Completeness: cases of dispensing cards without the registration of control
2. Safety of the patient: therapy received not in conformity.
 - Dispensing cards: received not in conformity
 - Cases of lack of correspondence between patient and the labels of the therapy
 - Cases of lack of correspondence between dispensing cards and label of the therapeutics
3. Appropriate assistance: cases of complaints received by means of Public Relation Office
4. Safety of personal: cases of lack of observance of internal regulations by regarding individual protection devices.
5. Correct prescription: cases of not suitable prescription
6. Correct clinical: cases of patients who dead after therapy done in the last month of life
7. Completeness: cases of cards with the final signature of the doctor; cases of clinical files with the final signature of the doctor, cases of complete lack of the final signature of the doctor
8. Waiting time: waiting time of maximum 10 minutes, max 20 minutes, max 30 minutes, over 30 minutes.

Results: The collected data regarding acceptance of the protocol and it's feasible application.

Conclusions: Each improvement in quality needs involvement and adhesion by all the group and periodical monitoring of all the indicators of procedure.

P15**The evaluation of breast cancer patients' receiving information situations**

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Introduction: Patients with breast cancer have a need for professional support at every stage of their sickness, starting from diagnosis. The patients with breast cancer in our region have been seen to experience quite serious problems during diagnosis, treatment and the post-treatment period. It has been observed, however, that these problems have not been adequately addressed. The European Guidelines on the rights of patients with cancer (Association of European Cancer Societies, October 16, 2004) states that patients must be informed and supported in accessing information that will help them in understanding and coping with the disease.

This study was conducted to evaluate how patients with breast cancer access information about their sickness.

Material and Method: This is a descriptive study conducted through a part of the pre-test data of a three year long scientific project (TÜBITAK-107K404 Project-Creating a More Comprehensive

Awareness About Care And Receiving Information In Breast Cancer Female Patients and Their Families). The data were collected from 52 patients with breast cancer, who participated in the project voluntarily, and whose treatment and follow-up are conducted at Erzurum, Turkey Ataturk University Medicine Faculty between October 2008 and November 2009, by means of data form prepared by the researchers.

Results and Discussions: 79.2% of the patients included in the project stated that they received information. However, 59.5% of the patients asserted that given information was insufficient when it was questioned whether the information they had was sufficient or not. When the sources of information were examined, it was found that only a low level of (11.9%) received information from nurses. It was determined that majority of the patients (28.3%) demanded more detailed, clear and simple information, that an important percentage of the patients (20.8%) refrained from asking questions to physicians and nurses, and that the 17.0% of the patients had difficulties in accessing different sources of knowledge.

Conclusion: Pre-test results obtained in the project so far indicated that nurses were not effective enough to provide information to patients. This situation is important in that it supports the necessity of the project.

P16

The importance of education of ostomy patients in improving quality of life

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Introduction: The aim of the study was to determine the role of nurse in improving ostomy patients' quality of life.

Material and Methods: Patients were prospectively randomized into three groups: I group – 40 patients with the preoperative stoma siting and adequate preoperative and postoperative teaching. II group – 37 patients who have received teaching after operation but without preoperative teaching and stoma siting. III group – 40 patients without preoperative stoma siting and adequate teaching by the nurse. Patients were asked to answer the questionnaires the day before the stoma creation operation, 3 months and 6 months after the operation. There were used questionnaires EORTC QLQ-C30 and EORTC QLQ-CR38 and supplementary questions.

Results and Discussion: The results of the study show that general Quality of life and the results of the functional and symptoms scales did not differ significantly between all groups of patients before operation. Alteration in Quality of life 3 months after the operation were changes in social functioning and body image scales in all the groups when comparing with preoperative data. Patients of the group III showed significantly worse results in physical health future perspectives and there were significant more fatigue symptoms, more financial problems when compared with preoperative data. Comparison results of Quality of life between groups 3 months after operation show that group I and II more easily adapt to the changes of their body image and stoma related problems were significantly less compared to group III. There were positive changes in quality of life 6 months after operation when compared with data obtained 3 months after operation. There were better physical health, emotional functioning, social functioning and body image results in group I. The stoma related problems decreased significantly in all the groups. Patients from groups I and II less worried about future health problems.

Adequacy and comfort of stoma site were significantly better in group I when compared to group II and group III both 3 and 6 months after operation.

Conclusion: Quality of life of patients worsened in all groups of patients three months after operation, however, educated patients had fewer falls in quality of life scores than no educated patients. All groups of patients Quality of life results improve only six month after operation. Preoperative stoma siting by nurse leads to more comfortable stoma site for patients.

P17

Culture of patient safety and problems of the nurses working in an oncology clinic

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Introduction: Patient safety is a whole of the precautions taken by the health care facilities and the workers of them in order to prevent a possible damage to the individuals of health care services. The present study was conducted to determine the culture of patient safety and problems of the nurses working in an oncology clinic.

Materials and Method: The study was performed as quantitatively (n=52) and qualitatively (n=7) with the nurses working in an oncology hospital of a university. Consent and permission from the institution were obtained. Quantitative data were collected by "The Questionnaire of Culture of Patient Safety" developed by Sora & Nieva (2004) and "Scale of Working Environment" by Mary A. Blegen (2003). Configured questions entitled "the subgroups of the culture of patient safety", "reporting the inaccurate events and problems lived", "procedures belonged to the relevant institution on patient safety", "recommendations about improving the culture of the patient safety" were used to collect qualitative data by the focus group interview. Qualitative data were assessed by the NVivo₇ package programme and quantitative data were assessed by chi-square, student's t and ANOVA tests.

Results and Discussion: 42.3% of the nurses thought that the applications regard to patient safety were in acceptable level and 94.2% explained that they didn't prepare case reports. The most unfavourable answer entitled in the subareas of culture of patient safety was punitive response against inaccurate events (71%). In the focus group interview, the most important components of the patient safety were body wholeness, environmental and employee safety according to the nurses and it was found that they discussed with the staff of the clinic in an inaccurate event, but not with the managers of the hospital due to the previous experiences resulted in increase in shifts, oral or psychological constraints. The nurses mentioned about not having any procedures and forms about patient safety and if they had designed similar ones, those forms were not used throughout the hospital or they were not aware of the relevant procedures and they were not educated on this issue. The recommendations of the nurses interviewed were providing an affirmative communication between the management and workers, discussing the situation caused to a problem, educating the new workers, sharing the advanced procedures with all of the units in order to improve the culture of patient safety.

Conclusion: Although the nurses thought they had acceptable safety of patient, approximately all of them did not report the inaccurate events. The reason for this was defined as not having relevant forms, as getting unfavourable feedbacks and the suppressions.

P18

A one-year retrospective analysis of cancer patients presenting to an emergency department

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Introduction: An oncologic emergency is defined as any acute, potentially life-threatening condition, either directly or indirectly related to a patient's cancer or its treatment. We aimed to contribute to our country's database for cancer patients by

identifying epidemiological, demographic and clinical features of cancer patients applying to Emergency Department (ED).

Material and Method: This retrospective descriptive study was conducted in the ED of Erciyes University Medical School, Kayseri, Turkey. The charts of cancer patients presenting to the ED between January and December 2009 were reviewed. By using a systematic sampling method, 243 patients were included in the sample, out of 248. Patients' charts were identified using ICD-10 coding system. Data regarding the age, sex, diagnosis, reason for the application, application of time and clinical features were obtained from the patients' charts.

Results and Discussion: Of the 243 subjects 63.8% were men and 36.2% female. The mean age of the study group was 59.5 ± 14.2 years. The majority of the applications the ED occurred during the daytime. During the one year, the most common application to the ED occurred in June.

The five most frequent cancers were found as follows; lung cancer (30.9%), head and neck cancer (18.5%), gastric cancer (9.9%), leukemia and colon cancer (6.6%; 6.6%), bladder cancer (5.5%).

The most common complaints of the patients applying the ED were dyspnea (26.9%), worsening in general health condition (20.8%), weakness (11.7%), widespread body pain (10.0%), abdominal pain (7.4%) and chest pain (5.6%).

Of 243 patients, 23.0% were hospitalized, 12.4% died in ED, 9.0% refused the treatment and 55.6% were discharged after they had appropriate therapy at ED.

Conclusion: To our knowledge, any study on general demographic and statistical properties of cancer patients presenting to an ED has not yet performed in our region. The findings of this study may contribute to the national database of cancer patients.

P19

A qualitative study related to problems experienced during chemotherapy and radiotherapy in women with breast cancer

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Introduction: Women exposed to radiotherapy for breast cancer encounter physical and emotional problems. This study performed to identify problems experienced by women with breast cancer related to chemotherapy and radiotherapy.

Materials and Methods: The study was performed in radiotherapy unit of the oncology department in a university hospital. The study was done in seven women receiving radiotherapy treatment with using in-depth interview qualitative research technique. Informed consent was taken from all patients. Interviews were constructed with topics of "encountered physical and emotional problems" "family member support" "effect of treatment on relations with her environment". Data was analyzed with deciphering of interrogation records with using NVivo₇ packed programme.

Results and Discussion: Women enrolled into the study were at ages of 26, 40, 40, 42, 50, 60, 66 years. All women were housewife and 5 were married. Six of them were graduated from primary school and one was graduated from high school. All women had surgery and chemotherapy prior to radiotherapy and only one had mamoplasty.

All women indicated that they had more problems during chemotherapy and radiotherapy is relatively convenient. The most common physical problems during chemotherapy were alopecia, nausea, vomiting, mucositis, fatigue and pain and edema in effected arm. The most common emotional problems during this time were denial, fear, anger, despair and concerns for the future.

They all expressed that they had fear of burning prior to radiotherapy and had difficulty in sleeping because of that. They also indicated that they experienced redness, burns, localized pain in skin and fatigue problem.

They all had enough support from their husbands during the treatment and they could not have sex because of unable to have

bath during the course of radiotherapy and all husbands were considerate for this.

They all received help in full for housekeeping from their mothers and sisters during chemotherapy although they received partial help during radiotherapy. They all restricted their social activities to avoid from questions and possible infections.

Conclusion: We observed that women with breast cancer experienced physical and emotional problems during the treatment, mostly during chemotherapy and they had good family support.

P20

Evaluation of the relationship between level of nursing care satisfaction and symptom experience due to chemotherapy in cancer patients

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Introduction: Cancer patients often experience multiple symptoms that a result of the disease itself or of the associated treatment. The patient needs to exhaustive and quality care during their disease process. The healthcare team's goal is to provide the patient with the best health care and service possible. Assessments of patient satisfaction have become widely accepted as a legitimate and worthwhile approach to improvement of service and care quality. The aim of the study was to define relationship between the patient satisfaction with nursing care and their symptom experience in cancer patients during chemotherapy treatment.

Material and Method: This study was planned as a descriptive and cross-sectional study performed at the Gülhane Military Medical Academy (GMMA) Training and Research Hospital, Department of Medical Oncology clinic and outpatient clinic with 60 patients. The GMMA is located in Ankara, the capital of Turkey. Patient Data Form, the "Chemotherapy Symptom Assessment Scale (C-SAS)" and "Patient Satisfaction Scale" (1–5 Likert scale, total 29 items, Higher scores suggested that patients had good satisfaction) were used in order to collect the data.

Results and Discussion: The average participant age was 45.18 ± 17.79 (min=21, max=85). 43.3% of the patients were 18–40 years old, most were male (63.3%), 60.0% were married, 53.3% had a high and after school educational level. The duration of disease was between in 0–6 months in 41.7% of the patients. 70.0% of patient did not take any medication other than those for cancer treatment. The total Patient Satisfaction scale mean score was determined to be 1.21 ± 2.29 according to the responses given by the participants to the items in the scale. This score shows that patient have lower nursing care satisfaction. According to demographic and medical characteristics of patient satisfaction mean score and degree of symptom disturbing patient showed no significant difference ($p > 0.05$).

There was no significant difference between satisfaction mean score and symptom experiencing of patient ($p > 0.05$). There wasn't any meaningful relationship between satisfaction with nursing care mean score and degree of symptom disturbing of patient.

Conclusion: Nursing care satisfaction of patient is lower than average score also is recommended to investigate. This study is being continued after being completed we can represent difference conclusion.

P21

Strategy for implementation of minimum nursing standards in oncology to secondary level

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Introduction: Institute of Oncology Ljubljana (IOL) is a public health institution providing health services on the secondary and tertiary level as well as performing educational and research activities in oncology in Slovenia. As a principal national institution, the IOL supervises the programmes on comprehensive management

of cancer diseases. Analysis of routinely collected data by Epidemiology and Cancer Registries showed that patients with cancer had significantly better survival rates when they were treated at the IOL than when they were treated in other Slovenian hospitals. One of the compelling goals that the IOL has to achieve is to draw up the treatment and nursing guidelines and set the control over their implementation. With the adoption of such guidelines, the approaches to treatment and nursing at the secondary level would be unified in the whole country.

Material and Method: In 2007 a nursing survey was conducted by IOL and Oncology Nurses Section on nursing care in cytotoxic and target treatments in all hospitals and units giving these treatments. The main focus of the survey was on the nursing standards and guidelines and on the safety and education of nurses giving systemic treatments and cancer nursing care. The data were collected by the on site visits and structured interviews of involved nursing personnel.

Results and Discussion: Results of the survey has shown that patients were cared for differently in different institutions for the same treatments and procedures, which raised questions, doubts and fear in patients about the quality of care they were receiving. Data also showed that nursing documentation was not used everywhere, and guidelines on extravasation were lacking. As a result of presented findings a strategy for drawing up a national cancer nursing guidelines and set the control over their implementation was developed. The main point of strategy was on education and training combined with advisory visits and control. The strategy also included the development of nursing documentation and patient education.

Conclusion: Recognition of the need for collaboration off all health care professionals included in care of patients with cancer is one of the major challenges of cancer nursing in Slovenia. Due to increasing incidence of patients with cancer it is not possible to offer integrated cancer care to all patients at the only oncology centre in Slovenia, although patient treated at IOL have better outcomes than patients treated in other Slovenian hospitals. That is why integrated cancer care for some cancer treatments on oncology wards in secondary hospitals must be delivered according to minimum treatment and nursing standards in oncology.

P22

Decision-making about withholding and withdrawing artificial nutrition and hydration in palliative care

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Introduction: In the terminal stage, food and fluid intake generally diminish and it is at this time that a relative may ask about the possibility of nutrition or hydration by artificial means. Effective and sensitive communication with all concerned is vital to ensure understanding that it is the underlying disease which is bringing about the death of the patient, not the withholding or withdrawing of a particular treatment.

Material and Method: An extended literature review was conducted on this specific topic. Extensive electronic database searches (Biomedicina Slovenica, COBISS/OPAC, PubMed, BioMed Central, Science Direct) as well as hand search were carried out.

Results and Discussion: Both the withholding and withdrawal of care have an ethical basis in the values of personal autonomy and self-determination. In the practice of medicine, these values manifest as informed decision-making. Decision-making competence and capacity are two terms which deal with patient's ability to determine and express his own will. Because, multidisciplinary team determines whether a patient has medical decision-making capacity or not, it is therefore very important that this be done accurately.

When a patient has been found to lack decision-making capacity, the multidisciplinary team should call upon a surrogate to make decisions. Because, there can be many ethical challenges in surrogate decision-making, it is advisable to create advance care planning in which a patient articulates his or her preferences in advance of decisional incapacity. This preventive ethic can help ease the moral and psychological burdens on the surrogate, and promote surrogate decision-making that more accurately represents patient wishes.

Conclusion: A patient's right to self-determination at the end-of-life is based on the autonomy principle. Just as patients can determine what should be done when they are undergoing curative treatment, they should also be allowed to decide what medical interventions to accept or refuse as they die. Despite the emotional involvement of the practitioner or family member, it is the patient alone who will directly bear the physical and psychological burdens of an intervention.

P23

The instructing role of nurse in breast self examination

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Introduction: Early diagnosis of breast cancer may affect to lengthen life, decrease mortality, increase life quality and to prevent physical pain and psycho-social troubles of women. Breast self-examination (BSE) method is not as sensitive as mammography and physical treatment. However; there are researches about that women applying BSE ascertain breast cancer at a rate of 95%, and early phase breast cancer at a rate of 65% and thus, they provide a reduction in mortality at a rate of 18%. In this study, we aim to measure the level of knowledge of women in BSE and the effectiveness of the instructing role of nurse.

Material and Method: In the survey, the sampling consists of 200 volunteer women. The data have been collected using a 23-question questionnaire form which was developed in accordance with the literature. After the women filled out the forms, they were included into a theoretical and practical training programme of BSE. Education was evaluated with a final test. Chi-squared test and T test in dependent and independent groups were used in evaluation.

Findings and Discussions: 65% of the participants know about BSE and 61.2% of them practice BSE. While 6.5% of those who apply BSE are sure of what they do, 62.6% of them are not so certain. While the average point of the participants before the education BSE is 8.97 ± 3.6 , this figure increased to 15.72 ± 2.31 after the education. A statistically meaningful difference was found between the average points before and after the education. When compared with domestic and foreign researches, it is evaluated in our research that although the knowledge and practice of BSE is showing a high frequency, it is not sufficient considering the importance of early diagnosis of breast cancer. In many researches, it is shown that the level of knowledge and the application attitude of BSE are meaningfully increasing.

Conclusion: Nurses who play a key role in providing the women with information about how they should get use of health services also play an effective role in teaching BSE and its application. Nurses should take active responsibilities and use the role of educator by increasing knowledge and effectiveness in BSE related educations.

P24

Nursing students' knowledge and opinions towards Complementary and Alternative Medicine (CAM) in cancer patients

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The use of complementary and alternative medicine (CAM) therapies along with conventional cancer therapy is very popular

worldwide. Some of CAM therapies are inherent in basic nursing practice. Aim of this study is to determine nursing students' knowledge and opinions towards CAM in the cancer patients.

This descriptive study was conducted in a University located in Ankara, Turkey and total of 148 (80.8%) students participated. The data had been collected with questionnaire which was developed by the researchers based on the literature and consisted two parts. Part I consists of 21 questions (students' socio-demographic characteristics and information about CAM. Part II included 17 items using a five point Likert scale (agreed–disagreed) about nursing students' knowledge and opinions towards CAM in the cancer patients.

Twenty one percent (n=31) of the students have a relative with cancer; 51.6% of them indicated that they don't know whether or not they used CAM. It is determined that half of students (48.6%) exposed with cancer patients during nursing education; among them 50.7% asked about state of patient's CAM usage. Students are knowledgeable about medical methods used in cancer treatment but CAM such as acupuncture (39.2%), religious practices (34.5%), massage 18.2%, aromatherapy (8.8%), therapeutic touch (7.4%) was known rarely. Students (75.7%) stated not knowing whether or not nursing practice includes CAM methods. Only 20.9% of them expressed that they received information (media 67.6%, internet 61.7%) about CAM, but 58.8% of these students think the information is insufficient. 70.8% of students stated that they wouldn't suggest CAM, when any of their relatives is diagnosed cancer. Half of students (45.9%) disagreed with the statement "CAM methods must be practiced by the professionals who are not medical staff", 42.6% of them agreed with the statement "CAM methods required multidisciplinary approach", 73.6% of them agreed with the statement "To request information about CAM is patient's right" Majority of students (77%) stated the need for integration of CAM into nursing curriculum.

Conclusion, students know more frequently that medical methods used in cancer treatment but they don't know enough knowledge about CAM methods and usage in nursing practice and they want to learn about it. CAM could be included into nursing curriculum in order to be used of complementary therapies by students in their practice.

P25

The case assessment with regards to caring of tunnelled central venous catheter (Hickman Kateter®) and implanted port catheters used in the area of oncology

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Introduction and Purpose: Nowadays, tunnelled central venous catheters and implanted port catheters have been commonly used in the area of oncology along with the increasing usage of high dose and permanent infusion chemotherapy applications. It is thought that many different practices are used in oncology centres. This study is planned to perform a case assessment in relation to heparin amount and frequency to prevent occlusion together with antiseptic solutions and dressing material used for tunnelled central venous (Hickman®) catheters and implanted port catheters practices in oncology centres.

Material and Method: Data was collected from 33 nurses who work at different 19 oncology centres by a questionnaire which was developed by literature search and includes questions about caring of tunnelled central venous catheters and implanted port catheters. Data was analysed with SPSS 11.0 by computing percentile.

Findings and Discussion: As a result of final evaluation, nurses have stated that nearly half of them (51.5%) use gauze bandage

and clear tape as a dressing material to fix Hickman® catheter and the other half (48.5%) have stated that they use gauze bandage and clear tape to fix implanted port catheter. The 10% percent povidon iodine is mostly preferred material for skin hygiene (57.6% for Hickman® and 81.8% for implanted port catheter). It has been determined that different practices have been around with regards to changing intervals of Hickman Catheters' valves (21.2% percent of immediately after contamination and 24 hours interval, 21.2% percent of immediately after contamination and 48 hours interval, and 42.4% percent of immediately after contamination and weekly). It has been stated that the percentage of heparin used for prevention of Hickman catheter's occlusion was 42.4% with 100 u/ml heparin and the percentage of heparin used for prevention of port occlusion was 51.5% with 100 u/ml heparin. It has been stated that different concentration of solutions with heparine are used for prevention of Hickman catheter occlusion.

Conclusion and Suggestions: It has been determined that there are some differences among centres and nurses with regards to caring of tunnelled central venous catheter (Hickman catheter) and implanted port catheters used in the area of oncology in terms of dressing material, dressing replacement frequency, heparin amount, heparin usage frequency and valve replacement frequency. It is suggested that some guidelines intended for countries and organizations shall be developed and multi-centred randomize studies shall be performed to reduce this discrepancy to the lowest level and to use evidence based studies in practice.

P26

Comprehensive care of cancer patient with chronic radiation-induced skin ulcer

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Introduction: An eighty-year-old female patient was irradiated for basal cell carcinoma on the back and the dorsum of the right foot. The patient had several accompanying diseases. Four months after the completed radiotherapy, an ulcer developed on the irradiated skin area of the right leg. Fibrin and exudate deposits of unpleasant smell were found in the wound base, the foot was edematous and red; she suffered from severe pain.

Material and Method: The patient was treated for infection with systemic antibiotic therapy, referred to the Pain Control Unit and due to malnutrition she was fed parenterally. She was treated for four weeks with the most up-to-date and standardized methods of chronic wound management. Fibrin deposits and necrotic tissue were removed surgically. However, due to lower limb ischemia and persistent infection, the wound could not heal properly. After obtaining the patient's consent, we applied negative pressure wound therapy. The bandages were changed every three days. We carefully observed the edema and redness of the wounded area, exudate deposits, wound margins and wound base. We regularly recorded the pain grade, followed her physical condition and evaluated and documented the wound condition.

Results and Discussion: The improvement was evident: the edema was disappearing, and so were also the redness of the skin and deposits at the wound base. Granulation started to develop at the margins, no unpleasant smell was noticed and the pain was minimal. After the four-week therapy, the wound was covered with tissue granulation and the margins had sufficient force to contract the wound. The surgeon then covered the wound with the skin graft obtained from the patient's thigh. The therapy was continued for one more week; after that, the wound was managed with up-to-date methods of wound healing. The treatment results confirmed that we established optimal conditions for wound healing by using negative pressure wound therapy which stimulated angiogenesis and thereby also local blood circulation and tissue oxygenation. Peripheral edema disappeared. By extracting the wound exudate, the wound moisture was restored and the bacterial load was thus decreased.

Granulation tissue covered the wound and, within four weeks, the wound was healed enough for the second reconstruction.

Conclusion: With a multidisciplinary team approach to the treatment of patient with radiation-induced hypoxic chronic skin ulcer and by choosing negative pressure wound therapy, we obtained optimal treatment results, improved the patient's quality of life, reduced hospitalization time and thereby enhanced cost-effectiveness. Finally, the satisfaction of the medical team with the treatment success should not go unnoticed.

P27

Turkish nursing students' perceptions towards cancer and caring experiences for cancer patients

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Experiences of caring for cancer patients influence nursing students' perception about cancer. Especially initial exposure to cancer patients is important for the perceptions and attitudes which can be changed by education and clinical experiences. This study aimed to determine nursing students' perceptions towards cancer and caring experiences for cancer patients.

This descriptive study was conducted in a university located in Ankara, Turkey and total of 168 students (response rate: 92%) were participated. The study was conducted in two steps. First, a self-report questionnaire consists of 23 questions related socio-demographic characteristics, experience of caring cancer patients and additional 22 items using a four point Likert scale for perception of students about cancer which were drawn from the literature. In the second step of the study, qualitative research design was used to explore caring experiences of students. From third and fourth year students, 24 of them were invited to attend two focus groups. Semi-structured interviews were conducted via five open-ended questions. Sessions took 1.5 hours and interviews were transcribed verbatim.

Although most of the students (80%) have knowledge on cancer; 22% of them indicated as sufficient and 56 % of them indicated as partly sufficient. Nearly half of the students (40%) have experienced in caring of cancer patients.

Majority of students displayed negative perceptions towards cancer. No statistically significant difference was found between the negative items mean scores first, second, third and fourth year students; positive items' mean score were lower in third year students which were statistically significant ($p < 0.05$).

Main themes emerged regarding caring experiences were; hardship, uncertainty, fear, hope and meaning of cancer as "death". For the difficulties encountered in the care were communication difficulties (inadequacies, avoidance of being present with patient), helplessness and fear of doing wrong. Preceptor and nurses were seen as support; peer and patient support were most referred resources. They wanted to be seen as a member of the team, working with expert nurses and to share their experiences.

Majority of students hold negative perceptions towards cancer. Educational programmes and supportive strategies may alleviate fears and promote a more positive image of cancer. However, such strategies must be based on an understanding of current perceptions towards this phenomenon.

P28

The role of primary nursing on the oncology day care unit

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Introduction: The Netherlands Cancer Institute – Antoni van Leeuwenhoek Hospital (NKI-AVL) accommodates 180 beds and an out-patients clinic that receives 24,000 new patients each year. The NKI-AVL maintains an important role as a national and

international centre of scientific and clinical expertise, development and training.

The Oncology Day Care Unit provides treatments as chemotherapy, immunotherapy and supportive care for patients with cancer. In 2008 an average of 60 patients per day were treated.

All nurses at the Oncology Day Care Unit are specialist in oncology nursing. In an attempt to improve quality of patient care we introduced primary nursing. With primary nursing one nurse is responsible for the whole course of treatment at the Oncology Day Care Unit. Currently we have 5 years of experience in primary nursing. In this study nurse and patient satisfaction is evaluated.

Method and Material: For this descriptive study questionnaires were sent to all nurses ($n = 15$) and 179 patients. The questionnaire for the nurses consisted of 5 questions and for patients of 3 questions. The questions concerned satisfaction and quality of provided care.

Results and Discussion: 11 nurses (73%) responded to the questionnaire. All responders were satisfied about primary nursing and think that the method of primary nursing improves the quality and continuity of care. Primary nursing improved the sense of responsibility and personal contact with patients, which enabled to respond more effectively to patient needs and closer relationships with patients and their family members. However, when a patient's primary nurse is not available, some nurses reported trouble with acceptance of another nurse. Others report that a too close relation with the patient might hamper the quality of care.

Sixty-three percent of patient respondents ($n = 145$) were satisfied about the organization of primary nursing and fifty percent indicated primary nursing as very important. However, not all patients had experience with primary nursing and some patients were not informed about the method of primary nursing.

Conclusions: Based on this small study at one study site, primary nursing is considered to improve the quality, satisfaction and continuity of care in the Oncology Day Care Unit. Although several disadvantages are reported. At our Day Care Unit primary nursing will be implemented for all patient care. Primary nursing will be promoted by nurses both at the Day Care Unit and at the ward, in order to raise awareness of this new method and improve multidisciplinary cooperation between day care nurses and other care givers. In the future we will re-evaluate the satisfaction with this method of patients, nurses and consultants.

P29

The network of specialised oncology nurses in the Albert Schweitzer Hospital, The Netherlands: a major step forward in multidisciplinary oncology nursing

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Introduction: The Albert Schweitzer hospital in the Netherlands is a teaching hospital, with more than 2000 new diagnoses of cancer a year. The cancer care is provided by various professionals working in various areas of gynaecology, urology, internal medicine, surgery and pulmonology on different wards and outpatient clinics. In these departments, certified oncology nurses provide specialised nursing care for patients. However, the coordination and the continuity of nursing care and harmonisation of nursing methods between the various departments has been suboptimal. Therefore, an internal network of specialised oncology nurses was set up.

Materials en Methods: In 2000 the Network of Specialised Oncology Nurses (NSON) was set up. The NSON aims to stimulate and control the quality of nursing care for cancer patients in the hospital and with patients are being transferred to other health care providers. It consists of specialised oncology nurses of all disciplines, who provide nursing care to cancer patients. The NSON influences

policy decision-making by participation in the hospital's "oncology committee", together with medical doctors and policy-makers.

The NSON drew up a policy in which the aims of the network and regulations were documented. Each year, a plan of activities is established. The NSON members meet four times a year and discuss new developments in their own department and new information derived from external meetings. Each year, the NSON organises a meeting for all nurses and other employees of the hospital to share knowledge, discuss new developments and their consequences for nursing in our hospital, and to stimulate contacts between nurses. The NSON uses the hospital's communication channels to promote oncology nursing. An example of an achievement in recent years is the development of a patient-transfer-form. This form is completed by the specialised oncology nurse when a patient is being transferred to a colleague from another department.

Results and Discussion: The coordination and the continuity of care in oncology nursing care have improved since the measures were implemented. Nurses of various departments now use the same protocols and methods. Knowledge of new developments has improved and nurses know to find colleagues to get the information they need. Familiarity with oncology nursing in the hospital has grown. The meetings organised by the NSON have become ever more popular.

Conclusion: By transferring knowledge, harmonising methods and initiating projects to improve oncology nursing, the NSON has been able to raise the standard of oncology nursing in the Albert Schweitzer hospital. In 2010, the NSON will start the implementation of evidence-based nursing in order to encourage a more scientific approach to nursing.

P30

The incidence of cancer in Turkey

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Cancer is the one of the leading health problems today, the second most common cause of death following cardiopulmonary diseases, which comprises 12% of all deaths worldwide. According to the recent data presented by the International Agency For Research on Cancer, it is estimated that cancer will cause 6 million deaths plus 10 million new cases in 2000, 8 million deaths plus 12 million new cases in 2005, and 12 million deaths plus 30 million new cases in 2030.

Cancer is also a major health threat in Turkey and therefore an overall analysis is urgently called for determining the variables of cancer cases with regard to different geographical locations and time periods so as to develop control strategies and implement a cancer control programme. Cancer Report Centres are the most reliable sources of statistics needed for conducting epidemiologic studies of cancer. Similarly, the Ministry of Health initiated "Cancer Report and Incidence Projects" in 1992 with a view to gather reliable statistical data and build up cancer control programmes. Accordingly, Cancer Report Centres were founded in 14 districts and cancer cases were registered with active reporting system. In Turkey, today, there are 84 Cancer Diagnosis, Scanning and Training Centres in total, that is, there is at least one centre in each city.

Since the present reporting systems in Turkey are apparently inefficient, a sufficient set of data on the incidence of cancer hasn't been collected so far. According to the data from a variety of sources, the incidence of cancer range from 35 per hundred thousand to 200 per hundred thousand in Turkey. An analysis of the cancer reports illustrated that the most common types of cancer for males are tracheobronchial and lung cancers (37.3%), gastric cancer (9.6%), bladder cancer (8.6%), colon and rectal cancers (7.4%), while the most commonly reported cancer types for females are breast cancer (19.9%), colon and rectal cancers (7.6%), gastric cancer (5.7%), and ovarium cancer (4.8%). The mortality rates for

cancer among males, on the other hand, were found to be 34.5% for tracheobronchial and lung cancers, 8.2% for gastric cancer, 4.6% for bladder cancer, while for females they were 8.8% for breast cancer, 4.9% for colon and rectal cancers. In light of these results, it may be recommended that people should be educated about the dangers of smoking in regard to the increasing rates of lung cancer or about the dieting habits in regard to colon and rectal cancers; cancer prevention policies should be established in accordance with the attempts of early diagnosis in prostate cancer; national cancer scanning standards should be implemented and reliable data should be available through cancer reporting systems based on civil registry records.

P31

Assessment of quality of life of palliative patients

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The purpose of this research – to assess quality of life of palliative patients.

Research was done in February – April of 2009 in 2 nursing hospitals in Kaunas town, Lithuania. The method of research – anonymous, questionnaire inquest. The 30 palliative conscious patients were investigated. Questionnaire consisted of 41 questions. Every answer was marked in 10 points scale, when 1 point – very positive, 10 points – negative.

The results of the investigation revealed that majority of the patients confront with the different physical and psychological, social and spiritual problems.

1. Palliative patients' physical condition was bad. Sleep disturbances, fatigue were the most common complains. Poor overall physical condition due to other physical problems – pain, movement disorders, altered diet. No one of respondents assessed his/her physical condition excellent or very good.

2. Dismay was the one from the biggest factors acting for the psychological wellbeing. Dying patients often troubled by worries which are going together with the fears of the future, exacerbation of the disease, a new case, that it's difficult to differ one from another. It's hard for the patients to conciliate with the consequences of the disease today; they didn't feel happiness, didn't feel satisfaction of their life and didn't think that they control it.

3. Significant impact on patients' social wellbeing effects of the disease to the family: not only the patients, but their families needed help. In the social wellbeing the most disturbing change were the financial status, household and employment changes.

4. The disease disturbed very much the life of the patients. The patients felt uncertainty for the future, they doubted with life significance and their own existence. Religious practice helped for the patients not to lose their hope and to struggle the disease and their consequences.

5. The patients badly appreciated their own life quality and to this statement entangles many aspects such as from physical, psychological, social and spiritual wellbeing which can't separate because one influences another, so its influences the common.

6. Physical health was better satisfied than psychological, social, and spiritual, defined the statistical reliable difference between physical and psychological, physical and spiritual wellbeing averages $p < 0.05$. The received averages show that psychological, social and spiritual health of the patients were satisfied equally, the statistical reliable difference among these wellbeing were not defined $p > 0.05$.

P32**Assessment of the needs of palliative patients' relatives**

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The object of the study: To evaluate the needs of palliative patients' relatives.

Study contingent: Palliative patients' relatives who visited palliative patients and care of them in nursing hospitals. The study sample consisted of 40 respondents from 2 nursing hospitals from Kaunas, Lithuania.

Study results: The study revealed that the palliative patients' relatives' spiritual needs are not sufficiently satisfied: spiritual help was not given to 75 percent of respondents and for 45 percent of respondents spiritual life has changed after the relative disease diagnosis. Participation in religious activities is important for the half of the palliative patients' relatives. Psychological needs are not satisfied too, for 70 percent of respondents psychological help was not given. The main complains of palliative patients' relatives are: worry (n=30), stress (n=28), and fear (n=19). To palliative patients' relatives' financially is difficult to maintain the palliative patients, the resulting income is insufficient, 30 percent of respondents indicated that the financial problems associated with the maintenance. Financial needs of palliative patients' relatives are not sufficiently satisfied: 57.5 percent of palliative patients' relatives were not supported by social help, such as social benefits, allowances. Half of respondents (50 percent) argued that their income is not sufficient to care palliative patient and they have financial problems to maintain the patient (45 percent). Physical needs are satisfied partially: 45 percent of respondents argued that care/nursing not always takes away the all physical forces, medical help was given to half respondents (50 percent), 47.5 percent of palliative patients' relatives argued that they are enough healthy to care the palliative patients, 37.5 percent of palliative patients' relatives health didn't become worse from the time they care of patients, the main palliative patients' relatives' complains are: the weakness (n=18), pain (n=13), loss of appetite (n=11). Mourning period should be included in the palliative help, because the patient death is not the end of support to the family. Palliative patients' relatives can not be without help after the death of a patient, because they will be sad and disappointed at least one month after the death of their love persons.

P33**Responsibility, autonomy, visibility. Are we ready to the primary nursing?**

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Introduction: Primary nursing is an organizational model who allows that one patient is cared for the entire 24-hour day by one nurse who directs and coordinates other nurses and personnel. In Italy this system is not present in nursing care, where functional model or the mini equipe model are the most spread ones. Some advantages of the primary nursing are: continuity of care for the patient; patient-centred care that is individualized, comprehensive, and the professional satisfaction of nurses. In our nursing care we individualized some critics such as the lack of continuity assistance and a fragmented and inefficient communication. The model of primary nursing can overcome this criticism, but are nurses ready to change?

Materials and Methods: A semi-structured interview was conducted on all nurses who work in haematoncology division

to investigate the following areas: satisfaction of personal reasons for change, knowledge of primary nursing, teamwork.

Results: 17 nurses were interviewed. 8/17 have a diploma; 9/17 have a degree. About working experience: 5/17 less than 3 years; 11/17 more than 5 years. Just 5/17 know the primary nursing model and just 3/17 perceive a lack of nursing care continuity in their work. The last question asked whether they accept the planning of a colleague: 17/17 answered yes but with some perplexity due to experience, relationship, primary nurse identification system, trust.

Conclusion: Nurses seem to be available to test the new nursing care model but interviews show a critical state due to relational difficulties, little confidence in the sensitivity of colleagues stressing the importance of communication and interpersonal relationships in the work environment. Experience and qualifications do not affect the approach to the new model and most nurses do not perceive the need for change.

P34**Nursing diagnoses and nursing interventions of children with cancer and care givers**

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Introduction: The aim of this study was to determine nursing diagnosis and collaborative problems of children with cancer and care givers of them and also the applicable interventions of these diagnoses by using NANDA and NIC classification systems. The findings of this study can be good evidence for evidence-based practice.

Method: All children with cancer and their care givers who were hospitalized at paediatric- oncology clinic (N: 50) formed the sample of the research. 1 – General Nursing Assessment Form and 2 – Daily Assessment Form which were developed by using Gordon's Functional Health Patterns and signs and symptoms of NANDA nursing diagnosis, 3-NANDA Nursing Diagnoses List which was developed by literature knowledge and by findings of pilot study at 10 children, 4 – Nursing Intervention Classification (NIC) and Documentation List which was developed by NANDA, NIC Linkage and also findings of pilot study at 10 children, 5 – Nursing Outcome List were used for data collection. Nursing care of children and their care givers was given and documented by two researcher from first hospitalized day to discharge of children by using data collected forms.

Findings: At least hospitalized days of children were 4 days. 24 nursing diagnosis, 4 collaborative problems, 48 NIC and 855 NIC activities were used for children. 16 nursing diagnosis, 25 NIC and 627 NIC activities were used for the mothers. Some activities of NIC have not been applied because they were not profit for children, we have not got material etc. Although real nursing diagnosis of children and care givers had been solved before children were discharged, a lot of risk diagnosis could not be solved.

Conclusion: It can be said that the results of our study can be use for developing nursing care standard, guidance, protocol etc. for children with cancer and their care givers.

P35**Nurses who work in the oncology field issues which they request to be studied from Turkey**

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Introduction: Oncology nurses have a key role in the caring of cancer patients and organizing the care.

Material and Method: The study has been carried out in order to determine the issues which the nurses in the oncology field request to be studied. The data in this study has been collected via a questionnaire that included the open and close end questions. Research is a study in the type of defining the research.

Results and Discussion: Of the nurses including in the study, 54.5% have worked for 1–5 years, 67.5% work in the university hospital, 39% have been graduated from university and 38% have been awarded the associate degree. 20.5% of the oncology nurses have requested the execution of study about the side effects of the chemotherapy and symptom management, 12% about exhausting and impacts of chemotherapy on the health professionals in respects of the issues which they have requested to be studied. When the issues, which are studied, and the study year are compared, 24.4% of the nurses who have worked for 0–11 months, 18.4% who have worked for 1–5 years and 17.4% who have worked for 6–9 years, have requested the execution of study about side effects of the chemotherapy and symptom management, and 17.4% of them about the impacts of chemotherapy on the health professionals and psychological problems of the cancer patients. When one looks at the issues which are requested to be studied in the point of view of the institution where they are employed, 21.5% of the nurses who work in the university hospital, 16.7% in the public hospital, have stated that they have requested the execution of study about the side effects of chemotherapy and symptom management. The issues, which are requested to be studied less, are the expectations of patients from the nurses in 4.5% and the study about the palliative and alternative treatment methods in 6%.

According to these results, it suggests that the nurses, who work in the oncology field in our country, mostly request the execution of study about the side effects of chemotherapy and symptom management. Palliative caring and the expectations of the patients are the issues which are requested to be studied at least. Symptom management takes place in the **European Oncology Nursing Society** research priorities. Two issues show the similarity in the aspects of research priorities.

Conclusion: According to the results of our research, shows that the oncology nurses in our country mostly request the execution of issue about the side effects of chemotherapy and at frameworks of the side effects arising from it

P36**Rapid infusion of rituximab in lymphoma treatment as maintenance therapy is well tolerated**

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Introduction: Rituximab, which is an anti-CD20 monoclonal antibody, is used in many malign and some rheumatismal diseases

as well as mostly in the non-Hodgkin lymphoma (NHL). Rituximab administration is associated with a risk of infusion-related toxicity. It is recommended 5–6 hours for the first infusion and 3–4 hours for the following infusions as the infusion period in the application guidelines. In the studies which are executed, it is mentioned that administrating the rituximab faster is safe in the case where rituximab doesn't develop the reaction and reduces the hospitalization period of the patient. The most frequent side effects of rituximab are fever, feeling cold, asthenia, headache, hypotension, nausea, vomiting, and at the same time, the hematologic side effects like leucopenia, thrombocytopenia. This study has been carried out in order to assess rapid infusions of rituximab.

Method: The patients, who receiving rituximab in Outpatient Unit of the Oncology Hospital of Hacettepe University between July 2006 and December 2008, have been involved in this study. No change has been made in the administration speed of rituximab treatment during the first course, and it has been administered so as recommended in its prospectus. In the patients where no problem has been experienced during this first infusion, 20% of the total rituximab dose has been administered within the first 30 minutes during the second and following courses, and remaining dose within 60 minutes following it. The body temperatures, pulses and blood pressures of the patients have been measured at the initial stage of the treatment and then, per fifteen minutes. It has been recorded whether the vital findings have changed or not.

Findings: A total of 75 patients were treated with 372 rapid infusions of rituximab in combination with corticosteroid-containing chemotherapy have been evaluated. 60% out of patients, who were men, and 41.9% were 60 years-old or older. Almost half of patients (44.7%) were only received rituximab, and 45.3% were received Rituximab, Cyclophosphamide, Doxorubicin Vincristine and prednisolone (R-CHOP) chemotherapy protocol. After the first course, with the rapid infusion application, it has been determined the increasing in the body temperature 5.4%, decreasing in the pulse 1%, increasing in the pulse 1.9%, decreasing in the blood pressure 8%, increasing in the blood pressure 4.8% during total 372 infusions.

Conclusion: Application of rituximab infusion for 90 minutes has been well tolerated. The rapid rituximab administration in the later courses is clinically safe in the cases who are not experienced the problem during the first infusion, significantly reduces the hospitalization periods of the patients in the outpatient units (1.5–2.5 hours) and it is recommended to be administered rapidly.

Topic: Prevention & early detection**P37****Breast cancer prevention with calcium and vitamine D**

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Background: Although some observational studies have associated higher calcium intake and especially higher vitamin D intake and 25-hydroxyvitamin D levels with lower breast cancer risk, no randomized trial has evaluated these relationships.

Methods: Postmenopausal women (N=25 282) who were enrolled in a Women's Health Initiative clinical trial were randomly assigned to 1000 mg of elemental calcium with 400 IU of vitamin D₃ daily or placebo for a mean of 6.0 years to determine the effects of supplement use on incidence of hip fracture. Mammograms and breast exams were serially conducted. Invasive breast cancer was a secondary outcome. Baseline serum 25-hydroxyvitamin D levels were assessed in a nested case-control study of 640 case patients and 640 control subjects. A Cox proportional hazards model was used to estimate the risk of breast cancer associated with random assignment to calcium with vitamin D₃. Associations between 25-hydroxyvitamin D serum levels and total vitamin D intake, body mass index (BMI), recreational physical activity, and breast cancer

risks were evaluated using logistic regression models. Statistical tests were two-sided.

Results: Invasive breast cancer incidence was similar in the two groups (398 supplement vs 410 placebo; hazard ratio = 0.96; 95% confidence interval = 0.84 to 1.02). In the nested case-control study, no effect of supplement group assignment on breast cancer risk was seen. Baseline 25-hydroxyvitamin D levels were modestly correlated with total vitamin D intake (diet and supplements) ($r = 0.18, P < .001$) and were higher among women with lower BMI and higher recreational physical activity (both $P < .001$). Baseline 25-hydroxyvitamin D levels were not associated with breast cancer risk in analyses that were adjusted for BMI and physical activity ($P_{\text{trend}} = .20$).

Conclusions: Calcium and vitamin D supplementation did not reduce invasive breast cancer incidence in postmenopausal women. In addition, 25-hydroxyvitamin D levels were not associated with subsequent breast cancer risk. These findings do not support a relationship between total vitamin D intake and 25-hydroxyvitamin D levels with breast cancer risk.

P38

The effect on knowledge and practices towards cancer early detection of healthy life style behaviours of women who applied the cancer early detection and prevention centre

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The present study has been carried out to determine the effect of attitudes of women, who applied the cancer inspection centre, toward health issues on early diagnoses, knowledge, and implementations. The test subjects were the 307 women who applied the cancer detection and prevention centre in Ordu Province between 01.02.2009–01.05.2009 and were willingly participated the research. The data collection was carried out via a questionnaire consisting of 37 themes developed by the researcher based on the literature. Determination of women's attitudes toward a healthy life style, the scale, entitled "Healthy Lifestyle Behaviours Scale II", developed by Walker et al (1987) was employed. The scale's validity and reliability was earlier specified by Bahar et al (2008). The data was analyzed in SPSS 15.0 programme using percentile determination, arithmetic mean, analysis of variance, t-test, and Mann Whitney U test.

The results have indicated that most of the women know and apply the BSE (Breast Self Examination) but a few regularly carry out BSE. Frequency of women on early diagnosis applications such as mammography, smear test was found very low. The mean values of the scale were not low, and the highest mean was obtained in interpersonal relationships, the lowest one in physical activity. A statistical relationship between women's age, the longest living place, working statue, monthly income, climacteric state, the rate of having relatives with breast cancer and the scores from the scale scores was defined to be significant ($p < 0.05$). The results showed that there is a linear relationship between women's knowledge and applications and their healthy life manners ($p < 0.05$). Those who know and apply early diagnosis applications had higher scores for the healthy life manners' section at $p < 0.05$ level.

The present study has indicated that the healthy life manners of women influence the early diagnosis applications. The results obtained from the public health nurse by the women's healthy lifestyle, early diagnosis in cancer knowledge and practices of education for the development of health behaviour and be active in the early diagnosis indicates the characteristics and is important.

P39

Determination the behaviours of midwives and nurses about using gynaecologic early diagnosis methods

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Aim: The aim of the study was to determine the behaviours of midwives and nurses about using gynaecologic early diagnosis methods at an obstetrics, gynaecology and children hospital in Istanbul.

Method: The study has been studied on the 85 midwives and nurses who accept to attend to study. The research was planned to be descriptive. Data were collected to questionnaire that formed by researchers. Data was evaluated by SPSS statistic programme.

Findings: We determined 36.5% of midwives and nurses were checked up routinely without have any gynaecologic problem and 90.6% of them performed breast self-examination (BSE) but 17.6% of them performed BSE once in a month regularly. We determined also midwives and nurses were controlled breast examination (12.9%), mammography (7.1%) in a hospital but 73% of them were done pap smear screen any time.

Conclusion: We compared with midwives and nurses about using gynaecologic early diagnosis methods. We found that midwives who between the ages of 20 and 31 years old, married, have bachelor's degree and higher education, working between 1 and 10 years in hospital. Midwives were better than nurses at using gynaecologic early diagnosis methods.

P40

A comparison of three educational interventions on breast self-examination knowledge and health beliefs

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Introduction: This study was designed to investigate the effectiveness of various training methods for breast self-examination (BSE) knowledge, practice, and health beliefs.

Material and Method: This quasi-experimental study was carried out in an area where two community health care centres are located, in the city of Trabzon, Turkey. Divided randomly into three groups, 1,342 women were instructed in BSE using individual or group training or were given pamphlets. Data was gathered in four stages: during a pre-training and one month, six months, and twelve months after training.

Results and Discussion: All of the training methods used in the study produced a significant increase in the participants' BSE knowledge, yet individually trained women scored higher than the others did. Regardless of the training method, BSE instruction improved the women's perceived confidence and benefits, while their perceived barriers declined. The variables influencing BSE practice were found to be BSE practice at the pre-training period, perceived confidence in and benefits from BSE six months after BSE instruction, and health motivation one year after training. No significant difference was found in women's BSE performance score one year after training.

Conclusion: This study in which three training methods were used also enabled us to see the effectiveness of instruction on BSE performance and competence. In addition, it provided us with valuable information on how training methods can influence health beliefs related to BSE.

P42**Health beliefs regarding to breast self-examination and self-esteem in a sample of Turkish women academicians in a university**

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Introduction: The purpose of this study was to evaluate health beliefs regarding to BSE and self esteem of female academicians in a Turkish university.

Methods: This descriptive study was conducted at various faculties located in Ondokuz May University, Samsun, Turkey, in 2009. The sample consisted of 104 female academicians. Data were collected using a self-administered questionnaire with the Turkish version of Champion's Health Belief Model Scales (HBM) and Coopersmith self-esteem scale. Descriptive statistics, t-test and Mann Whitney u analysis were conducted.

Results: The percentage of participants who regularly performed BSE was 15.5%. Benefits and health motivation related to BSE ranked either first or second, along with self efficacy. Perceived barriers to BSE had the lowest item mean subscale score in academicians. Family history of breast cancer of participants affected their susceptibility regarding to breast cancer. 72.6% of female academicians have high self esteem. There is no correlation between health beliefs and self esteem of female academicians.

Conclusions: BSE performance among participants was more likely in women academicians who exhibited higher self efficacy and those who perceived fewer barriers related to BSE and mammography. Therefore, it is recommended that in order to increase the rates of regular breast cancer screening, mass health protective programmes based on the HBM should be executed for women.

P43**The knowledge, attitude and behaviours of healthy services vocational students on testicular cancer and testicular self-examination**

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Introduction: Testicular Cancer (TC) is the most frequently occurring cancer and a leading cause of death among young adult males between the ages of 15 and 35 years, and it has increased by 60% in the last 25 years. Awareness of the symptoms of TC is believed to be important to early presentation, and hence, more effective treatment. Although TC is not preventable, it is recommended that young males examine their testicles at least once a month for unusual lumps or swellings. This descriptive study was planned to determine the attitudes and behaviours of health services vocational collage students on testicular cancer and testicular self examination (TSE).

Material and Method: This descriptive research was done with a ¹/₂ sampling method of 93 male students at Erciyes University Health Services Vocational Collage in the 2009–2010 academic year. The response rate was 93%. Data were collected via a questionnaire that was prepared based on information in the literature and under the supervision of specialist. The questionnaire consisted of socio-demographical characteristics, general knowledge on TC and TSE, symptoms of TC, and attitudes towards TC and TSE. Statistical analyses of the data have been carried out by using descriptive characteristics and chi-square analysis.

Results and Discussion: The mean age of the study group was 20.0±4.3 years. Participant students were 18–43 years of age, with 55.9% being in the 18–20 age group. Of the students 59.1% hadn't heard TC and 71.0% of them were not familiar with TSE. Of them 83.9% had had no previous information on TC and 84.9% of them had not received information on TSE before the study. The percentage of those who told they knew how to perform TSE was 16.1% while

11.8% of them have performed TSE before the study. The practice of TSE was not significantly associated with age, level of education, personal history of testicular problems and family history of cancer ($p > 0.05$). Of the students 76.3% stated that they were afraid of TC.

Conclusion: It has been shown that the majority of the students had very poor knowledge on TC and TSE. Although the participants study at the health services vocational collage, it is astonishing that they know little about TC and TSE.

In light of the results obtained from the study it is suggested that health education activities be planned and carried out for health services vocational collage students in order to increase their awareness regarding TC and TSE.

P44**Meta-analysis of self breast examination related studies performed in Turkey between the years 2000 and 2009**

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Introduction: Studies performed by researchers in Turkey about self breast examination reports conflicting results.

Aim: The aim of this study was to analyze the studies performed in Turkey about self breast examination and produce a conclusive, reliable and detailed data to shed light onto the future studies.

Materials and Methods: Studies related to breast cancer and performed in Turkey between 2000 and 2009 (till the end of September) were retrieved from databases by using key words e.g., **breast cancer, breast examination, breast cancer screening and risk factors**. Fifty nine studies were gathered from databases and 17 of them (14 journal article and three thesis) were used in meta-analysis to make comparisons. The studies that were considered in meta-analysis were evaluated in terms of the characteristics of the people who were the subjects of the examination, the time of the study, the place of the study, methods used in the study, variables that were examined, criteria for grouping of variables, statistical methods used, presentation of the test results in published or unpublished studies, the conclusions that were drawn at the end.

Results: Evaluation of the distribution of individuals who performed breast self examination and their demographic properties showed that individuals of age <29 had performed 1.02 times less self-breast examination than individuals of age ≥29 (OR = .0.98 %CI 0.76_1.28). Similarly, individuals of age <20 had performed 1.43 times less self-breast examination than individuals of age ≥20 (OR = .0.70 %CI 0.38_1.31). Married women and women who had a family history of breast cancer had performed more self-breast examination than single women and women who did not have a family history of breast cancer, respectively (OR = 1.02 %CI 0.82_1.63; OR = 1.16 %CI 0.82_1.63, respectively).

According to the health belief model scales, a 1.7 fold **susceptibility** (OR = 1.70), a 1.34 fold more seriousness perception (OR = 1.34), a 3.32 fold health motivation (OR = 3.32), a 5.21 fold more **self-efficacy/confidence** (OR = 5.21) and a 2.56 fold self breast examination benefit perception (OR = 2.56) were detected in women who performed self breast examination.

Conclusions: NCM (Nursing Care Models) caused an increase in self breast examination by women and, thus, it may be suggested that organization and evaluation of such health-related programmes and consideration of women health perceptions might be useful.

P45**Testicular cancer and testicular self-examination knowledge and practice among university students**

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Testicular cancer is the most common form of cancer among young men aged 15–35 years and the incidence is increasing. It is a highly treatable disease if detected in early stage. In Turkey, although much attention was given to education on breast cancer and breast self-examination, few studies has been done for education about testicular cancer (TC), risk factors and testicular self-examination (TSE). Because the university students are mostly in this age group, this study was planned to determine the knowledge on TC, risk factors and TSE among this group.

A survey study was conducted at a university located in Ankara, Turkey. The sample included 634 male students (71% response rate) who volunteered to participate from health sciences, medical, dentistry, education, engineering, science & letters faculties and vocational health school. Data was collected via using a questionnaire which was developed based on the literature consisted 32 items; including 14 statements about perception of TC and TSE using a four point Likert scale.

Almost half of the students (44.1%) had heard testicular cancer during their education and life but majority of participants has lack of knowledge about sign and symptoms of testicular cancer. Only 5.9% of the students (n = 37) indicated that they received information on TSE and 18.7% have performed the practice of TSE before; among them only one in a fourth (n=25) performed monthly. The reason for not doing TSE was mostly (75.5%) not having knowledge, other reasons were “not seen as important” (30.3%); anxiety (11.1%); feeling sinful (6.4%) and guilty (3%).

Majority of them (85.8%) were agreed with the statements of “The thought of testicular cancer scares me”; “TSE would be helpful to detect any lump in my testis” (70%); “TSE can be painful” (53%); while 20% of them agreed with the statement “most of men diagnosed with testicular cancer are in my age”.

Majority of students (85.6 %) who participated in this study stated they want to be informed about prevention and early detection of testicular cancer; they indicated that they prefer to receive information via internet, leaflet and demonstration on the mannequins.

Based on these results, their information needs will be met; adding the education on testicular cancer, risk factors and TSE into their curriculum proposed.

P46**The early detection of cancer in adults: a descriptive study**

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Introduction: Cancers were second cause of all deaths in Turkey. Most cancer might go away, or never progresses, if they are detected early. Most people who get cancer never know it. At least in the past, before early diagnosis they never knew it. The social-demographic characters of persons may be an important determinant of early detection of cancer.

Method: The aim of this study is to evaluate the early detection of cancer in adults at the community health centres. This is a descriptive study. This study was conducted in Yozgat city centre from February 2009 to May 2009. The questionnaire form was applied to adults above 18 year of age (n=1.094). All data were collected through the questionnaire, which consisted of 34 questions relating to early detection of cancer tests and their social-demographic characters. Data were analyzed by chi-square.

Results: Of those who participated in the study, 39.3% were male and 60.7% female, 57.8% had graduated from ≤ primary school, 26.9% were employed for wages, 53% were under forty five years of age,

12% were sixty five and over. Average age was 43.7±16.3. Twenty eight point one percent of adults (male: 42.9%, female:18.4%) smoked the cigarette.

Findings show that 12.1% of adults (male:7.2%, female:15.3%) were made cancer screening tests 42.4% of whose remembered which tests were made. The most of cancer screening tests were first mammography, second Pap smear and third biopsy. The prevalence of cancer screening among adults wasn't different between education levels and smoke cigarette status. Only 22.6% of participants were immunized for hepatitis B.

Conclusion: The obtained results showed that more females, compared to males, more high income compared to low income, more 45–54 aged group, compared to others aged groups were screened cancer tests.

Topic: Specialist and advanced clinical practice**P47****Temozolomide and implications for interventions by the nurse practitioner in neuro-oncology**

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Introduction: The most common primary brain tumour is the glioblastoma multiforme. Randomised clinical trials have proven that prognosis of this and other malignant brain tumour can be improved by Temozolomide (TMZ).

In the setting of a nurse-led clinic the nurse practitioner neuro-oncology (NP) is responsible for the evaluation of lab results and of potential side-effects in patients treated with TMZ and considering interventions in relation to observed toxicities. The NP instructs, prescribes and evaluates patients who are being treated with TMZ. She interprets lab results, toxicity and well being of the patient. Interventions by the NP exist of either dose-reductions or delay of administration of TMZ, antibiotics for PCP-prophylaxis, growth-factor support (GFS) or administration of thrombocyte suspensions. The NP guides the patient and his partner through the process of illness and treatment.

Materials and Method: We compared toxicities of standard schedules of TMZ with a dose-dense schedule to see if observation of toxicities would imply a change in nursing strategies in the management of brain tumour patients. Two groups of patients with high and low-grade gliomas treated with TMZ were evaluated, group A (n=71), TMZ daily for 5 days 200mg/m²/day, every 4 weeks; group B (n=19), TMZ daily for 21 days 75 mg/m²/day, every 4 weeks. Toxicity recordings included blood counts and nausea and vomiting according to CTC criteria.

Results and Discussion: Of observed toxicities during 6 cycles, thrombopenia grade 3–4 was most frequently seen in group A (23%, 16/71 patients, p=0.005). Neutropenia and subsequent interventions occurred more frequently in group A (29%, 15/52 evaluable patients) than in group B (21%, 3/14 of evaluable patients, p=0.74). Subsequent interventions existed of dose-delays (group A 38%, 27/71; group B 26%, 5/19) and dose reductions (group A 30%, 21/71; group B 5%, 1/19). If treated for a longer duration of time with TMZ, lymphopenia grade 3–4 occurred significantly more often in group B in 36% (5/14 evaluable patients) necessitating Pneumocystis Carinii pneumonia (PCP) prophylaxis. There was no difference in experienced nausea and vomiting in the two groups.

Conclusions: Degree of toxicity using a 5 day 200mg/m² or 21 day 75 mg/m² schedule every 4 weeks was similar as observed in other studies. Occurrence of toxicities has led to decision making on necessary interventions by the NP.

Knowledge of brain tumours, its treatment and side effects, prognosis and progression is very important for the NP. Therefore the chance on and the occurrence of toxicities may lead to decision making by the NP together with the responsible physician on necessary interventions. Future research should focus on the effect of these interventions on quality of life of the patient and on adaptation of guidelines for oral TMZ in brain tumour patients.

P48
Nurse-led management of herceptin-induced reduced left ventricular ejection fraction (LVEF): development of a new standard

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Introduction: The HER2 antibody Herceptin® (trastuzumab) is recognized as (adjuvant) therapy in treatment for HER2 Neu positive breast cancer. However, due to its potential cardiotoxic effects Herceptin-Induced reduced LVEF is seen in up to 10% of patients, either asymptomatic or with signs and symptoms of heart failure (HF). As a result a subsequent course of Herceptin may be delayed or cancelled. Close monitoring and standard treatment of HF using angiotensin-converting enzyme inhibitors (ACEi), angiotensin receptor blockers (ARB) and/or Beta-blockers (BB), is applicable in this population to optimally treat the reduced LVEF. Patients as well as health care professionals are therefore faced with a new challenge. This abstract describes the development of a nurse-led patient pathway to offer optimal medical management to this patient population.

Purpose:

- Development of a new standard
- To streamline and standardize treatment and patient information
- To optimize medical management of reduced LVEF due to Herceptin
- To continue adjuvant treatment for breast cancer
- Joined service development (Oncology and Cardiology)

Methods: A prospective interventional non-randomised pilot. The Supervised Nurse Led patient pathway entails:

- Streamlining joined treatment of Herceptin and HF management
- Joined multidisciplinary meetings to amalgamate findings and discuss patient progress
- Requesting and planning of repeat LVEF or Echocardiography
- Arranging swift results to not delay further treatment.
- Joined outpatient visits with Oncology Nurse Practitioner (NP) and Cardiology NP
- Clear and consistent patient information

Results: The newly developed pathway seems to support streamlined care for this patient group. Cooperation between specialities has led to transparency in the joined treatment. Preliminary results show a trend towards prescription of low doses of ACE and BB. It appears to be a patient group with no or relatively few symptoms of HF, NYHA I-II. The LVEF fluctuates between 40 and 60% and seems to be unpredictable, however with a trend towards a decrease immediately post-Herceptin followed by a gradual recovery. It is envisaged to present the developed nurse led pathway and the following data on:

- LVEF pre-Herceptin, during and post treatment
- Tolerated dosage of HF therapy
- Delay in cancer treatment

Conclusion: It is of the utmost importance for oncology and HF services to join forces in providing best practice to deal with the diversity of treatment and information needs of this patient population. The effectiveness of the pathway will be evaluated and further developed throughout the process.

P49

The treatment of patients with Myelodysplastic Syndromes in an era of application of new treatment modalities in an outpatient setting requires a multidisciplinary approach

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Introduction: Myelodysplastic syndromes (MDS) are a group of heterogeneous clonal stem cell disorders that mainly affect the elderly population. The application of novel agents such as lenalidomide and 5-azacytidine may improve quality of life (QoL) and survival. However, these agents are not without side effects in the elderly population already at high risk to develop toxicity. Therefore, a multidisciplinary approach in an outpatient setting is highly instrumental in the treatment of patients with MDS.

Methods: Aging is highly individualized, for that reason we assess at diagnosis the care needs of the elderly in order to organize coordinated and integrated health care. Apart from haematologists our team consists of a nurse practitioner. Guided by the problems we have encountered, the patient consults either the haematologists and/or the nurse practitioner at every visit.

Results: The goals of the multidisciplinary outpatient clinic are to prevent deterioration caused by these new drugs via a proactive approach. The treatment with newer agents or the supportive care in elderly patient with MDS is directed to improve the physical and emotional condition, the QoL and to ultimate prolong overall survival. An important task elicited by the application of new modalities is to anticipate on potential life threatening side effects (e.g. pancytopenia and renal impairment) and to motivate our patients to insist because drugs such as lenalidomide and 5-azacytidine require multiple cycles to exert their effects.

Conclusion: Managing side effects in a group of elderly patients with MDS who have functional limitations, and who are dependent on others or susceptible to multiple illnesses and burdens is very challenging. Fatigue and loss of energy before and during treatment are among the most important sequelae for the patient. Treatment related pancytopenia and renal impairment during treatment can occur and need dose modifications. It is shown by this approach that treatment with lenalidomide and 5-azacytidine is feasible in this vulnerable population. This group of patients can benefit from a multidisciplinary approach in an outpatient setting in which the nurse practitioner functions as a case manager.

P50

A multidisciplinary care – pathway for lung surgery

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Objective: Within the Dutch Cancer Institute/Antoni van Leeuwenhoek hospital (NKI-AVL) already many years lung surgery is offered as a treatment. At one of the surgical departments a multidisciplinary care-pathway for lung surgery has been developed. The main focus in this pathway is on the patient. The pathway describes the preparation for surgery, the period of admission to the hospital and aftercare.

Methods: Preceding the project, a patients' panel has been organized. A number of patients were interviewed in the presence of the multidisciplinary team, concerning topics as the experiences in preparation of treatment, the admission to the hospital and the aftercare. From the evaluation of this panel, a number of problems emerged. Improvements were made, and included in the development of the care-pathway.

We started with a baseline measurement (from April 2006 until November 2007), including subjects as: quality of life, pain score, (pre) hospitalization, duration of the admission, condition of the patient, outpatient visits to the hospital, mobilization of the patient after surgery, and the transfer to a general practitioner. We ended with a re-measuring which took place from December 2007 till December 2008.

Results: The multidisciplinary team has developed a care-pathway in association with the hospital-unit. The care-pathway describes agreements and existing protocols. Per day is described how the patient care must be arranged. By means of re-measuring in comparison with the baseline measuring, it showed that the extent of new-care products results in faster convalescence and dismissal of the patient. The harmonization of care caused a lot of improvements: every discipline involved knows his tasks and the tasks of the other disciplines. Unnecessary duplications of tasks have been removed. There have been task-shifts from surgeon to nurse, and from physiotherapist to nurse.

The role of the general practitioner in the homecare-situation improved through better information. Also the care has been arranged to the newest insights and on swift action in informing the patient, and mobilizing the patient after surgery. Unnecessary care attributions, such as spraying, have been abolished.

Conclusions: A good developed care-pathway provides insights in activities of the disciplines involved in the care around the lung surgery patient. It can lead to task-reorganization, improves the quality of the care and leads to faster convalescence and dismissal of the patient.

Because of the care-pathway the fulfilment of the team has increased. Also the satisfaction of the patient has improved.

P51

Oncology nursing care and patient education of substandard drugs

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Introduction: Cancer patients often obtain substantive medication information only from oncology nurses. However, substandard drugs are not a topic that is usually discussed. This work investigates the potential for substandard drugs, including potential sources, legal, and policy concerns to determine if it warrants oncology nursing discussion with patients.

Methods: Analysis of legal and policy infrastructures that ensure safety of the international drug supply and pharmacoepidemiologic review of confidential industry databases on substandard drug prevalence.

Results and Discussion: Parallel trade, which allows drugs to easily move between countries, Internet sourcing, and a robust globalized counterfeit drug industry creates significant risks of substandard drugs. Government policies that either promotes parallel trade (e.g., EU, Asia) and tacit approval and limited regulation (e.g., USA) result in little effective oversight. Policy accountability for Internet-sourced drugs – a primary source of substandard and counterfeit medications – is nonexistent due to jurisdictional issues and limited international cooperation. Importantly, pharmacoepidemiological analysis indicates fake and substandard drugs are rampant and are not limited to lifestyle drugs, but encompass lifesaving drugs including oncology treatments such as erythropoietin and filgrastim, through drugs provided for pain management in cancer care, such as opiates. Oncology nurses must educate their patients and themselves about the risks of substandard drugs, including the types, sources, and scope of the problem, and be vigilant about this possibility when therapeutic failure in cancer treatment occurs.

Conclusion: Substandard drugs exist widely, and government policies and laws provide limited protection. Oncology nurses must understand the risks, have a high index of suspicion if therapeutic failure occurs, and educate patients on this important clinical issue.

P52

Management of sexual dysfunction in breast cancer

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Breast cancer and its treatment can change the way a woman thinks and feels about her whole body, her femininity, her self

esteem and the way she behaves. The treatment of breast cancer with chemotherapy or hormonal therapy may also affect self image, fertility and libido. Loss of hair and early menopause may constitute a serious threat to a woman's image of herself.

Due to the sensitive nature of the topic, many patients are not reluctant to discuss sexual difficulties with health care providers or to seek help for these problems. This process should begin at the initiation of treatment and should be continued as treatment is completed. The majority of findings suggest that psychological interventions improve the emotional adjustment and social functioning of women with cancer. These interventions can include cognitive behaviour therapy, psychotherapy, psycho-educational therapy, group therapy and family therapy. Health professionals need to convey support, empathy and listen actively. Interviewing patients and their partners can also be of value in determining how best to support and help couples through the traumatic experience.

Oncology professionals should initiate communication about sexual difficulties, perform comprehensive assessments, and educate and counsel patients about the management of these difficulties. Patient education and reassurance, with early diagnosis and intervention, are essential for effective treatment. Patient history and physical examination techniques, normal sexual responses and the factors that influence these responses and the application of medical and gynaecologic treatments to sexual issues are important.

Breast cancer patients with problems of sexual desire and difficulty achieving orgasm may benefit from psychotherapy to tease out physical, psychological, and interpersonal factors contributing to the problem. Behavioural recommendations include specifying sexual practices for health promotion purposes compared to those for pleasure or arousal, use of other sources of stimulation for pleasure, and use of relaxation techniques to help alleviate sexual difficulties. Individual or couples therapy for sexual dysfunction is best conducted by a mental health professional with specialized training in an empirically-supported form of sex therapy.

After treatment, it is important for the health professional to explore sensitively about body image, sexuality and the sexual relationship rather than wait for the woman to bring up these issues. Giving this information to couples gives them the permission to talk about the impact of the illness on their sexuality or the couple relationship. However, this may not always be suitable for all patients.

P53

Assessing Hellenic oncology nurses' knowledge and practice about chemotherapy handling and administration

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Introduction: As the preparation and administration of chemotherapy agents is primarily the nurse's responsibility, the nurse should be knowledgeable about proper procedures for drug preparation, handling and methods of drug delivery. The purpose of this correlation descriptive study of the Hellenic oncology nursing society was to investigate Hellenic oncology nurses' practices and knowledge about chemotherapy handling and administration.

Material and Methods: Study sample was consisted of registered nurses (N=70) working in oncology hospitals and oncology wards of general hospitals. A study instrument of 23 items exploring nurses' practice and knowledge about chemotherapy handling and administration safety measures was developed by the investigators. The instrument had appropriate psychometric characteristics.

Results and Discussion: The majority of nurses were female (91.4%), 36–45 years old (53.2%) and had a bachelor in nursing (75.7%). They worked as clinical nurse (55.7%) in an oncology (40%) or internal medicine ward (25.7%). Most of them reported that they only administered chemotherapy (74.3%). A small percentage (20%) reported that they mixed, prepared and also administered

chemotherapy. Chemotherapy drugs were mixed and prepared by pharmacist/pharmacy technician (53%), registered nurse/assistant nurse (20%) or only a registered nurse (15.7%) in a hood, placed in their clinical setting (50%) or in hospital pharmacy (38.6%). Oncology nurses revealed lack of protective systems and equipments (63%) and just 35.7% of them have taken special precautions. However most nurses (71.4%) were aware of the proper procedures for mixing, administering or safe handling chemotherapy agents. A large percentage (80.0%) reported that they did not use the special gloves for chemotherapy or any other protective measure during administration (78.6–84.3%). The majority of nurses did not attend any educational programme about safe handling and administering cytotoxic drugs (62.9%). However nurses who did attend an educational programme have taken proper precautions ($p < 0.001$). Contrary the attendance of an educational programme was independent of their personal protective practice ($p > 0.05$). Moreover participants' protective practice was independent of their responses regarding their awareness of the international guidelines for safe handling of chemotherapy preparation ($p = 0.056$) and administration ($p > 0.05$).

Conclusion: Most Hellenic oncology nurses reported that they applied the proper procedures for safe chemotherapy preparation but not for administration. The finding of the study indicated the lack of standards regarding safe handling and administration of chemotherapy. Also, the specific educational needs have been revealed. In response to these needs, Hellenic oncology nursing society is planning to organize and implement an updated educational programme.

P54

Optimizing the management of patients with gastroenteropancreatic neuroendocrine tumours (GEP-NETs): initiation of an octreotide LAR nurse home injection programme in Sweden

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Background: Patients with GEP-NETs often require long-term treatment with monthly gluteal intramuscular injections of octreotide LAR. Regular administration of octreotide LAR is important for symptom control and, as shown in the PROMID study, anti-tumour benefit (Rinke *et al*, JCO 2009). Administration of octreotide LAR in non-specialised centres can be problematic and may cause issues with patient management and treatment compliance. A recent study showed only 32% of gluteal injections were delivered into the intramuscular space (Chan *et al*, Eur J Radiol 2006), mainly because of insufficient needle penetration or incorrect injection site. Initial attempts to give our district nurses more training in octreotide LAR administration were difficult, due to time constraints, patient numbers and staff turnover.

Methods: In June 2008, in collaboration with a government-funded healthcare provider, we initiated a nurse home injection programme in which nurses received training in octreotide LAR administration. Patients were informed they could choose treatment at home or at Adxto Care by a nurse trained in octreotide LAR administration, at a time suiting the patient. All patients and their doctors provided informed written consent. During the home-injection period, hospital nurses and doctors consulted with the patients twice a year to evaluate the patients' treatment and experience. The programme was evaluated by an Adxto Care survey, interviewing 18 patients.

Results: Since June 2008, 10 nurses have received specialized training and 43 patients have been enrolled in the programme. Of the 43 patients, 3 have died and 1 discontinued because of adverse events. Of the 39 patients currently receiving octreotide LAR, 32 chose to be treated at home or work, and 7 chose to be treated at Adxto Care. Patients who selected treatment at the centre tended to be older and preferred interaction with centre staff, or

worked close to the centre. Patients who chose to be treated at home ranged from the old and seriously ill to younger, working patients with better overall health. All patients expressed their satisfaction with the service and with the specialist nurses, which we believe has resulted in increased treatment compliance.

Conclusions: The octreotide LAR nurse home injection programme has been successful, allowing an increase in patient care by giving patients the option to choose how they receive treatment from a specially trained nurse. Furthermore, all patients stated a preference for the home injection programme.

P55

The management of extravasation injury

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Extravasation occurs as chemotherapeutic drugs leak out of veins during parenteral application. Temperature increase, pain, swelling, erythema, serious and irreversible local injury and necrosis may be observed. Chemotherapeutic agents are divided into 3 groups as irritant, vesicant and non-vesicant according to their local toxicity degrees.

- Irritant drugs cause pain, burning sensation, temperature increase and local inflammation at the site of injection.
- Vesicant drugs cause local pain, tissue damage, pervasive necrosis.
- Non-vesicant drugs sometimes cause acute reaction.

Treatment and nursing care: Drugs should be administered through bigger veins, vein lines should be monitored, the same vein shouldn't be used twice, thin and flexible catheters should be used, vein should be monitored by the help of transparent plasters, branules should be changed at appropriate periods, catheter should be taken out if there's a burning sensation, vesicant drugs shouldn't be administered through a pre-existing vein line and a new vein line should be inserted necessarily. Extravasations to port pouch or subcutaneous tissue may cause serious consequences. In case of extravasation drug administration should be stopped, extremity should be immobilized, whatever solution left in the line is drawn out, drug solution leaking out to the subcutaneous tissue is aspirated and the needle is taken out. It's important to avoid applying pressure to the site of extravasation and if needed the site should be marked with a pen. Hot or cold compress (depending on the kind of drug) is applied. Extremity is elevated. Antidote of the drug is administered, if the drug has no antidote subcutaneous cortisone or onadron 4 mg with a 25-no needle) is administered. Analgesic or antihistaminic drugs may be used, Hydrocortisone (15) cream may be used 2 times-a-day until erythema disappears.

If extravasation of anthracycline occurs, cold application with ice packages should be performed immediately, 1.5 ml of 50–99% DMSO solution should be administered every 6 hours for 7 days. If mechlorethamin extravasation occurs, 4–8 mls of 1/6 or 1/3 sodium thiosulfate molar solution is prepared with 6 mls of sterile water. One or 2 mls are applied per 1 mg Mechlorethamine or 100 mg cisplatin through IV canule or subcutaneously if canule was taken out. If extravasation of vinca alcaloids occurs, hot compression should be performed to the site. As local injection, 150–1500 U/ml hyaluronidase is prepared with 1–3 ml(s) SF. One ml per 1 ml infiltrated area is applied through IV canule or subcutaneously if canule was taken out. If there's an increase in pain plastic surgery consultation should be requested. Some patient groups (obese, elderly, paediatric patients) are at increased risk of extravasation. Extra care should be taken with all these patient groups.

P56**Infection control precautions in oncology units**

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Infections observed in oncology units: There are immune deficiencies and infections depending on that deficiencies observed in oncology patients who are applied chemotherapy or radiotherapy. Nosocomial infections can be observed in malignant patients in varied effects. Infections in these patients are influenced by bacteria at rate more than 75%, by fungus at rate between 3% and 10%, and by virus at rate of 2%. Rest of these influences is the pathogens such as *Pneumocystis carini*. Infections are also polymicrobial at about 1/3 of all patients.

Infection control precautions in oncology units: Hand-washing and isolation play important role in controlling the infections in hospitals. This is not only valid for this type of patients but also for all other patients who are required to be protected from the nosocomial infections. Before contacting the patients whose immunities are repressed, all surfaces of hands must be washed at least 10–15 seconds by antiseptics. Isolations are divided in to 2 categories such as category and illness. Isolation depending on category is the absolute isolation, contact isolation, respiration isolation, tuberculosis isolation, enteric precaution, drainage-secretion precaution, and body and blood liquids precaution. In practical, standard precautions are the glove, lab coat, and mask to reduce the risk of caught pathogens coming from blood and body liquids. Moreover, there are precautions applied in the forms of contact, driblet, and respiration. It is also possible to determine the method of disinfecting the materials used in treating patients. Catheter infections can be observed in confined patients who are applied intravenous catheter for chemotherapy and fluid injections. Antibiotics are important to avoid catheter infections and treatments of infections. Another important precaution is the super thin HEPA filters having pore radius less than 1 µm used in neutropenic patients' rooms to avoid air contamination. By these filters, ultra clean air is provided for patients at granulocytopenia stage. The efficiency of this method is proved in avoiding aspergillosis.

In summary, in addition to the diagnosis of nosocomial infections in oncology patients, its prevention is also difficult. The infection control precautions suggested for normal patients should be applied systematically and special precautions should be added to the standard ones. Planning and strategies should be developed by considering high cost, consistent effort need, and number of staff.

P57**Project of improving communication and care quality from diagnosis to follow up focusing on patient**

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Introduction: Average hospital stay of patients underwent to robot assisted radical prostatectomy (RALP) got significantly shorten thanks to new surgical approach and nurse care.

Patients are discharged in wealth and manage alone each the post operative presides. An educational programme teaching all the surgical procedures, the possible complications, the drugs prescribed before and after the treatment could short the hospital stay and anxiety.

Aims: Share with patients their pre and post treatment outcomes providing in this way a sense of security. Provide and share written information accompanying the course of treatment from diagnosis to follow up. Create innovative tools to involve the patient in the care. Certificate the educational process.

Materials and Method: A multidisciplinary working group suggested the development of two tools: clinical pathways and patient's diary. The pilot phase has shown encouraging results, useful for a single centre prospective randomized trial enrolling patients from July 21st 2009 up to now. Enrolled patients underwent to RALP and randomized in two arms (20 patients for each arm).

Results: Preliminary analysis encourages the use of clinical pathways for each type of treatment. Through the illustration of the care pathways, there has been a lower state of anxiety both of patients and of their relatives and a rise of the collaboration between patients and hospital staff reaching an "ideal care" for patients, as well as a useful feedback for nurses.

Conclusions: Patients feel active part of caring understanding assistance and therapeutic choice.

P58**A review of nurse-led clinics across the West of Scotland Cancer Network**

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Introduction: In the context of the current health care climate with the reduction in junior doctors' hours, waiting time targets and nurses keen to extend roles, increasingly more and more clinics are becoming "nurse-led" to varying degrees. This is currently the case for cancer in the West of Scotland Cancer Network (WOSCAN) and it is a trend that appears set to continue. These clinics are variable in relation to provision of education and training, succession planning, outcome assessments.

The further development of nurse-led clinics has numerous potential benefits, however, a structured approach is essential to streamline the process, reduce risk and maximise development potential. A review of nurse-led clinics within cancer it was necessary to identify the benefits and challenges, and to provide guidance for future development of such services to support safe and effective change in cancer care. The current status of nurse led clinics was scoped within WOSCAN to providing guidance current service provision and the potential for future development.

Aim: As part of the implementation of the Scottish Cancer Strategy, Better Cancer Care (2008), the aim was to determine the current status of nurse-led clinics in cancer care across WOSCAN, in order to develop a regional framework for practice and future development.

Material and Method: Initially a review of the literature was undertaken on nurse-led services, with a particular focus and emphasis upon nurse-led clinics in cancer care. Then an initial baseline survey questionnaire was sent to all Lead Nurses within each board to identify all nurse-led clinics within their area. Subsequently all nurses providing nurse-led clinics were sent a detailed questionnaire for completion. The questionnaire was divided into three sections; section one pertained to the clinics in general and comprised of questions regarding the nurses' understanding of nurse led clinics, if there were currently clinics that could be nurse led but currently were not and what was required to provide these additional clinics. Section two was completed for each individual clinic and comprised of a number of sub-sections, including: service and patients; staff; absence cover; protocols and guidelines; practice; competence; training; benefits and outcomes (a total of 29 questions). Section 3 allowed for additional comments regarding nurse led clinics. The questionnaire was piloted in each health board area in different clinics and refinements made based upon the feedback of participants and to ensure clarity for participants and consistency in data collection across the health board areas.

Results and Discussion: Data are currently being collected.

Conclusion: An accurate reflection of the current status of nurse-led cancer and inform the development of a framework for practice and future development of nurse-led cancer care clinics is anticipated.

Topic: Psychosocial issues

P59

Level of anxiety of nurses who work with cancer patients

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Introduction: The study was carried out to determine the level of anxiety of nurses working with cancer patients.

Material and Method: The descriptive study was designed with a sample population of 72. The study was conducted in Hacettepe University Adult Hospital Internal Medicine Clinic and Oncology Institute, Ankara University Ibn-i Sina Hospital, Clinical Oncology and Haematology, Turkey. The data were collected using a questionnaire developed by the researchers based on the literature and used with Spielberg Anxiety Scale. Results: Education level of nurses was examined; it was determined 43% were aged 22–28 years, 56.9% were single, 48.6% of nurses were graduated university, 26.4% of nurses were graduated Health Occupational High School. The nurses had been working in oncology units for a mean duration of 4.3 years as a oncology nurse and nurses' total working time were the average 8.8 years as a nurse. It was determined 65.3% of the nurses have been in the mid-level situational anxiety, and 59.7% of the nurses have been the middle level of consistently anxiety. We were detected for nurses study while working with oncology patients who have difficulty of the anxiety levels higher than nurses who do not always and oncology nurses who work willing in their service levels of situational anxiety lower than others. 12.5% of the nurses declared that it is about the financial problem were found in the heavy levels of situational anxiety.

Conclusion: Nurses need to be provided training so that they can develop a positive attitude towards their profession at the workplace. It is also necessary to define the distribution of duties within the team to make sure the work environments conforms to standards, and to conduct regular meetings to increase intra-team communication. Also it is recommended that arrange the work environment to reduce anxiety of oncology nurse

P60

Smoking cessation status of nurses with psychoeducational programme

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Aim: This research is designed as an action research with the purpose of investigating the effects of smoking cessation behaviours among nurses through a psycho-educational programme.

Materials and Methods: Voluntarily selected 52 nurses who smoke at least one cigarette a day and work at Hacettepe University attended this study. The structured programme was delivered in 10 sessions with three follow-ups. Data collection instruments included a Questionnaire Smoking Cessation Status Evaluation, CO Measurement, Brief Symptoms Inventory, Self-Efficacy Scale, and Stress Management Scale. Data of the research are analyzed with packaged SPSS 11.5. Value $p < 0.05$ is accepted for level of significance of statistical tests.

Results: Results indicate that self-efficacy and stress management scores increased significantly while brief symptoms inventory scores significantly decreased after the treatment. In addition, nearly half of the participating nurses quit smoking at the end of the intervention. Although the number of quitters decreased in follow-up sessions, it was still higher than the rate of participants who quit smoking initially.

Conclusions: It is recommended that nurses who are addicted to smoking should receive support through psycho-educational programmes. Such programmes should have a continuity and be expanded.

P61

Psychological aspects of the communication with the parents of children with brain tumours

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Introduction: The complex psychological support in children with brain tumours and their families is the challenge for the use of the multidisciplinary psychological knowledge – neuropsychological, clinical psychology, psycho-somatic, family psychology. The psychological state of the parents, whose children have cancer, is the result of the child's decease and treatment experience and of the individual psychological background of the parent. The effective communication with the parents of the children with the brain tumours is based on the understanding of their individual actual psychological state and copying strategies and leads to the optimization of the psychological well-being in both – mother and child.

Material and Method: The results of the complex testing of 20 children with brain tumours of the age 6–10 years old and their mothers, who were together with the children at the hospital during the course of the complex radio-chemo-treatment were examined. Children Apperceptive Test, projective drawings (for children); questionnaire of Parental Attitude, Personal Defense Mechanism, Level of Subjective Control and Spilberger tests (for mothers) were used as well as clinical conversation. The communication of medical professionals was adopted to the individual pattern of mothers psychological state and copying strategy. In control group the psychological diagnostics wasn't used. Nurses were consulted regarding optimal tactics in communication with every mother.

Results and Discussion: The scientifically well-based consultation for nurses results in the decrease of actual anxiety level of the 60% mothers in experimental group, in development of the parental behaviour pattern and as a result led to the decrease of the anxiety and aggressive reactions in children.

Conclusions: The effectiveness of nurses' communication with the family of children with brain tumours under the complex treatment depends on the psychologically based knowledge and skills. The elaboration of the individual approach in communication has the outcome in the quality of the life – leads to the increase of the psychological well-being of the family and patient himself.

P62

Positive reappraisal of the impact of working with patients who are suffering: a study of palliative care nurse specialists' experience

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Background: Nurses who work with patients who are dying have an opportunity for personal growth but also for experiencing significant negative emotion leading to stress and ill health.

Methodology: A phenomenological study of palliative care nurse specialists to determine their understanding of suffering and experience of working with patients who are suffering. Thirty one experienced nurses were interviewed and the results analysed.

Results: Positive reappraisal was used to cope with the difficulties of palliative care and over time they had developed a clear understanding of their role in the relief of suffering, which in turn influenced their ability to cope. Their learning had been experiential and practice based and had often been gained through their own negative response to the role.

Conclusion: Greater planned support for nurses who wish to work with patients who are suffering may assist in both the care of their patients and their ability to cope.

P63

The effect of meaning of the illness with cancer patients on anxiety depression and quality of life

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Introduction: Cancer is the second highest cause of death among adults in Turkey. Cancer is a life-threatening illness that can challenge the experience of meaning in life. The meaning given to an illness is shaped by the individual's life experiences and includes cultural, spiritual, psychosocial, biologic, and economic factors. Depression and anxiety are generally considered to be the most important psychopathological co-morbidities of cancer patients. QOL is the impact of the disease and/or treatment on the functional status, physical symptoms, affective state, and interpersonal relationships, as evaluated by the person with cancer. In clinical applications, it is important to be known that how the patient should assess his/her disease. This study was carried out descriptively with the aim of assessment the meaning of illness with cancer patients on quality of life, anxiety and depression. An understanding of the relationships of all these factors in cancer patients is needed. This will provide direction for effective nursing interventions, for patients, to enhance their ability to successfully manage the cancer experience.

Material and Method: The study content consisted of the patients hospitalized in the Medical Oncology Clinic of Atatürk University Yakutiye Research Hospital and receiving chemotherapy treatment. It was studied with 110 patients who receiving chemotherapy and being able to communicate and accepting to interview. The period of the data collection was realized between December 2006 and May 2007. The data were collected by means of question form, Meaning of Illness Scale (Mc Adams, Bryne et al. 1988), Hospital Anxiety and Depression Scale (Zigmond and Snaith 1983) and Quality of Life Scale (Padilla 1992).

Result and Discussion: It was observed that the illness in patients with cancer affected family relationship (4.00 ± 1.17) of the patients and occupation, school and home work (4.00 ± 1.18). Anxiety score averages of the patients were higher of interns those of depression (8.54 ± 4.72). It was found out according to Hospital Anxiety and Depression Scale cut point patient who receiving anxiety percent 58, depression percent 60. A total quality life score average of the patients was found 48.83 ± 12.67 . In the result of correlation analysis made among scales, it was found out that there was a statistically significant correlation between the meaning of illness and quality of life, anxiety and depression ($p < 0.01$). It was found out that there was a negatively statistically significant correlation between anxiety depression and quality of life ($p < 0.01$). As quality of life score average increases anxiety and depression score average reduces.

Conclusion: This study results contribute to the evidence that meaning of illness has a direct impact on depression, anxiety and quality of life cancer patients in Turkey.

P64

Coping of family caregivers of cancer patients in Turkey

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Introduction: Cancer affects the functionality of the family system as well as the psychological and physical unity of the patient. Patient's struggling with the illness, his harmony with the treatment and his development of any psychopathology interacts with family dynamics and support systems.

It is stated that cancer patient caregiver family members mostly don't feel ready; they don't have sufficient information about

disease and care and take insufficient support from health care givers. The resistance of the caregivers coping with such negative effects should be supported, their bio-psychological unity should be proceeded and they should develop effective coping mechanisms.

Purpose: This research has been made in order to determine the coping styles of the cancer patient caregivers.

Material and Method: This study had descriptive design. The sampling of the research was composed of 127 cancer patient caregivers. The data was collected by Coping Behaviour Inventory (SBTE) and a questionnaire. The scale has 6 dimensions. These are active planning, outsourcing help, turning to religion, avoidance-isolation (emotional-actual), avoidance-isolation (biochemical) and acceptance-cognitive restructuring.

Results and Discussion: When the coping sub dimension mean scores of the caregivers are examined, active planning is found to be 28.14 ± 5.98 , outsourcing help as 23.05 ± 5.83 , turning to religion as 17.52 ± 4.18 , avoidance-isolation (emotional-actual) as 13.98 ± 5.24 , avoidance-isolation as (biochemical) 3.31 ± 3.20 and acceptance-cognitive restructuring as 17.51 ± 4.25 . The most used coping methods by the care givers are active planning and least used method is (biochemical) avoidance-isolation. Caregivers mostly use active planning, outsourcing help, turning to religion and acceptance - cognitive restructuring as effective coping methods. It is considered that effective coping method using caregivers will be more interested in the care requirements of the patient, will decrease the stress of the patient and will help the patient develop effective coping strategies.

The least used coping method is determined as avoidance. It has been stated in the literature that inconsistent and avoidance coping strategies affect psychological health adversely. Therefore, avoidance is suggested to be an inappropriate strategy for coping with stress. Caregivers less using avoidance (which is not an effective method) much as a coping method is a desired result.

Conclusion: Caregivers use active planning, outsourcing help, turning to religion and acceptance-cognitive restructuring as coping methods. These results show that care givers use effective methods for coping with the patient problems. Educations related with least used non-effective methods can be suggested.

P65

Using an executive coaching model to support the delivery of cancer care in an oncology/haematology department

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Changes in clinical practice and more effective regimens are increasing demand for chemotherapy (Camburn, 2008). Caring for patients with terminal illness is particularly stressful (Hackett et al 2009). Studies continue to show high levels of burnout among nurses, doctors and managers (Davies, 2008), (Firth-Cozens, 2003), (Personnel Today, 2007).

In response to this Portsmouth Hospitals Oncology team engaged an Executive Coach. Coaching is now increasingly used in the NHS for managers and clinical staff (Price, 2009). This despite the suggestion there is little supporting evidence published (Bono et al. 2009). There are some areas of emotional experience for which coaching is appropriate; others for which a psychotherapy is appropriate, with some overlap (Bono et al. 2009).

Method: A trial programme commenced with an Executive Coach using an approach informed by NLP, psychometric testing, cognitive, person centred and social psychology theories. The coaching relationship started with an assessment to ensure the team could support an effective coaching relationship. Expected outcomes for the coaching were explored to ensure they were realistic. Challenges were identified, solutions negotiated, achievable, measurable and realistic outcomes agreed.

Ongoing strategies for achieving outcomes were identified and clarified; limiting factors, enabling strategies and intrapersonal and/or interpersonal issues explored. The coach supported meta-cognition, whereby the coachee notices what behaviours and thought processes are more or less useful as they occur. As coaching progresses meta-cognition develops through these stages (1) Needs help in noticing and understanding behaviour and thinking (2) Notices behaviours and thoughts, needs support in analysis (3) Notices and analyses independently but retrospectively (4) Analyses thoughts and behaviours as they happen (5) Notices when behaviour patterns and thoughts are about to happen and chooses the most empowering and useful in relation to desired outcome.

Discussion: Those receiving coaching reported positive results. Availability of coaching could be expanded by training and supervising team members in the delivery of an in house coaching programme. Some challenges of working in cancer care may be better managed by supervision facilitated by a psychotherapist. It's suggested coaching and supervision would be complimentary in tandem. The team continues to use the executive coach and is currently considering a pilot for a supervision programme designed and delivered by a psychotherapist.

Conclusion: coaching in Portsmouth Hospitals is reported though observed performance and reported benefits to be effective in supporting cancer care. It's proposed that in house coaching would escalate benefits and the instigation of a multidisciplinary supervision programme to support integration and management of the emotional workload in cancer care would complement the coaching programme.

P66

Sexual dysfunction in breast cancer

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With more than a million new cases and more than 400,000 deaths worldwide annually, breast cancer is a major cause of morbidity and mortality. Breast cancer is the most frequently (19.9%) diagnosed malignancy among women in Turkey. The diagnosis of breast cancer and its subsequent treatment may have a significant impact on a woman's body image, self-esteem, sexuality and relationships. Sexuality is a complex process, coordinated by the neurologic, vascular and endocrine systems. Sexual activity incorporates interpersonal relationships, each partner bringing unique attitudes, needs and responses into the coupling. A breakdown in any of these areas may lead to sexual dysfunction. Sexual dysfunction includes desire, arousal, orgasmic and sex pain disorders (dyspareunia and vaginismus).

In breast cancer, sexual dysfunction causes much distress to patients, from the time of diagnosis through to long-term follow-up. Breast cancer present medical and mortality concerns, and alter or remove physical and psychologic symbols of femininity that may result in feelings of decreased sexuality. Confronting the loss of sexual desire, feelings of sexual attractiveness, range of sexual activities, and ability to reproduce is often a seriously neglected area in oncology and great source of distress for the breast cancer patient. Chemotherapy has been shown to be associated with short and long-term effects on sexual functioning. Women on chemotherapy also tend to feel unattractive. Hair loss, weight loss, and sometimes infusion catheters (tubes in the vein for chemo or other drugs) that stay in for weeks or months can interfere with having a positive sexual image for patients. A number of studies found that body image after surgery is a greater problem for women who have had mastectomies compared with those receiving conservative surgery. Negative perceptions of body image among breast cancer survivors include dissatisfaction with appearance, loss of femininity, reluctance to look at one-self naked, feeling less sexually attractive, loss of body integrity, self consciousness

about appearance, and dissatisfaction with scar. Systemic treatment disrupts sexual function by causing premature menopause, with estrogen loss leading to vaginal atrophy and androgen loss perhaps decreasing sexual desire and arousability.

In our society sexuality of the breast has been overemphasized leading women to feel denuded of their femininity if their breasts lose their shape and firmness. Women with breast cancer confront additional stresses and anxieties. Also, in our society, the female breast is seen as an important symbol of both womanhood and sexuality. Many women regard their breasts as a major part of their potential to attract or retain a partner, and surgery is perceived as having a major impact on a woman's feelings of attractiveness and sexual desirability.

P67

Death anxiety levels of the nurses working in the field of oncology

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Introduction and Objective: Cancer, the disease itself and the unwanted effects of treatment in these patients because patients and health workers who care for them during the long and arduous. This study of nurses working in oncology units and levels of death anxiety in order to determine the factors affecting this was built as a descriptive.

Methods: The sample of the survey, a city in western Turkey in the Denizli and working in a hospital oncology unit who agreed to participate in the study constituted 53 people. Research prior written permission from the institutions and participants in the study informed consent was obtained. Data, socio-demographic data form and Templer developed by the (1970) and by Senol (1989) was adapted into Turkish, the 15-item Death Anxiety Scale using the June-August 2009 the meeting between the number and percentage calculations, Kruskal-Wallis and Mann-Whitney U tests and were evaluated.

Results: 50.9% of the nurses 's 31–40 age group, %77.4 married and 69.8% have children is. Nurses, % 58.5 associate degree graduate, %84.9 permanent, %47.2 11–20 years working in the profession and 54.7% 1–5 years has been working in oncology units. 58.5% of the nurses 'i he preferred to work in the unit, and that 54.7% oncology care to patients, caregivers to give to other patients is not different than stated. Nurses, age groups, marital status, have children, training and staff status, occupation and oncology unit working hours, in the unit prefer to work status and oncology care to patients to give opinions about the death anxiety levels between the statistically significant differences were not detected ($p > 0.05$).

Conclusions: Oncology nurses who care for patients, death anxiety levels are not affected by demographic and professional private.

P68

The role of simple gestures in exemplary palliative nursing care

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Introduction: Oncology nursing involves caring for complex and acute needs of patients with life-threatening conditions. Despite skillful interventions, there are times when the care needed by patients and their families is primarily palliative. The author focuses on examples of ways nurses can make the palliative care they provide exemplary but including simple gestures.

Material and Method: This presentation is based on the findings of a phenomenological research study of outstanding Canadian oncology nurses who specialized in palliative care. A purposive sample of 8 exemplary nurses who worked on a palliative care unit in a large urban hospital participated. These nurses were nominated by their peers as those people they would choose to care for them if they were seriously ill or dying. The investigator

spent 40 hours with each participant on the nursing unit observing their nurse-patient interactions. Data were also collected through an in-depth one to one interview with each nurse. Interviews were recorded and transcribed. Data were analyzed using Van Manen's (1997) three processes for isolating thematic statements: seeking overall meaning by holistically looking at the sentences, focusing on sentences or phrases which stand out in the text, followed by a line-by-line scrutiny of the text sentence by sentence. Data trustworthiness was addressed by returning themes to participants to confirm findings, provision of thick description featuring verbatim quotes, and the detailing of an audit and research process trail.

Results and Discussion: The overarching theme was simple gestures. What seemed at first to be very inconsequential nursing interventions appeared to have a large positive impact on the patient's experience. Specifically, the simple gestures identified include helping people live on, individualizing care, defending human dignity, sensitive listening, sharing hope, and keeping the promise to never abandon. Discussion focuses on a secondary finding related to the positive effects providing excellent palliative care may have not only on the patient but also on the nurse. Nurses who provide exemplary palliative care may be transformed into more caring and compassionate people, and more exemplary human beings.

Conclusion: Oncology nurses, including those who specialize in palliative care, are challenged daily to meet the multiple needs of patients and their families. Though state of the art technology, medications and advanced skills may save many lives, there are times when the care that is appropriate is palliative. It is in these instances that careful attention to the power of the simple gesture in providing exemplary nursing care is essential. Attending to the simple gestures and providing exemplary care can be transformative for the nurse and the patient.

P69

Teenagers and young adults living with cancer

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Introduction: Bristol Haematology and Oncology Centre, the regional cancer centre for the South west of England houses Ward 61, an Oncology ward where we admit people for chemotherapy, radiotherapy and palliative care treating people for the side effects and symptoms of their treatment and disease.

We have seen an increase in the admissions of young adults. The psychosocial problems that these young people face can be extreme; they have high dose, debilitating chemotherapy, and surgery which can leave them disabled. The disease changes their relationship with both their peers and their families and has a huge impact on their future. We have had difficulties nursing these patients; they can be argumentative, aggressive and occasionally non-compliant.

Material and Method: As the link nurse on the ward for teenagers and young adults (TYA) I work closely with their Clinical Nurse Specialists; I also work alongside the United Bristol Hospitals Trust lead for TYA and attend conferences where young people and their families describe the issues they have faced.

Working together with my colleagues, the patients and their families we were able to ascertain that there are many issues causing distress; these issues included boredom, feelings of isolation – many patients have chemo regimes which continue for months, so they spend a lot of time away from their families and friends, and a fear that they had no future. Using this information we were able to improve their hospital experience.

We asked some of the young people what would make things easier for them to cope with their time spent in hospital and acted on their responses.

Results and Discussion: Patients did not want to be away from their families and friends in an unfamiliar environment. By communicating with them we were able to ascertain what would make their cancer journey easier. We gained knowledge from other

hospitals and from the TYA. Support systems have been set up with benefits and education advisors. Support groups and a website have been set up specific to their needs; there are information sections as well as forums where they can chat about the issues they face. It's an opportunity to open up to and "meet" with others facing the same problems.

Conclusion: Patients with cancer are on a difficult enough journey without having to deal with all the psychosocial issues which they have to face along the way such as relationships, career choices, having a family and providing for them. Being isolated from family and friends and away from a familiar environment can mean that people get emotional and stressed. As a team in Bristol, we have managed to alleviate some of the problem issues and are able to support our young patients and their families through their cancer journey.

P70

Psychosocial aspects of starting chemotherapy, and the importance of a good "first talk"

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Introduction: Starting chemotherapy can be a very frightening prospect for patients and their families. They may be feeling shock following a recent diagnosis, and have to come to terms with starting a treatment regime which is wholly new and foreign to them. Whilst they will have been given a huge amount of information during the diagnosis and planning stage, arriving for the first cycle of chemotherapy can bring home to them the enormous impact their disease may have on them, their family and their lifestyle.

Material and Method: As a staff nurse working on a busy oncology ward I regularly give the "First Talk" to new patients. This gives me the opportunity to observe how the patient is feeling about their disease and the treatment, and reveals areas of concern for each individual patient.

A review of relevant literature has also identified the factors which contribute to an effective "First Talk", allowing me both to improve my practise and give greater support to the patient.

Results and Discussion: Areas which need to be included in the "First Talk" include the treatment regime and its administration, side effects and their treatment. However psychosocial issues must also be covered, including the impact on the patient and family, body image issues, loss of control, fears for the future, loss, individual responses to treatment and anxiety. The nurse needs to adapt the talk to suit the individual patient, as each person will react differently to a cancer diagnosis and will have different worries and fears.

The nurse should also allow and enable the patient to ask questions, so that they know that their concerns are being taken seriously.

Conclusion: The nurse giving the "first talk" has a vital role in educating the patient about the administration of chemotherapy and possible side effects of treatment. This allows the patient to absorb and reflect on details they may not have taken in originally. It also supports the patient and family and provides reassurance, so that they can continue treatment with reduced levels of anxiety and stress.

P71

Ostomy patients' reconciliation with body image change

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Introduction: The aim of study was to evaluate ostomy patients' reconciliation with body image change after stoma creation operation.

Material and Method: The study was performed in two Lithuanian sanatoriums 2008–2009 years. Patients were asked to answer the questionnaires in the first day of stay in sanatoriums and 3 month after the operation. There were used questionnaires Hospital Anxiety and Depression Scale; Body Image Scale, Ostomate Quality of Life (QOL) Survey and supplementary questions.

Results and Discussion: The results of the study show that in three months after ostomy operation statistically 62.5% of patients had a statistically significantly lower depression ($p < 0.05$).

Patients attitude to the own body change were statistically significantly better in several area three months after operation. Patients (72.5%) had a significantly better attitude towards their masculinity/femininity, significantly more patients (82.5%) could look at themselves being naked, 90% of patients had a considerably lower discontent with a shape of their wound and 85% of patients not avoiding to conversation with other people anymore ($p < 0.05$). Patient's quality of life improved statistically significantly in many areas three months after operation. The results of the study show that in the distant recovery period stress level was statistically significantly lower 77.5% of patients. Physical health 80% of patients, psychological health 75% of patients, self-evaluation 72.5% of patients and sexuality 2.5% of patients were significant better ($p < 0.05$).

Conclusion: Patients' anxiety and depression, attitude to their own body image and Quality of life were significantly better only three months after operation.

P72

Clock time and embodied time experienced by patients with inoperable lung cancer

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In this study we explore how patients with inoperable lung cancer (LC) discuss their experiences of time, based on content analysis of open interviews with 35 patients one year post-diagnosis, using Davies' distinction between "clock time" and "embodied time" as sensitizing concepts. Two interrelated themes were derived: 1. Aspects related to the health care system (HCS), with three subthemes: Waiting times in the HCS, Limited time for patient-professional contact, and Limited time for coordination of services, and 2. Existential aspects, with sub-themes: The future with LC, and Managing an uncertain and finite life with LC. Time could be experienced as problematic for these patients, when limited, lacking, or through long periods of waiting, especially when these periods occurred without adequate preparation or information. This contributed to exacerbation of these patients' existing sense of uncertainty, their perception of care as impersonal and insecure, and their need to remain alert and act on their own behalf. Awareness of the seriousness of their disease and the prospect of a limited lifetime was described as increasing uncertainty about dying and fear of certain death. People also described efforts to constructively deal with their situation by reprioritizing their remaining time, increased appreciation of some aspects of daily life, and living consciously in the present. This analysis suggests a collision between clock time which steers the health care system, and embodied time, as experienced by individuals. Greater attention to psychosocial needs is suggested as one means of positively affecting patients' experiences of time and uncertainty.

P73

Cancer patients and their understanding of their body, disease, health and use of alternative medicine

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Introduction: An investigation showed that approximately 35% of the patients diagnosed with cancer complemented their medical treatment with alternative medicine in Denmark. To these patients the use of Complementary alternative Medicine (CAM) has a psychosocial effect.

It is not common to interview the patients about their use of CAM when they visit the out-patient, but some of the alternative diets influence on the medical treatments for cancer. It has been a taboo to talk about amongst health professionals.

To treat these patients as correct as possible and to be able to give proper advice, it is essential to understand why some use CAM as to understand how they perceive and understand their bodies, diseases and health.

A study was made with a cultural perspective to examine how patients with cancer mammae, lung cancer or colorectal cancer perceived and understood their bodies, diseases, health and CAM.

Material and Method: Based on three theoretical perspectives:

- "Det åbne sundhedsbegreb" by Steen Wackerhausen (the open concept of health)
- "The meaning of disease" by Arthur Kleinman
- "Den komplekse krop" by Helle Johannesen (the complex body)

On a hermeneutic basis 12 patients were interviewed by using a semi-structured interview guide.

Based on Kvale's analysis the interviews were construed.

Results and Discussion: The study showed that the patients had a very complex understanding of their body influenced by multiple dimensions, and if the physical dimension was failing the psychological would become more important. Their understanding of their diseases and health was based on their individual, balanced perception of their bodies. To the patients who used CAM it was very meaningful as a method to improve their way of life and the reasons where often psychological or social.

The cancer diagnosis made great changes for most of them. They did not consider themselves ill, but made space in their everyday lives, where their diseases did not have any room and their bodies' psychological dimension became domineering. Their lives changed with the understanding of their cancer diseases. They changed their way of life towards what they saw as quality of life.

Conclusion: Cancer patients have a very complex perception of their bodies. To treat and take care of these patients properly, health professionals ought to look into their perception of their diseases and health, also to prevent interaction between CAM and the medical treatment for cancer.

P74

Satisfaction after different breast cancer operations – a single center experience: preliminary results

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Purpose: To investigate the quality of life and satisfaction after different operations in patients with breast cancer, which are breast-conserving surgery (BCS) or mastectomy.

Materials and Methods: 40 patients with breast cancer who were operated from November 2009 to December 2009 were chosen. They presented without local or distant metastasis in this period of time and were asked to complete a specific questionnaire regarding satisfaction of postoperative results designed by ourselves. Written informed consent was obtained from all the patients.

Statistical analysis was performed using statistical software (SPSS for Windows, ver.: 9.0, SPSS Inc., USA). Mann-Whitney's U test was used for comparison of distribution of values for unpaired series,

and Fisher's exact test was used for comparison between patient groups. The *p* value was considered statistically significant if <0.05 .

Results and Discussion: Totally 40 patients between 29 and 79 years old (with median age of 49) were enrolled onto the study. 5% were illiterate; 5% primary school graduate, 40% middle school graduate, 25% high school graduate and 25% university graduate. Median time from the operation to the study was 8.5 months. 45% of them ($n=19$) underwent to breast conserving surgery, 52.5% ($n=21$) to total mastectomy.

87.5% of them ($n=35$) were satisfied with the operation and 12.5% ($n=5$) were not. The satisfaction rate was not correlated with the education level ($p=0.402$) and weight ($p=0.549$). The younger patients were more inclined to undergo to a reconstructive surgery ($p=0.002$).

One patient with BCS (5.2%) and 4 patients (19.8%) with mastectomy were not satisfied with the operation. Although not different statistically, more patients were satisfied with BCS.

Satisfaction rate was not correlated with the operation type ($p=0.204$), whereas reconstruction willingness was correlated with operation type ($p=0.007$).

Type of the surgery was determined by the surgeon in 33 cases (82.5%) and by patients in 7 cases (17.5%). Surgeon's or patient's decision for the surgery type was not correlated with satisfaction rate ($p=0.361$).

Conclusion: This study revealed that the type of surgery does affect the desire to undergo to reconstruction surgery ($p=0.007$), whereas it does not affect the satisfaction rate. This discrepancy may be due to inadequacy of our questionnaire and/or due to small sample size.

This preliminary study despite of its small sample size is valuable because it evaluates a very important side of breast cancer. We may conclude that patients are satisfied with BCS and oncology nurses should encourage suitable patients to conserve their breasts. This study should be repeated with more patients using a validated quality of life questionnaire.

P75 Illness perceptions of cancer patients

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Cancer patients are confronted with many stressors, such as cancer diagnosis, medical procedures, treatment side-effects and not least the risk of dying. Thus, most researchers of the psychological effects of cancer have focused on the negative impacts of cancer, such as depression, anxiety, confusion, anger, disrupted interpersonal relationships, vocational difficulties and worsened body image.

Illness perceptions are the organized cognitive representations or beliefs that patients have about their illness. These illness perceptions influence the types of health-related behaviours and coping behaviours which a patient uses for managing their illness and which may impact on treatment adherence and functional recovery. Leventhal et al. describe five components of these illness representations: identity (the name and symptoms that the patient identifies as part of the illness), the cause of the illness, the timeline for the illness, the amount of control the patient perceives they have over the illness and the perceived consequences of the illness on the patient's life. Illness perceptions will evoke different patient responses to the same illness or condition. The strong connections between illness beliefs and physiological/functional outcome in specific illnesses make consideration of the patient perception framework so important to health-care professionals in terms of prevention and cure. Spinhoven et al. found that a reduction of negative illness perceptions mediated the reduction of depression and reduced pain behaviour in patients with chronic back pain. Another study found better treatment outcome in patients with more positive illness perceptions like believing to have control over pain, and that pain is not necessarily a sign of damage, compared

to patients with negative illness perceptions. Hirsch et al. found that, there is not correlation of patient illness perception and cancer stage. Among the disease-severity parameters, time since last treatment and evidence of disease persistence is significantly associated with a negative disease perception.

The patient's perception and interpretation of the illness can be quite different than that of the medical personnel. For example, a cancer patient in remission still has the disease but may deny being ill because he or she is not experiencing any functional disability. The more positive the patient is regarding his or her situation, the more readily she or he will participate in the treatment programme.

The nurse caring for a patient with chronic or terminal illness can help bridge the gap between the medical personnel's perception and the patient's perception. Health care professionals providing occasional care need to understand how the patient perceives his or her illness, the factors that influence that perception and changes that are feasible to alter the perception when necessary.

P76 Psychosocial problems and care giver's burden in patients with cancer

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Beyond being a serious and chronic disease, cancer is perceived as involving ambiguity, reminding death in pain and sorrow and evocating guilt, being left, chaos, panic and anxiety, because it is still considered equal to desperation, unendurable pain, fear and death. Therefore, adaptation and anxiety disorders, depressive syndromes, organic brain syndromes, personality disorders appear in patients with cancer. Cancer is a disease that requires a specific effort in rehabilitation and care management, affects the quality of life of the patient and his family, accompanies with physical, psychological, social, economical problems and causes stress and burden in the patient, family and care giver. Care givers are generally among the members of the patient's family. In case of being healthy to look after the patient, the care giver is primarily the wife/husband, daughter, daughter in law, son and other relatives. Therefore explained that the 74% of the care givers were wives. In the study of Flakerud, among the care givers, 70–80% were wives, 20% were the children, 10% were friends and care giver wives were found to have trouble in the activities at home and with looking after their children. The care givers were also found to have trouble in meeting the physical and emotional requirements of their partners. Several studies have indicated that the majority (80–86%) of the care givers had stress and anxiety, 50% suffered a diagnosed depression, more than the half had been living socially isolated. In addition, it was determined that immune systems of the care givers weakened and healing duration was prolonged because of fatigue or inadequacy in meeting their own physical requirements and that they often get caught viral illnesses and ignore health due to those troubles mentioned above. In the studies about the burden of the patient to his family, it was pointed out that the members of the family were influenced negatively across the problems and that the patients have increased this burden by fear of death and recurrence of the disease. Consequently, well-planned and systematic nursing interventions aimed at psychological factors affecting the burden of care givers and patients, educations on discharge and home care for the patient and the care giver were recommended.

P77**The effect of education given to women with breast cancer on chemotherapy treatment on anxiety levels**

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Introduction: Informing patients about cancer and relevant therapies is considered to be helpful in adaptation process and to enhance quality of life. This experimental study was conducted to evaluate the effect of the education which was given to the patients with breast cancer who would be on a chemotherapy treatment for the first time.

Materials and Method: The study was performed with 44 patients with breast cancer who would go on chemotherapy for the first time in the Chemotherapy Unit of Oncology Hospital. Approval by the Ethical Committee and consent of the participants were obtained. Data were collected with a questionnaire by the researchers and with The Inventory of State – Trait Anxiety and physiological signals that were recorded into the computer. The participants were educated about the process and adverse effects prior to the chemotherapy treatment. Anxiety levels were assessed for four times prior to and after the education, after the sessions of the first and the second cures by scale and device. A biomedical engineer evaluated the physiological signals recorded into the computer. Wilcoxon T, Mann–Whitney U and Kruskal–Wallis H tests were performed for statistical assessment.

Results and Discussion: Mean age of the participants was 47.2±9.5 years. Of the participants, 52.3% had graduated from an elementary school, 77.3% were married, 61.4% had a moderate income, 81.8% had diagnosed in 2 and less months, 45.5% had been coming for the therapy out of the town, and 97.7% had been accompanied with a relative while coming to the therapy. The baseline score of state anxiety was 42.47±3.16 while post education, first and second cure scores were 42.88±3.25, 42.56±4.35 and 43.31±4.95, respectively ($p > 0.05$). Mean score of trait anxiety was 50.34±4.8. The signals of physiological measurements were in accordance with the anxiety levels of the participants. Level of anxiety prior to the education was higher in the participants who were 60 years old and older, graduates of an elementary school, were not married, had a poor income level, had diagnosed for more than 2 months, had come out of the town ($p > 0.05$).

Conclusion: It was determined that the education about the process and adverse effects increased anxiety levels minimally in women with breast cancer after the chemotherapy treatment.

P78**Can I come round for a chat? The impact of CNS pre-chemotherapy visits at home**

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Introduction: All chemotherapy nurses are familiar with the ‘pre-chemo chat’. This is a meaningful experience for both the patient and the nurse, during which patients can explore anxieties and ask questions surrounding their proposed chemotherapy regimen. The need for good quality, patient specific information relating to treatment options is essential at every stage of the patient journey. Historically, time pressures within busy oncology day case units or outpatient departments have led to pre-chemotherapy chats being an unsatisfactory experience for both the nurse and the patient [2]. Consequently, the patients have felt rushed and may not have had enough time to ask all the questions they felt were necessary to ask, considering them to be trivial and minor when everyone is so busy.

The role of the community Clinical Nurse Specialist has opened up better communication channels for patients.

Method and Material: A qualitative study was undertaken in Scotland in 2009 to establish the impact of information given in the home versus information given and retained from hospital consultations. A series of 37 questionnaires were completed by patients and carers.

Results and Discussion: Community Oncology CNS's are a rare breed, however, in Scotland some patients are gaining even more benefit from their specialist oncology nurse who comes to the house before the first cycle of chemotherapy to discuss their concerns, the treatment plan and the likely impact the chemotherapy will have on them as an individual. An added bonus of being in the patient's home is that the nurse can make a more holistic assessment of their situation. A considerable amount of value on the first home visit by the community CNS is placed on her by the relatives and patient.

Conclusion: Most patients had poor recall of information given to them in the hospital. Patients felt able to openly discuss their concerns in the security of their own home. Overall the feedback from the questionnaire supported the demand for specialist oncology nursing care in the community.

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P79**Effect of one-one peer support programme on quality of life of Iranian women with breast cancer**

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Introduction: Peer support programmes are based on the premise that support from others who have through a similar experience can help reduce the negative impacts of this disease; however there is a lack of evidence on the benefits of one-on-one peer support programme in Iranian women with breast cancer. The present study aimed to determine the effects of volunteer peer support on quality of life of breast cancer patients.

Material and Method: Hospitals or home visits soon after surgery was done by trained volunteer breast cancer survivors who listened to patients concerns and shared details of their own experiences. The quality of life of programme participants (N=51) compared to patients who did not participant (N=53) in the programme. The QOL measured by Quality of Life Instrument – Breast Cancer Patient Version scale National Medical Centre and Beckmam Research Institute after surgery, during chemotherapy & radiotherapy and after that in both groups.

Results and Discussion: Data analysis revealed significant difference in total score of QOL, psychological, and social domains of quality of life between two groups, although there was no statistical difference in physical and spiritual domains of QOL in both Groups.

Conclusions: This study suggests that one-on-one peer programme is associated with improvement in QOL in Iranian women with breast cancer. Nurses would be well advised to inform patients with breast cancer about the positive role for psychosocial support intervention, and facilitate early contact between a woman newly diagnosed with breast cancer and volunteer visitors.

P80**Is the health of the spouse affected by tumour disease in the wife or husband? A part of population based register studies of cancer in Southern Health Care Region in Sweden**

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Introduction: A cancer disease not only has direct consequences for the person with cancer but can also affect the life of the partner and the family. The partner is often the closest relative and has an important role in providing both emotional and practical support. Earlier research have shown that partners of cancer patients experience a higher level of stress and lower level of general and mental health compared to the general population, which may imply that they have an increased use of health care. In this study, we focused on how living with a person with cancer affects the health of the partner in terms of health care use and health care costs.

Material and Method: Linked data for health care use, health care costs and types of diagnosis for partners of patients with colon, rectal, lung, breast and prostate cancer (N=11 076) were collected via Tumour registry of Sweden, Census Registry of Sweden and the patient administrative system of Southern Sweden. The period before the cancer diagnosis was compared with the period after (one and two years).

Results: The result showed that health care use increased in terms of in-patient care after the diagnosis, with a significant increase for partners of colon cancer (RR 1.55; 95% CI 1.28–1.87) and lung cancer patients (RR 1.50; 95% CI 1.26–1.97). There was a significant increase of psychiatric diagnosis in the total sample with the highest increase among partners of colon (RR 2.66; 95% CI 1.71–4.22) and lung cancer patients (RR 3.16; 95% CI 2.23–4.57). Circulatory and respiratory diseases also increased significantly in the total sample. Total health care costs increased more than consumer price index for two year after the cancer diagnosis, and increased most for male partners and especially for younger male partners (age 25–64 years).

Conclusion: Being a partner of a person with cancer means an increased risk in psychiatric morbidity as well as physical morbidity. With an increase in cancer incidence, treatments with longer duration and a major part of cancer care provided in out patient setting, means that the demands and burden on the family are likely to increase.

The increased use of health care among partners, claim a deeper knowledge about what needs they have in order to develop optimal care and support. Qualitative studies needs to study the situation of the partner parallel to the person with cancer. This knowledge is needed as a base for further interventional research with the aim of family focused care in order to support both the person with cancer and significant persons in the immediate surrounding.

P81**To live with advanced colorectal cancer – life situation for the ill person and the partner**

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Introduction: Being diagnosed with colorectal cancer today may mean living for a long period of time with the disease and treatment. With an increased number of treatments given in out patient care, the significance of the social network increases. The partner is often the closest person, and may play a vital role in providing

important emotional and practical support. However, the partner also gets affected by him or her self. To provide nursing care during this period, knowledge and understanding about the impact of the disease and treatment on daily life is urgent. The aim of this study was to investigate how the life situation by persons with advanced colorectal cancer and their partners is affected by living with the disease and its treatment.

Material and Methods: Data was collected by qualitative interviews with persons suffering from advanced colorectal cancer and their partners. The interviews sought for experiences of the ill person/partner, with the focus of understanding impact of the disease and treatment on daily life situation. The analysis method used for the verbatim transcripts was content analysis.

Results and Discussion: The findings from the two studied groups showed both similarities and differences. From the ill persons perspective, living with advanced colorectal cancer meant a transition from being healthy to ill with a serious disease. Being treated had a central meaning and was expressed as both being treated and belonging to the system and as being shut out of the system. Focus was mainly on handling the situation, where keeping a normal life was expressed as important. From the perspective of the partner, it meant being affected by the changed perspective of life with new demands, where relations were important along with partners own resources and needs. The findings of the study are discussed in light of previous research.

Nursing care must aim at helping the patient maintaining daily life as normal as possible, being able to continue to work in a feasible extent is of great importance for the wellbeing. A significant finding from a clinical perspective was the importance of treatment and belonging to the system for the person with colorectal cancer. The findings stress the importance of never abandoning the patient, even when there are no tumour treatments left to offer.

Conclusion: Nursing care should also include the partner and his or her needs. This may improve the situation of both the partner and the ill person, and will probably be a necessity in the future from a health economical point of view.

P82**Factors affecting participation in prostate cancer screenings: demographic characteristics, and level of knowledge and health beliefs about prostate cancer**

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Introduction: The objective of this study is to investigate the effect of socio-demographic characteristics, level of knowledge and health beliefs about prostate cancer on participating in prostate cancer screenings.

Material and Method: This study is based on the health beliefs model scale developed about prostate cancer and screenings and the research data collected for the validity and reliability of prostate cancer knowledge test adapted to Turkish. 176 individuals over 40 years of age, who did not have any known health problem, were included in the research by using a sampling method appropriate for the objective of the study. The participants were recruited from public places like coffee houses, shopping centres and polyclinic waiting rooms in Erzurum between January and March 2009. Knowledge scale for prostate cancer and screenings, health beliefs model scale and socio-demographic characteristics form were used as data collection tools. The factors which affect receiving prostate cancer examination and PSA test were assessed by logistic regression analysis.

Results: The individuals who participated in the study were between 40 and 94 years of age, and the average age was 55.4±11.2. It was determined that 69.3% of the participants had an educational status of primary school and lower, 91.5% were married, 73.9% has health insurance and 6.2% had family history of prostate cancer. 11.9% of the participants previously received prostate examination

and 8.5% had their PSA level tested. It was found that receiving prostate examination increased sensitivity perception 2.8 times and high health motivation 2.5 times ($p < 0.05$). It was also observed that participation in prostate examination was not affected by age, education level, marital status, health insurance, family history of prostate cancer, seriousness about health beliefs, barrier and benefit perception, and level of knowledge on prostate cancer ($p > 0.05$). Both the higher level of education and lower level of barrier perception resulted in a 0.3 times increase in the individuals' participation in PSA measurements ($p < 0.05$). It was determined that participation in PSA test was not affected by age, marital status, health insurance, family history of prostate cancer, other parameters of health beliefs model, and level of knowledge ($p > 0.05$). Level of knowledge was calculated to be 5.1 ± 2.5 over 12 points, indicating that the individuals had low level of knowledge about prostate cancer screenings.

Conclusion: Health education providers should be aware of health beliefs such as sensitivity, barrier perception and health motivation which affect participation in prostate cancer screenings, and provide support for the projects designed for increasing the education level in society.

P83

Cognitive expectations of cancer patients receiving chemotherapy – a systematic integrative review

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Introduction: Cancer patients often have their chemotherapy treatment as outpatients and they need proper patient education to manage their illness, treatment and care at home. In order to educate cancer patients, patients' cognitive expectations should be recognized and assessed. Identification of cognitive expectations helps healthcare personnel to understand and support patients in managing their everyday lives during the demanding chemotherapy treatment. Cognitive expectations include the learning process from perception to understanding and mastering knowledge, we use it in here to gather together different related concepts used in earlier research, such as information/learning needs or information/learning expectations or knowledge acquiring.

Material and Methods: We conducted searches from 1996 to March 2009 through Medline, CINAHL, ERIC and Cochrane Library databases. In all, we identified 220 papers during the initial search and included 13 papers in the final review.

Results and Discussion: Patients undergoing chemotherapy want to know as much as possible about chemotherapy treatment in general. Studies identified several specific topics what patients were interested under cancer chemotherapy treatment: chemotherapy treatment related, disease related, social related, future related and patient education related topics. Chemotherapy patient's cognitive expectations vary overtime. In the beginning patients cognitive expectations are broad. Patients want all possible information about their chemotherapy treatment. In the midway of the treatment process, cognitive expectations focus to daily living and coping. During the last months of the treatment, the expectations change over to questions about the future. Patients requested personalized, individualised and understandable information and they expressed to have too much information they did not wanted.

Conclusion: Patients expect to have knowledge about chemotherapy treatment and they expect it to be individualised. This area needs to be studied further to get better evidence and a more multidimensional understanding. In the future a patient's whole learning experience should be studied with a great variety of methods to get a better knowledge about the particular patient's cognitive expectations.

P84

Stress levels of caregivers of cancer patients and affecting factors

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Introduction: Cancer is a disease which has a negative effect on the quality of life of the patient and his family and accompanies spiritual, physical, psychological, social, and economic problems and lead to heavy stress on patient's family and caregivers. Care-giving requires caregiver's whole energy and time although she plays an important part in the support for and helping the cancer patient to lead his life. This study was descriptively carried out to determine the stress level of caregivers of the cancer patients and the factors which affect them.

Material and Method: The data were collected from 96 cancer patients, who participated in the study voluntarily, and whose treatment and follow-up are conducted at Erzurum Ataturk University Medicine Faculty between September and November 2009. Data of patients and caregivers which were collected included socio-demographic characteristics, Bartell Indeks and Care-Giver Strain Indeks. Analyses performed were descriptive and correlation tests.

Results and Discussion: Averages of age of those included in the scope of the study range from 35.6 to ± 13.4 . It was found that most of the caregivers (64.6%) were male and 49.0% were patients' daughters and sons. Stress scores of the caregivers in total were found to be 4.7 ± 2.3 . It was established that gender of the caregivers did not affect the stress level but the stress score averages of female caregivers were found to be higher. It was discovered after the correlation analysis that there was no relation between the age of the caregiver and period of care-giving and level of stress and there was a meaningful negative relation between dependency level of the patient and the stress level of the caregiver.

Conclusion: In parallel with the collected data, it was concluded that stress levels of caregivers were affected more by the dependency level of the patient than the patient's own socio-demographic traits.

P85

Anxiety, depression and anger of Turkish men whose wives were diagnosed with breast cancer

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Introduction: Breast cancer is the most commonly diagnosed cancer (24.9%) type and the most common cause of mortality in Turkish women. Northouse reported that breast cancer could have a significant emotional impact on husbands and children. Breast cancer patients' husband are prone to experience emotional distress and psychological difficulty. Depression and anxiety are generally considered to be the most important psychopathological co-morbidities of cancer patients' husbands. The aim of the present study is to investigate anxiety depression and anger of Turkish men whose wives were diagnosed with breast cancer.

Material and Method: This is a descriptive study conducted through the data of a three year long scientific project (TÜBITAK-107K404 Project-Creating a More Comprehensive Awareness About Care And Receiving Information In Breast Cancer Female Patients and Their Families). The data were collected from 45 Turkish men whose wives were diagnosed with breast Cancer, who participated in the project voluntarily, and whose wives treatment and follow-up are conducted at Erzurum Ataturk University Medicine Faculty between December 2008 and October 2009. The convenience

sample included men (n=45) whose wives had been diagnosed with breast cancer no more than two years. Data were collected included socio-demographic characteristics, Hospital anxiety and Depression Scale, State-Trait Anger Expression Inventory.

Results and Discussion: The average age was 53.8. It was established that most of the spouses of the patients (55.6%) were self-employed and 46.7% were primary school graduates. The average marriage length was 22.0 years. Income levels of 60% of the spouses were middle level. It was discovered that constant level of anger were high and they could not control their anger and had not difficulty in expressing their anger. Anxiety score average of the spouses was 17.7; depression score average was 16.4. These values demonstrate that spouses have experienced high levels of anxiety and depression. After the correlation analysis between the scales, it was found a meaningful negative relation between the anxiety and expressing anger ($p < 0.01$). Spouses with high levels of anxiety have difficulty expressing their anger.

Conclusion: The results of this study carried out within the context of the project emphasize the fact that spouses of the patients with breast cancer should be given psycho-social support.

P86

Life on interferon: a longitudinal, phenomenological study of people with kidney cancer

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Introduction: In the UK, cancers of the kidney account for approximately 3% of all cancers in men and <2% in women (CancerStats, 2009). The median age at diagnosis is 66 years. Until recently, standard treatment for advanced kidney cancer was interferon alpha. Administered by subcutaneous injection three times a week over an extended period of time, interferon is associated with multiple side-effects.

Materials and Methods: The aim of the study was to elucidate patients' experience of receiving interferon for kidney cancer and to determine its impact on patients' lives over time. A longitudinal, phenomenological approach was selected. In-depth interviews were conducted pre-treatment, at weeks 2, 4 and 12, then 3 monthly as long as the participant remained on treatment. All interviews were audiotape-recorded. Demographic data were obtained from medical records and field notes were made. An adaptation of Moustakas' modification of Van Kaam's method was employed to reflect the longitudinal nature of the data.

Results and Discussion: Ten men and three women, aged 46–78 years, took part in the study. Length of time on interferon ranged from three weeks to eight months. Eight participants discontinued treatment because of progressive disease and five because of interferon side-effects.

Forty-seven interviews were available for analysis. Five key components of the interferon experience were identified: self-management; chronicity of treatment; unrelenting side-effects; unpredictability and disruption of life; and uncertainty of outcome. It was possible to elucidate the essence of the experience of being treated with interferon for kidney cancer: being treated with interferon for kidney cancer means patients having to manage their own treatment over an unspecified and potentially extensive period of time whilst enduring unrelenting side-effects that disrupt usual life and make it feel unpredictable, while not knowing what the outcome of treatment will be.

Conclusion: The findings suggest that support based on established self-management programmes is required. This should include: provision of treatment-related information; the design and delivery of treatment specific education related to skills such as injection technique; closer monitoring of patients throughout the course of

treatment; provision of ongoing support; and pertinent preparation and training of clinical staff. Findings may have implications for other groups of cancer patients receiving chronic treatments for disease palliation where effective self-management is necessary.

P87

Perceptions of prostate cancer and prostate cancer risk in men of African Caribbean descent; a systematic review

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Introduction: Men from African Caribbean communities in the UK are at greater risk of developing prostate cancer (PC) and dying from the disease than White men. There is some evidence to suggest that Black men have less awareness of PC, are more embarrassed by their symptoms and are more reluctant to attend their doctor with PC symptoms than White men. However, research evidence regarding African Caribbean men's perceptions of both PC and their risk of developing it has yet to be appraised and synthesised. We conducted a systematic review to appraise evidence from studies investigating perceptions of PC and PC risk in African Caribbean men.

Materials and Methods: The following databases were searched: Medline, PsychINFO, CINAHL and Cochrane Database of Systematic Reviews. Studies were eligible for inclusion if they were written in English and investigated perceptions, knowledge of symptoms and risk of PC among African Caribbean men. Studies of any design were included. Data were extracted systematically using standardised forms developed by the research team. Data were extracted independently by two reviewers. No papers were excluded due to low quality; results from poor quality studies were given less weight in the discussion. Themes reported in qualitative studies were synthesised using comparative thematic analysis. Findings from quantitative or mixed method studies were incorporated into these themes.

Results: The search identified 373 papers – 25 fulfilled the inclusion criteria. 12 were qualitative exploratory studies while 13 were cross-sectional surveys. All were conducted in the US. 603 people participated in the qualitative studies (sample sizes ranged from 9 to 104). 5267 people participated across the observational studies (sample sizes ranged from 27 to 1504). Ten themes were identified in the literature: perceptions of prostate anatomy & function; causes and symptoms of PC; PC risks; screening methods and treatment; barriers to PC screening and prevention; PC as a threat to masculine identity; fear of cancer; mistrust of the health care system; poor patient-provider communication; lack of access to health care; and factors promoting PC awareness including faith and community partnerships.

Conclusion: African Caribbean men are at relatively high risk of PC. However, their perceptions of men's health issues, risk of PC, treatments for PC and trust/mistrust of healthcare services are likely to impact greatly on early/late presentation with the disease. This in turn will impact on morbidity and mortality. Unfortunately, no research has been conducted to date in either the UK or Europe more widely. This clearly hampers our understanding and current ability to develop culturally sensitive interventions to enhance knowledge and understanding in this under served group.

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P88**Unmet needs, quality of life and symptoms of anxiety and depression among family members of cancer patients**

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Introduction: Family members of cancer patients have multiple needs, many of which are not met by health professionals. This may affect emotional distress and quality of life (QOL) and therefore clinically relevant. The purpose of this study was to identify unmet needs, QOL, symptoms of anxiety and depression and to examine the relationship between those variables.

Material and Method: A cross-sectional, descriptive design. Family members of 332 cancer patients at Landspítali agreed to participate and 223 (67%) completed the study. Data was collected with Family Inventory of Needs (FIN), Quality of Life Scale (QOLS) and the Hospital Anxiety and Depression Scale (HADS).

Results: Out of 20 needs the mean (SD) number of important needs was 16.60 (4.30) and mean (SD) number of important needs met was 9.91 (6.08). The need most often met related to patient care (79.9%) and the need most seldom met related to having information about people who could help with problems (49.4%). At least 40% of participants considered 12 out of 20 needs to be unmet. Women experienced higher number of needs than men ($p=.02$) and were more likely to have unmet needs ($p=.02$). There was no difference between the number of needs identified by spouses and other family members, but spouses were more likely have their needs met ($p<.05$). Younger family members (≤ 55 y) had a higher number of needs ($p=.04$) than older ones and they also had a higher number of unmet needs ($p=.00$). The mean (SD) QOL score was 84.88 (14.72), similar to what is reported for healthy populations. Spouses scored lower than other relatives, indicating worse QOL ($p=.02$). A weak positive significant relationship was found between number of unmet needs and QOL. The mean (SD) anxiety score was 5.5 (2.8) and the mean depression score was 7.3 (2.7), both higher than among the Icelandic population and among cancer patients starting chemotherapy. Women experienced more symptoms of anxiety than men ($p=.01$) and those who showed symptoms of anxiety had a higher number of unmet needs than those who did not ($p=.02$).

Discussion: Despite concentrated efforts to the needs of families of patients with cancer a high number of family members experience important needs that they perceive not to be met by health care professionals. Some background characteristic may aid in identifying those at risk. Unmet needs can be linked to adverse outcomes for family members and therefore it is important to identify and attend to those needs.

P90**Screening for psychosocial distress in patient suffering from lung cancer**

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Introduction: About one third of lung cancer patients suffer from psychosocial distress. The poor prognosis of lung cancer itself, the feeling of guilt and shame related to nicotine abuse and the presence of complaints such as dyspnea and pain increase the risk of mood disorders. Screening for psychosocial distress is recommended in order to early detect the need for specialized psychosocial assistance. Distress thermometer (DT) is a widely studied screening tools for measurement of distress rate. DT ask the patient to self report their distress rate on a visual analogue scale from 0 (no distress) to 10 (extreme distress). The measurement of this "overall distress score" is combined with the evaluation of

psychosocial distress using a problem list which includes items that address various social, emotional, spiritual, and physical problems. Dutch national guidelines for oncologic care have recently chosen this instrument for the routinely screening of psychosocial problem in patient suffering from cancer.

Material and Method: Retrospective analysis of the measurement of psychosocial distress rate in patient suffering from lung cancer. In a period from 2007 to 2008 were 47 patients screened using DT.

Results: The mean (\pm standard deviation) DT distress score was 5.0 ± 2.3 women ($n=21$) and 4.3 ± 2.4 men ($n=26$). This difference was not significant. Men scored higher for problems such as finance, loneliness and faith. The mean DT distress score of patients older than 70 years (4.5 ± 2.1 , $n=17$) was not significantly different from those of younger patients (4.7 ± 2.5 , $n=30$). Patients older than 70 years scored higher for problems such as diet, relationship with partner and loneliness. The time of DT measurement was variable. The mean DT distress score was 5.0 ± 2.8 during the diagnostic phase ($n=6$), 5.1 ± 2.4 before the start of the therapy ($n=21$), and 4.6 ± 2.4 after the start of the therapy ($n=21$). No significant difference was measured between these different times of measurement.

Conclusion: DT is an easy to use screening tool for detection of distress problem in patient suffering from lung cancer. Our analysis suggests that factors such as patient gender and age but also time of measurement have no influence on the patient distress score. However, the amount of patient analysed in our retrospective study was too small to show statistically significant differences. These results are actually prospectively studied in a larger population of patients.

P91**From initial breast cancer visit to hospitalisation: taking care of women with breast cancer pathology**

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Background: Affliction from cancer diagnosis is devastating for woman and her family; dealing with breast cancer can be very hard for a woman and her family. In a situation in which the woman is put on a waiting-list and leaved home waiting for the hospitalization call, the most frequent question that might arise are: "Who's taking care of her during this period, with who she can talk, who will comfort and reassure her?" The average waiting-time is very high: 2.3 and 4 months in relation to the seriousness of the problem, and it causes 42.8 admissions cancellation per month.

Objective: Provide assistance and support to women waiting for a breast-cancer surgery admission.

Materials and Methods: Activation of an 'admissions office' followed by a specialist nurse dedicated to programming and telephone calls information; establishment of a shape/a new kind of professional who supports the specialist (in senology) in the outpatient activities; creation of homogeneous, multidisciplinary and psycho-educational groups addressed to pregnant patient; preparation of information materials.

Results: From 23 October 2007 to May 27, 2008 have been organized 7 group meetings attended by 35 women. During the sessions came out issues related to surgical and psycho-social area. Later (one week after the group meeting) were contacted by telephone 7 women who have given various suggestions pointing out further problem of cancellations: 6 women out of 11 have cancelled their hospitalization, 2 of them were unable to get organized, one of them was afraid to share her experience. Only two women over 11 accepted the hospitalization. Currently, dozens of patients who call every day are able to have some more accurate/definite answers than we did in the past. Our goal is to be successful in giving to

woman recently visited an estimated data of his hospitalization. Most women said that the group and meeting with professionals is a useful tool to contain distress/anxieties and prepare patients for surgery thanks to information provided and familiarity with the place and the people of the Institute.

Conclusion: (a) Thanks to the activation of this service women in waiting-list should perceive that they are not leaved alone. (b) The service provides immediately detailed information on which the woman and her family may decide what to do. (c) The re-organization of the list has also rationalized the emotional aspect, not only the clinical one

P92

Screening for distress: moving toward person-centred cancer care

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Introduction: Cancer and its treatment have more than a physical impact. There are social, emotional, psychological, spiritual and practical consequences for the patient and family members. Some will require more assistance than others to cope with the situation. Comprehensive cancer care calls for attention to the full range of needs across the cancer journey. Care needs to incorporate person-centred approaches rather than focus exclusively on tumour centred care. Programmes entitled “screening for emotional distress (6th vital sign)” have been used as a driver to move us toward person-centred care in four jurisdictions in our country. These “early adopters” will help us learn about best practices for implementing this type of programme and achieve the desired practice culture change.

Materials and Methods: Guidelines for implementing distress screening programmes have been developed and are being used to guide the implementations in four geographical locations. The work is based on a newly developed Practice Guideline for Psychosocial Screening and Assessment. A quality improvement framework, using rapid cycle approaches, is integral to the implementation.

Results: Implementation is underway, but unfolding in different ways in each jurisdiction. Each jurisdiction is being studied as its own case study with the intention of identifying the common principles and crucial success factors for future implementations in other jurisdictions. Psychosocial education of cancer care staff and having clearly defined algorithms for action are emerging as critically important aspects for successful implementation.

Conclusion: This presentation will be helpful for those cancer programmes that are interested in identifying cancer patients who are in need of specific psychosocial intervention in a timely manner. Oncology nurses have a key role to play in the successful implementation of this drive toward person-centred cancer care.

P93

Attitudes and experiences of nurses towards death and caring for dying patients in Turkey

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Aim of this study was to examine Turkish nurses' attitudes and experiences toward death and caring for dying patients. Descriptive and cross-sectional type of this research was conducted at two universities and one state hospitals located in Ankara, Turkey. Nurses working in adult inpatient clinics at these hospitals were invited to participate from July to November 2009 and total of 300 nurses were responded.

In data collections, 35 items questionnaire which includes socio-demographics, end of life care education and their experiences of caring for dying patients; besides the Death Attitude Profile-Revised (DAP-R) and Frommelt's Attitude towards Caring for Dying Patients (FATCOD) were used. Turkish translation and validation

has been done for this study and reached good level (Cronbach's alpha for DAP-R: 0.80 and FATCOD: 0.73). Data analyzed with using descriptive, one-way ANOVA, chi-square, correlation and regression tests. Mean age was 28±4.9; majority of them were women (87.7%), single (57.4%), has BSN degree (70%), mean working years in nursing was 6±5.5, has strong religious belief (52.3%) and indicated that their religious belief are a strong influence on their attitude toward death and dying (45%).

Most of them indicated direct involvement with caring for dying patients (83.3%); experiencing grief (37.5 %), helplessness (34 %) and not want to care for dying patients (62.3%). Most cited coping strategies were “try to view death as a natural part of life”; “praying” and “talking with friends”.

Majority of them (82%) were not comfortable to talk about death with their patients and 88% were agreed with “the family and friends of the patient should be permitted to visit at any time”. Most of the nurses (92%) stated the importance of respecting to dying patient and families religious belief and cultural values.

The mean FATCOD scores (100±8.7; range 77–129) showed less positive attitudes when compared with other studies in literature. Statistically significant relationships were found among marital status, working years in nursing, level of education, previous experience with caring for terminally ill patients, religious belief and scores on the FATCOD and DAP-R ($p < 0.05$).

Lack of education and experience, as well as cultural and professional limitations, may have contributed to the negative attitude toward some aspects of the care for people who are dying among the nurses surveyed. Creating a reflective narrative environment in that nurses can express their own feelings about death and dying could be potentially effective approach to identify the factors influencing their interaction with the dying. Continuing education may be required for nurses in order to improve the patients' quality of care at the end of life.

P94

Family and working life in women with breast cancer in Latvia

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Introduction: The breast cancer is a chronic disease that may often have a relapse. Patients' survival rate depends on the frequency of relapses, which commonly is defined by the phase and the histology of tumour. Recent investigations show that psychosocial factors are also has a great influence on development of metastasis and the survival rate of the patient. In the focus of this investigation were work and family in women with breast cancer.

Material and Method: Monitoring was spent from the 1997 to 2009. There were 1658 women in the age of 25–79 years old with breast cancer.

Results and Discussion: The results showed that more than 75% of the patients were still working after the diagnosis was defined, 12% during the course of chemotherapy and radiotherapy. The main reason to be employed was the absence of social guaranties and very low level of material security. Overall 82% of patients returned to their previous job. Leading factors promoting occurrence of relapses and reduction of a life were conflicts at work, overtime hours, shift work, work in a night shift. More than 50% of women considered themselves to be a victim of the conflicts at work. The positive influence of returning to labour activity on life expectancy was established only in 6% of cases in patients with breast cancer. The marital status of women renders an essential influence on occurrence of the relapses of disease and life expectancy of women with breast cancer. The most vulnerable group are the single or divorced women in the age of 40–50 years. Married women felt negative influence of such factors, as “false sexual unattractiveness ” and “a complex of the invalid”. The maximal positive influence of family attitudes was established in the women who were married more than

20 years, having adult children and steady communication between members of the family and generations. In 26% of cases the obvious and latent uncooperative attitudes in family caused development of relapses of disease and reduction of life expectancy. Among these reasons – alcoholism (25%), narcotism (10%), matrimonial changes (7%), “biological incompatibility”.

Conclusion: The results of supervision confirm the assumption that leading psychosocial factors, such as stress at work and family attitudes which could be provoking in occurrence of breast cancer, continue to render essential influence on development of relapses of breast cancer and life expectancy of women.

P95

Planned interviews about sexuality to men with genitourinary cancer

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Introduction: Within the existing health care to Dutch men with genitourinary cancer sexuality is limited discussed by both doctors and nurses. Former research showed that patients experienced information needs about all aspects of sexuality. Sufficient information about sexuality and the possible changes in sexuality as caused by the treatment for genitourinary cancer reduces bother and will improve the quality of life. Nurses should intervene in this information need. Previous international studies have shown that effective interventions exist for nurses to discuss sexuality with male genitourinary cancer patients. None of these interventions has been tested in the Dutch health care system. In this study a nursing intervention to discuss sexuality with male genitourinary cancer patients, suitable for the Dutch health care system, was developed and evaluated.

Material and Method: The nursing intervention consists of two planned interviews performed by the same oncology nurse with male genitourinary cancer patients who will receive a surgical treatment. The first interview takes place a week before the surgery, the second interview is held six to eight weeks after surgery. The following topics were discussed in the interviews: sexual functioning and possible changes after surgery for genitourinary cancer, the patient experiences with sexuality, coping with changes in sexual feelings, feelings of masculinity and the sexual relationship, and are there uncertainties and myths about sexuality. The study was conducted in a one-group pre-test – post-test design. To evaluate the nursing intervention a newly designed questionnaire was used.

Results and Discussion: The results of this study show a positive evaluation of the two planned interviews on sexuality by one oncology nurse. The questionnaire used for the evaluation of the interviews had an internal consistency of α 0.82 and proved to be a practical instrument for evaluation of a new nursing interview intervention. The two planned interviews on sexuality seem to provide the need for information about sexuality as shown in previous international research. Although the opinion on the timing of the interviews showed much spread, the average was considered positive. Also the new nursing intervention proved to be well applicable in the Dutch healthcare system.

Conclusion: This study has shown that a nursing intervention to discuss sexuality in two planned interviews is positively evaluated by men who undergo surgical treatment for genitourinary cancer. Future research is necessary for a ruling on the impact of the planned interviews on sexuality. Preferably this will happen in a randomized controlled trial.

P96

Qualitative research regarding the needs of the relatives who care for patients with a high-grade glioma in the palliative phase

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Introduction: The neurological decline, like cognitive problems or epilepsy, have major impact in standing and wellbeing of the relatives of patients with high-grade glioma. The patient will be transferred to the General Practitioner (GP), after the treatment is terminated. A GP will be confronted on average once every five years with a glioma patient, thus lacking knowledge of the specific care. Little is known about the palliative phase of a patient with a high-grade glioma and their relatives. We do now that the oncology care is fragmented, with a lot of transfers. The standards of information exchange and direction are because of the previous remarks, high. These standards are not being met. A qualitative research has been done to gain information about the needs of the relatives who care for patients with a high-grade glioma in the palliative phase in their own home.

Method: Choosing exploratory qualitative research is threefold. The first remark is that little is known about the needs of the close relatives and caretakers of patients with a glioma in the palliative phase. Qualitative research is has an exploring nature, thus gaining more knowledge on this barely researched subject. Furthermore is the population on which the research is applicable, small. In total there were five semi-structured interviews. The relatives of patients who were treated in the Isala Klinieken Zwolle with a high-grade glioma have been interviewed.

Results and Discussion: Six main themes were distilled from the qualitative data. The need of clarity, information and communication, support by altered behaviour, emotional coping, conservation of the relation and support by practical matters. This research gave more insight regarding the needs of the relatives who care for patients with a high-grade glioma in the palliative phase in their own home. However, it is hard to make general conclusions because of the small research population. Literature comparison gave more insight and parallels. Gaining clarity, information about the future, management of symptoms and where to go for practical or moral support are important for the patient and his relatives. These needs are the same as other oncological patients. The cognitive and behavioural problems are specific for this group.

Conclusion: Patients with a high-grade glioma have to deal with a disease with no curative treatment. Symptoms are complex and the situation differs in each case. A clear point for the relatives who is specialized in the problems related to a high-grade glioma during the care pathway appears necessary not only in the palliative phase. A specialized nurse seems to be ideal to be that clear point. Mapping assessment-methods is needed for structured evaluation of care in the palliative phase.

Topic: Survivorship & late effects

P97

What women want; support with & beyond cancer, closer to home

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Introduction: 550,000 people are alive in the UK today who have or have had a diagnosis of breast cancer. This includes people who are cancer free or living with active disease as described in chapter 5 of the Cancer Reform Strategy [2]. The need for choice and treatment closer to home along with the provision of better

long-term support to help patients to live beyond their initial cancer treatments is highlighted. This entails supporting and empowering patients throughout their cancer journey. The Healthcare at Home (HaH) oncology breast CNS provides a community based breast care service which delivers the service changes envisioned by the Cancer Reform Strategy. Services are aimed at supporting patients with all stages of breast cancer through their changing care needs.

Method and Material: Case studies are used to describe a variety of the service elements, as seen through the eyes of the patients who access the community CNS support services. The focus of care is on allowing patients to live with & beyond cancer; to lead as normal a life as possible.

Results and Discussion: The homecare CNS is best placed to recognise the needs of individuals and facilitate the delivery of care that meets those needs. Most cancer services have traditionally been based in secondary care, however, many of these could be delivered in a community setting or at home.

Conclusion: Patient feedback and quotes demonstrate that they feel supported through their changing care needs. The delivery of a high quality community CNS-led service enables patients to regain control of their lives and live with and beyond cancer. The following quote summarises to value of this service.

Christine (breast cancer patient – diagnosed in 2002): ‘The CNS ensures that complementary and support/drop-in session are available, not in a hospital environment but in hotels where lunch and laughter are as important as the issues common to all women facing this challenge in their lives. My CNS’s achievement to give us our lives back is for all to see and shout about. Cancer is not just physical – it plays on your mind.’

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P98

The uniqueness of the experience of cancer survivorship

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An increase in the numbers of cancer survivors has been noticed as stated by several authors. This raises a feeling of accomplishment by all the participants. The survivor tends to be seen as “lucky”. There exists a raising awareness of the needs of this specific group but we tend to look at them from a research point which is very useful. However, what does it mean for the person to be a cancer survivor? What is their reality? As methodology case study was chosen because it is a good way to reflect on the uniqueness of each person.

This is the case of 44 year old Ann. She is married and has a 14 year old daughter. She was diagnosed with rectal cancer in December 2007. The proposed treatment was anterior resection of the rectum with temporary colostomy followed by chemo and radiotherapy. Support about ostomy care was provided by an ostomy nurse and had a good adaptation. During this time she was often sad and anxious. Her major concerns were related to surviving the disease, get the colostomy closed and reassume work. She coped with this reality and had a supporting family.

The response to the treatment was good and in January 2009 the colostomy was closed and one month later she got the indwelling catheter removed. She referred to the day she got the indwelling catheter removed as one of the happiest days she ever experienced. In June 2009 she returned to work at the same place being a waitress. It was a sign that the disease was gone and everything would return to normal.

In November 2009 she had her follow-up exams and appointment where she was told that she remains free of the disease. After receiving this notice, she talked about her present life. The recurrence of the disease is still a current fear especially when the follow-up appointment is approaching.

A huge concern is the partial faecal incontinence she faces, due to a very low colorectal anastomosis, which makes her use a diaper so that she can feel safe. She worries about the smell and the need to feel clean. This has an impact on her social life contributing to the avoidance of family and friends meetings. She referred complaints about the implications on her sexual life, where spontaneity is conditioned by her incontinence.

When reviewing the knowledge about her eating habits the most important aspect was her non consciousness of the influence on her incontinence. She stated that the information given beforehand was forgotten because at that time it was neither important nor pertinent.

One of the conclusions she emphasized was the need to learn to live with a new reality she was not prepared to.

What implications for nursing? The experience of living with and surviving cancer is personal and unique. Nursing interventions have to be tailored to each person.

P99

Women’s experiences with breast prosthesis

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Introduction: The use of a breast prosthesis appears to improve body image in women who have undergone surgical intervention due to cancer. However, women who opt to wear conventional breast prosthesis are often dissatisfied with various aspects about it. Women report dissatisfaction with incorrect fit, restrictive choice of clothing and difficulty dressing, discomfort, weight and cost. A new type of prosthesis, an artistic custom prosthesis, offers the opportunity to simulate the missing tissue more realistically. The prosthesis is individually designed to conform to the surface of the skin of patients and is held in place through various methods. This new type of prosthesis has been made available to women with breast cancer on a pilot trial basis.

Material and Method: A convenience sample of women was accrued from a tertiary cancer centre. In-depth pre and post interviews have been conducted with women who agreed to try this custom artistic prosthesis. Their experiences have been contrasted with using a conventional prosthesis. In addition to documenting the experiences of these women, quality of life and satisfaction with care data have also been gathered using standardized scales (EORTC QLQ-C30 and BR-23; Ambulatory Oncology Patient Satisfaction Tool).

Results and Discussion: A total of 37 women who used a conventional prosthesis and 31 women with the custom prosthesis engaged in the trial. The results of the standardized scales did not show statistical difference between the two groups, but the interview data revealed clear benefits with the custom prosthesis in terms of comfort (fit, look, weight) and psychological outlook (feeling less like a victim, feeling more normal). The women made several suggestions for improvement of the device which have led to the development of a new version.

Conclusion: A new approach to custom designing of a breast prosthesis has had positive impact for women living after their breast cancer diagnosis and treatment.

Topic: Symptom management**P100****A pan-European survey relating to cancer therapy and neutropenic infections: nurse and patient viewpoints**

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Introduction: Patients undergoing chemotherapy face the risk of neutropenia and subsequent infections. The current perceptions and issues relating to cancer therapy and neutropenia/febrile neutropenia (FN)-related infections were explored by a pan-European survey* to identify gaps in understanding between cancer patients and healthcare professionals.

Methods: The parallel survey was conducted by PatientView for the European Oncology Nursing Society (EONS) in nine European countries (Austria, Belgium, France, Germany, Italy, Ireland, Spain, Sweden and the UK). Participants were nurses (n=218) identified by EONS. Patients (n=475) both male and female, of all ages, with a variety of cancers were identified by patient advocacy groups.

Results: The results from the parallel survey showed that more than nine out of ten (95%) nurses stated that preventing neutropenia is extremely important in order to achieve a successful chemotherapy outcome in patients. Approximately one third (30%) of patients surveyed developed an infection while on chemotherapy; nearly half (45%) of the infections in patients undergoing chemotherapy were associated with neutropenia/FN. Of these patients, 37% had to have their chemotherapy delayed or the regimen changed. Not all patients with an infection were seen by their oncologist or haematologist. Seven out of ten (72%) of the nurses reported the prophylactic use of antibiotics and/or G-CSF's to prevent neutropenia/FN; most (85%) of them expressed some degree of concern over patient compliance. Less than a quarter of surveyed patients reported receiving medication to prevent neutropenic infections. Practically all of the nurses (97%) said they discussed the personal risk of getting neutropenia/FN with patients; however, 48% of patients in the survey reported that they did not remember being told about the risk of developing neutropenia/FN.

Conclusion: The survey demonstrated that many patients did not understand/were unaware of the risk of developing neutropenia/FN infections and the impact of this on their chemotherapy, even though information was provided. The survey indicated that improved communication between patients and healthcare professionals is needed with regard to chemotherapy induced neutropenia/FN. Also, improved access to oncologists/haematologists for patients who experience an infection could be advantageous.

This survey was supported by Amgen (Europe) GmbH.

P101**A randomized trial of the effect of training in progressive muscle relaxation and guided imagery techniques in improving psychological and quality-of-life for breast and prostate cancer patients receiving chemotherapy**

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Introduction: The randomized study aimed to determine the efficacy of psychological intervention consisting of relaxation and guided imagery to reduce anxiety, depression, and pain intensity and improve Quality of Life in prostate and breast cancer patients undergoing chemotherapy.

Material and Method: Two-hundred patients with breast and prostate cancer were included in this study. The patients were randomly allocated to either the study group (n = 100) or the control group (n = 100). Patients in both groups received chemotherapy, but only the study group patients received training in relaxation and guided imagery. Each participant received 4 sessions of progressive muscle relaxation and guided imagery and saliva was collected

before and after the sessions. Two primary systems are particularly involved in setting on the stress response, hypothalamus–pituitary–adrenocortical axis (HPA) and sympatho-adrenomedullary (SAM) system. The activation of HPA causes an increase in cortisol secretion in adrenal cortex. Alpha-amylase is one of the major salivary enzymes in humans, and is secreted from the salivary glands in response to sympathetic stimuli. Salivary cortisol and amylase were assayed as indexes of the HPA and SAM system, respectively. Other measurements included assessment of Quality of Life using the EORTC QLQ-C30 (Breast Module-BR23 and Prostate Module-PR25), pain intensity (numeric-pain intensity- rating scale – NRS), depression (Beck Depression Inventory) and anxiety (Self-Rating Anxiety Scale (SAS).

Results and Discussion: Even though the study has not yet been completed initial results show that the amylase level was significantly decreased after the progressive muscle relaxation and guided imagery sessions to the study group compared to the control group. Quality of life, anxiety, depression ratings also show a positive response to the interventions.

Conclusion: Salivary amylase level was more significantly reduced and reacted more rapidly than cortisol to the relaxation and guided imagery interventions, suggesting that it is a better soothing or relaxation index. The use of relaxation techniques and guided imagery is effective in reducing the levels of anxiety, depression and body discomfort (i.e. pain) in patients who have breast or prostate cancer. These simple and inexpensive interventions enhanced the psychological and physical wellness in these patients.

P102**The symptom experience of a patient treated for cancer**

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Introduction: Current research recognizes that many patients treated for cancer experience multiple symptoms, or symptom clusters, to include pain, nausea, depression, anxiety, fatigue, and difficulty sleeping. Infrequently, researchers and health care providers have recognized the presentation of multiple symptoms in patients with cancer and the overall affect of these symptoms on patient functionality.

Material and Methods: The purpose of this presentation will be to explore ten symptoms (nausea and vomiting, trouble sleeping, experiencing fatigue, feeling down/blue, feeling anxious, sore mouth, fever and chills, diarrhoea, constipation, pain, and distress about appearance changes) in one patient undergoing chemotherapy for the treatment of cancer over two consecutive cycles of treatment. Through the use of visual graphical analysis (VGA), ten symptoms will be investigated solely and in conglomeration to note the overall potential outcome, or symptom experience, for one real patient.

Results: The results of this research will depict the symptom experience of one patient. Further, these results will begin to present the overall effect on patient functionality during the two cycles of chemotherapy in the areas of daily activities, the amount of time in hours spent lying down, ability to work, and amount of liquid consumption.

Conclusion: Visual Graphical Analysis will reveal symptom patterns often hidden in traditional analysis. Understanding individual variability is important to the design and implementation of future intervention research and clinical care. Most importantly, this research will present actual data that will help the oncology nurse understand the true symptom experience in patients receiving chemotherapy for the treatment of cancer. There are important educational and research implications arising from this presentation. Health care providers should be educated on the importance of assessing multiple symptoms in patients in order to alleviate those symptoms, to improve quality of life, and to provide

patients with the best opportunity to complete their respective treatment and to cure or control their respective cancer.

P103

Radiation dermatitis in patients receiving radiotherapy with concurrent cetuximab for treatment of head and neck cancer. A new challenge in nursing care

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Introduction: The concurrent administration of cetuximab to radiotherapy has shown to improve the clinical outcome of advanced head-and-neck cancer (HNC) patients. This combination is administered to HNC patients, who are not eligible for concomitant chemo-radiotherapy. We evaluated the severity of radiation dermatitis and overall toxicity of the combination of cetuximab with radiotherapy in HNC patients treated in our institute.

Patients and Methods: Ten HNC patients (median age 64.5 years) with locally advanced squamous cell carcinoma of the oral cavity (n=3), oropharynx (n=5), hypopharynx (n=1) and larynx (n=1) treated between February 2008 and June 2009, were enrolled in this analysis. The treatment consisted of accelerated radiotherapy with concomitant boost up to a dose of 68Gy over 5.5 weeks and concurrent intravenous cetuximab 250 mg/m² weekly after a loading dose of 400 mg/m². Acute toxicities were scored weekly based on the Common Toxicity Criteria, version 3.0. A retrospective analysis of both medical and nursing treatment charts was performed. A literature search for an evidence based guideline on the management of radiation dermatitis was conducted.

Results: All patients experienced radiation dermatitis (grade 2, n=3; grade 3 or 4, n=7). Patients experienced the highest grade of radiation dermatitis at day 37 (median; range 24–46) after start of radiotherapy, with a median duration of 14 days (range 8–30). Radiotherapy was given as planned in 80% of patients and planned cetuximab could be administered in 60% of patients. Despite the good performance score (KS ≥ 70), five patients were hospitalized. The management of the radiation dermatitis was performed according to our institution's regular guidelines. Literature search showed only a consensus guideline, based on an advisory board meeting, without participation of a nurse specialist.

Conclusion: Radiation dermatitis during cetuximab in combination with radiotherapy is a frequent and severe occurring toxicity. The management of EGFR-related radiation dermatitis is a nursing and medical challenge for which no multidisciplinary evidence based guideline is available, yet. The development of a guideline with nursing advises is warranted.

P104

Aprepitant treated patients were better able to maintain daily functioning compared to active control therapy after receipt of moderately emetogenic chemotherapy for the prevention of chemotherapy induced nausea and vomiting

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Introduction: The NK-1 receptor antagonist aprepitant has recently been shown to reduce the incidence of nausea and vomiting induced by a range of moderately emetogenic chemotherapies. In a randomized, double-blind, controlled trial, 848 chemotherapy-naïve patients (77% female, mean age 57) undergoing treatment with any IV dose of carboplatin, oxaliplatin, epirubicin,

idarubicin, ifosfamide, irinotecan, daunorubicin, doxorubicin, cyclophosphamide <1500 mg/m² or cytarabine >1 g/m² were randomized to receive aprepitant in addition to ondansetron and dexamethasone or an active control regimen that included ondansetron and dexamethasone.

Materials and Methods: Five days post-chemotherapy, patients completed the Functional Living Index-Emesis (FLIE), a validated measure of the impact of nausea and vomiting on daily life. The FLIE contains nine identical items in each domain (nausea and vomiting), scored on a 7 point continuous visual analogue scale. A higher score corresponds to a higher health-related quality of life or less impact of chemotherapy-induced nausea and vomiting on daily life. "No or minimal impact on daily life" (NIDL) was defined as an average item score >6. Logistic regression analysis was used to compare the percentage of patients in each treatment group reporting NIDL overall, per domain, and item-specific. Results were corrected for multiplicity using Hochberg's procedure.

Results and Discussion: A significantly greater percentage of patients treated with aprepitant reported NIDL as assessed by the overall FLIE total score compared to those in the active control arm (73.4% in aprepitant vs. 66.3% in active control arm, p<0.05). Subsequent analyses revealed significant responses in favor of the aprepitant treatment group persisted in the Nausea (68.9% vs. 61.3%, p<0.05) and Vomiting domains (85.4% vs. 76.7%, p<.05). Superiority was consistently observed on pre-specified item-specific measures.

Conclusions: Patients treated with an aprepitant regimen were better able to maintain daily life following treatment with moderately emetogenic chemotherapies. This suggests chemotherapy has less impact on patients' lives when an aprepitant regimen is administered in comparison with active control.

P105

Incidence of acute-phase reactions following treatment with denosumab or zoledronic acid: results from a randomized, controlled phase 3 study in patients with advanced cancer or multiple myeloma

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Introduction: Patients with advanced cancer or multiple myeloma (MM) often receive intravenous (IV) bisphosphonates (BPs) for treatment of bone lesions. Previously, results from a phase 3 study reported that denosumab, an investigative fully human monoclonal antibody against RANKL, was non inferior to zoledronic acid (ZA) for delaying or preventing skeletal-related events (SREs) in patients with solid tumours (except breast and prostate) or MM (Sponsored by Amgen Inc; Clinicaltrials.gov NCT00321464). In the present analysis, we compare the subject incidence of acute phase reactions (consisting of a flu-like syndrome of pyrexia, chills, flushing, bone pain, arthralgias, and myalgias), which have been associated with IV BP use within the first 3 days of administration.

Methods: Eligible patients with advanced cancer or MM who were naïve to IV BPs were randomized 1:1 in a double-blind, double-dummy design to receive subcutaneous denosumab 120 mg or IV ZA 4 mg (adjusted for creatinine clearance) every 4 weeks. To identify incidence of acute phase reactions, patient records containing investigator-reported adverse events (AEs) during the first 3 days after the first administration of study drug were searched using a list of 37 pre-specified MedDRA 12.0 preferred terms potentially representing acute phase reactions. Of 1776 patients enrolled, safety analysis was conducted in those receiving ≥1 dose of denosumab (n=878) or ZA (n=878).

Results: Baseline characteristics were generally balanced between treatment groups, except for gender, age category, and visceral lung

metastases. AEs of acute phase reaction occurred in a greater proportion of ZA-treated patients (14.5%) than in denosumab-treated patients (6.9%) during the first 3 days after treatment initiation ($P < 0.0001$). The most common AEs of acute phase reaction reported more frequently for ZA than for denosumab included: pyrexia (5.9% ZA, 0.5% denosumab), fatigue (2.1% ZA, 1.0% denosumab), arthralgia (1.9% ZA, 0.7% denosumab), and back pain (1.6% ZA, 0.8% denosumab). Incidence of serious AEs associated with acute phase reactions during the first 3 days was 0.5% ($n=4$) for ZA, consisting of back pain, pyrexia, and musculoskeletal pain, and 0.1% ($n=1$) for denosumab, consisting of back pain only.

Conclusion: Denosumab was associated with significantly fewer acute phase reactions than ZA in pts with advanced cancer or MM and thus may provide greater feasibility for administration on an outpatient basis.

P106

Symptom experience and symptom clustering over time in patients with lung cancer

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Introduction: While there are several studies focusing on the symptom prevalence in lung cancer patients, there is little work assessing the experience of symptoms and little understanding of the interrelationships of symptoms. Hence, the aim of this study was to explore the patient experience around symptoms over 12 months from diagnosis and the clusters of symptoms that distress patients.

Materials and Methods: Interviews were carried out longitudinally with lung cancer patients at diagnosis ($n=16$), 3 months/end of treatments ($n=12$), 6 months ($n=12$) and 12 months ($n=4$) later, collectively providing 44 interview sets.

Results and Discussion: Physical symptoms commonly reported included pain, breathlessness, cough, fatigue, nausea, vomiting, loss of appetite, changes in sense of taste, indigestion, constipation, numbness, sweating, and weight change. The transcripts also indicated that patients face a range of psychological problems following diagnosis including depression, anxiety, intrusive thoughts, impaired concentration, irritability, boredom, frustration and sleep disturbance. The symptoms of cough, breathlessness and fatigue formed a cluster and they seemed to be central in the patients' symptom experience. When patients described this symptom cluster, the distress described was also higher from other patients who did not experience the symptoms. Patients found a number of ways, including self management, to cope with their symptoms.

Conclusions: The data suggest that distressing symptoms are not managed well in practice, and the co-existence of symptoms is creating significant distress in patients. Clinicians should focus on managing distressing symptoms more effectively in this population with high symptom burden.

P107

The effect of morphine sulphate on life quality of cancer patients in terminal stage

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Introduction: Cancer as a cause of death in the world and our country are in second place. Today, with increasing in the treatment facilities of cancer and other terminal illness, the death rate has been gradually decreased, the terminal period has been prolonged. One of the utmost significant problems in cancer is pain. Cancer pain significantly affects cancer patients' quality of life. Pain is seen that 20–50% of cancer patients' in the first application, 30–40% of cancer patients' during the treatment, 75–90% of cancer patients' in the terminal period. It is stated that cancer patients' pains can not be adequately controlled. WHO advised a guideline about drug

choices for pain relief and morphine sulphate is the drug of choice for terminal cancer patients. The aim of the study is to determine pain scale of terminally ill cancer patients and evaluate the effect of morphine sulphate on pain relief and life quality.

Material and Method: The study was carried on terminally ill cancer patients hospitalized and died during hospitalization in Gulhane Military Medical Academy during 2008. Pain scales were determined according to VAS.

Results and Discussion: The study included 38% male (8), 62% female (13) 21 patients. Of these patients, 33.3% was lung ca, 23.8% was breast ca, 9.58% was gastric ca, 9.58% was colon ca, 4.7% was biliary tract ca, 4.7% was thymic ca, 4.7% was nasopharynx ca. The range of follow up period accepted as terminal stage was between 5 and 40 days. Mean hospitalization duration was 10 days. The mean age of patients was 48 years. Mean dose of morphine sulphate administered to these patients was 15 mg/day. Pain scales of the patients before morphine administration were between 7 and 10 (median 8) according to VAS scale. After morphine administration, pain scales were between 4 and 7 (median 6). Pain scales before and after morphine administration were statistically significant ($p < 0.05$).

Conclusion: Pain is a significant problem which deteriorates the life quality of cancer patients. It is important to determine pain scales of cancer patients according to a generally accepted scale, like VAS. Pain scale of the patients receiving opioids should be determined with the same scale after drug administration. Opioids are the drug of choice for pain relief in terminally ill patients. The mechanism of action of opioids, properties of these drugs should be kept in mind and their effects should be closely followed. Finally, our results showed that morphine sulphate administration lead to significant improvement in cancer pain and this reduction improves the patients' life quality.

P108

Haematologic cancers patients practices against chemotherapy symptoms

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Introduction: Symptoms caused by chemotherapeutics used for cancer treatments affect the quality of life of the patients negatively. It is of high importance to determine the practices made at home in order to decrease or eliminate these symptoms in planning health care of the patient who has received chemotherapy treatment. The study was carried out in order to determine the practices made against the symptoms due to chemotherapy given to patients with hematologic cancers.

Material and Method: The study was made with the patients with hematologic cancers who received daily chemotherapy. Sample choosing was not made and 82 patients who accepted to participate and did not have any communicational problems were included in the study. The data were collected with a questionnaire form.

Results and Discussion: It was found out that 97.6% of the patients had fatigue, 79.3% nausea, 64.6% mouth wounds, 62.2% alopecia and 53.7% pain. The most common practice against these problems were daily-rest (61.3%), antiemetic use (83.1%), mouthwash (52.8%), head-covering (35.3%), increasing meal frequencies and decreasing meal size (58.0%) and use of analgesics (86.3%).

Conclusion: The most common symptoms of the patients with hematologic cancer were fatigue, nausea-vomiting and mouth wound. Patients preferred home rest, antiemetic use and mouth wash in order to sooth these symptoms.

P109**Oral mucositis and nursing interventions in patients with head and neck cancers receiving radiotherapy**

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Oral mucositis occurs as a complication during the treatment in cancer patients. It affects daily functions, nutrition and quality of life of the patients. It also may create a risk for tolerance of the planned treatment and may cause dose reduction and to skip certain treatment agents. Additionally mucositis increases the risk for opportunistic infections and increases mortality secondary to sepsis and increases length of hospital stay and costs. Oral mucositis occurs in 80% of the patients receiving radiotherapy for head and neck cancer and mucositis usually occurs two weeks after initiation of radiotherapy.

Nurses should assess risk factors for the patient before starting preventive treatment of mucositis. It is important to improve nutritional status, assessment of teeth, and treatment of periodontal diseases and to inform the patient about routine oral care.

Oral mucosa, lips and tongue should be assessed daily by nurses during the treatment. It was determined that oral care every 2 to 4 hours after radiotherapy decreases the incidence of mucositis and possible infections. Recommended oral care also includes tooth brushing 2 times a day and mouthwash with 0.9% saline or sodium bicarbonate. Benzydamine can prevent radiation-induced mucositis. Amifostine is FDA approved for the prevention of mucositis in patients with head and neck cancers treated with adjuvant radiation. Studies performed in patients receiving radiotherapy for head and neck cancers revealed that chlorhexidine does not prevent occurrence of mucositis, moreover it is not recommended because it increases pain and irritation. Pilocarpine and cevimeline have shown mixed results in the treatment of xerostomia. Both are muscarinic agents and stimulate salivary flow. Pilocarpine significantly improved oral dryness, mouth and tongue comfort, speaking ability, and general well-being compared with placebo. Oral mucositis is a frequent complication with radiotherapy and preventive measures taken by nurses is important. Quality of life of the patients can be improved with pharmacological and non-pharmacological interventions.

P110**Targeted therapies and managing side-effects in nursing practice**

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Introduction: The development of targeted therapies has increased during the last decades. Especially during the last years a large number of targeted therapies have been approved for use in solid tumours and hematologic cancers and many drugs are used in phase III trials. These therapies are called “targeted” because they block the growth and spread of cancer by interfering with specific molecules involved in tumour growth and progression. These drugs have a range of side-effects which are different from classical cytotoxic chemotherapies. Clearly these side-effects have consequences for the daily nursing practice and require specific/specialised knowledge to recognize them as early as possible. Specialized nursing skills are important for effective nursing interventions. The documentation of the side-effects is standardized by the use of the Common Terminology Criteria for Adverse Events (CTCAE). CTCAE is a descriptive terminology which can be utilised for adverse events reporting.

Material and Methods: During this session the profile of side effects caused by targeted therapies will be considered and the significance and consequences in nursing practice, e.g guidelines for anamnesis before and during treatment, patient education, monitoring and

management of side-effects and nursing interventions, will be addressed.

Results and Conclusion: At the end of the session the nurse will be able to name:

- in general the different types of targeted agents and their therapeutic goals;
- the importance of a thorough anamnesis before and during treatment with targeted agents and know which items should be addressed;
- the risk factors for side-effects of targeted agents;
- the most common side-effects of targeted therapies and how to recognise them;
- in general nursing interventions for managing side-effects;
- the importance of a standardized way of grading side-effects according to the Common Terminology Criteria for Adverse Events and it can be used.

Conclusion: The nurse plays an important role in recognising side-effects at an early stage and to manage them by nursing interventions according to protocols. It is necessary to grade these adverse events in an standardized way and nurses should be familiar in using these criteria and grading

P111**Nursing care of neutropenic patient**

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Despite vast advancements in treatment of malignant diseases recently, infection is still one of the most important causes of morbidity and mortality for patients with cancer. Malignant disease itself and chemotherapy, radiotherapy and surgical interventions are the basic reasons for susceptibility to infections.

Neutropenia: Different levels of neutropenia occur depending on myelodepressive effect at patients receiving chemotherapy. There's a decrease at granulocytes, B lymphocytes, T lymphocytes, spleen functions, normal immunological responses and skin barriers, pathogen microorganism may produce at normal body flora. These factors constitute risk of serious systemic infection by viral, fungal and other opportunistic organisms. Neutropenia may also be seen at cases where primary disease infiltrates bone marrow and pervasive metastasis. Neutrophil count decrease 5–10 days after chemotherapy and white blood cells decrease after 5 days. Neutrophil count proceeds for a longer period with lower numbers at treatment of leukemia and lymphoma. A neutrophil count less than 1000, especially less than 500 increases infection risk. If body temperature rises above 38°C for 2 times in 24 hours or above 38.3–38.5°C for one time with the existence of neutropenia, this is called neutropenic fever.

Symptoms: Fever, lack of inflammation signs due to decline of white blood cells, dyspnea, cough, erythema and mucosal ulcers on oral mucosa, erythema around site of catheter, rash, purulent exuda, infections due to lack of neutrophils, rash and erythema due to skin infections, asymptomatic urinary infections, asymptomatic meningitis, pulmonary infections with no pulmonary infiltration due to lack of neutrophils, gastrointestinal problems, changes in urination routine, perirectal problems may be seen.

Treatment and Nursing care: Vital findings should be monitored, sufficient hydration should be achieved. At first evaluation of febrile neutropenic patient, at least 3 blood cultures should be obtained from different veins and each catheter lumen, culture and smear from catheter tips, cultures from specific sites, nose swab, gaita culture should be obtained and laboratory findings should be examined carefully. Mouth, pharynx, oesophagus, lungs, eyes and skin sites should be evaluated for infections. The most important complication is septic shock. The patient should be hospitalized and wide-spectrum antibiotic treatment should be initialized quickly, appropriate treatment should be arranged according to culture

results, the patient should be monitored closely for effects of treatment especially at the first 3 days, if antibiotic treatment isn't effective in 3–4 days, antiviral and antifungal treatment should be initialized. Infection control methods should be applied for patients with granulocyte counts less than 1000/mm³. The patient and his/her relatives should be informed about infection precautions.

P112

What is the nurse's role in the malnutrition of the chemotherapy patient?

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Introduction: Malnutrition due to an inadequate diet is present in most patients receiving chemotherapy treatments. Causes of malnutrition are the side effects of chemotherapy itself, which leads to: lack of appetite, altered taste and smell, mucositis, nausea and vomiting. Malnutrition may then be a threatening life-risk factor for the oncology patient.

Nearly half of the patients receiving chemotherapy are not given enough information about the treatment and its side effects.

Aims of the study: To identify how many and which kind of information are given to patients about the side effects related to malnutrition during chemotherapy and to analyze the sources of these information.

Materials and Methods: The study was conducted at the Day Hospital of the Department of Oncology Medicine adjunct to the "Istituto Oncologico Veneto" in Padua, from June 2009 to July 2009. An ad-hoc 18-item questionnaire was administered to 120 patients who answered/responded to questions about the symptoms of malnutrition and their information sources. The interview was conducted with patients by the same person and with the same procedure for all respondents.

Results: The study found a discrepancy of information about the specific side effects of chemotherapy. 49% of patients interviewed perceived diet during chemotherapy as a serious problem. 25% of patients wanted more information because they felt unprepared to face the days following therapy. 43% of the patients claimed to have been informed about side effects of chemotherapy; 40% of the patients had received information by the nurses, while 38% by the physicians; 86% of the patients had received information about nausea and vomiting by the physicians. Strikingly, 44% of the patients had received information about mucositis, 43% about altered taste, and 59% about loss of appetite by the nurses only.

Conclusions: It seems that oncology patients are given scant or little information on malnutrition during their chemotherapy. On the contrary, it may be extremely important for the nurses to provide information and advice on this subject mostly because he/she is the one who is more in contact with the patients themselves. Having information on how to improve their diet can help the patients to live better and not suffer a progressive state of malnutrition.

P113

Symptoms and quality of life in the last days of life as reported by hospital nurses

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Introduction: In the Netherlands one third of all deaths (n = 45,000 per year) occur in hospitals. However, little is known about the quality of end-of-life-care in these hospitals. Our aim was to investigate the characteristics of dying in the hospital, as reported by nurses.

Methods: 17 general wards and a unit for acute palliative care participated in this study. For every deceased patient older than 18 years and admitted at least 6 hours in advance of dying, nurses

completed a written questionnaire. They were asked to report on the presence and severity of 14 physical and 8 psycho-social symptoms at 3 days and 1 day before the patient's death, and on the quality of dying.

Results: Between June and December 2009 130 adults died on the participating wards. We received questionnaires about 85 patients (65%). The median age of these patients was 68 years (20–94) and 51% was diagnosed with cancer. The median duration between admission and death was 7 days (1–193).

The most frequently reported (moderately) severe physical symptoms at day 3 before death were fatigue (56%), anorexia (44%), breathlessness (39%) and pain (35%). For the last day of the patients' life, nurses most frequently reported the presence of (moderately) severe unconsciousness (70%), fatigue (57%), dry mouth (44%), breathlessness (43%) and death rattle (37%).

When asked to report about the presence and severity of psycho-social symptoms, nurses mentioned for each of these symptoms in 44–57% not to know whether the patient did or did not suffer from that symptom. When recognized, most mentioned (moderately) severe psycho-social symptoms were feelings of powerlessness (25%) or sadness (24%), followed by anxiety, difficulty with dependency or worrying in 19%.

For almost all patients nurses described patients' dying process positively, using terms like tranquil (72%), peaceful (26%), dignified (25%) and good (22%).

Conclusion: Nurses report mainly on physical symptoms and have insufficient insight in the presence and severity of psychosocial problems in the last days of patients' life. Although many physical symptoms were judged as (moderately) severe, nurses looked positively at the quality of patients' dying process in the hospital.

P114

Opinions of nurses and doctors related to pain control of cancer patients in Turkey

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Background: Pain is one of the most important symptoms affecting quality of life in cancer patients. It is a well-known fact that the pain seen frequently in cancer patients can not be controlled sufficiently. When the literature is investigated, the most important reason for uncontrolled pain of painful patients was detected as giving less importance to pain by their doctor and nurses.

Aim: This study was carried out to determine ideas of doctors and nurses about pain control.

Material and Method: Oncology departments of hospitals that often use narcotic analgesics constituted the universe of this research, and sample of the research is constituted by 66 nurses and 20 doctors who worked in those departments and participated in the research voluntarily. Research data were collected by two questionnaire forms prepared for doctors and nurses.

Results and Discussion: The reasons for insufficient pain control are failure of pain evaluation by healthcare professionals (doctor or nurse) depending on huge patient number (n = 5); patients' not explaining status to healthcare professionals that they had pain (n = 2); lack of adequate knowledge and experience of healthcare team about pain (n = 2); deficient number of healthcare team members that would care and treat patients concerning their pain (n = 2); patients' status of receiving analgesics irregularly (n = 1); not to appreciate patients' compliance with treatment for pain (n = 1); patients in advanced stage or terminal period (n = 1); reasons caused by healthcare system (n = 1). 80% of physicians is determined to primarily prefer Non-steroid Anti-inflammatory Drugs (NSAIDs) according to ladder treatment of World Health of Organization (WHO) for pain relief in cancer patients. 40% of physicians stated that they primarily preferred because those drugs constituted the first step in the ladder treatment and 35% of the physicians preferred because that the side effects of those drugs were less. Doctors

who think that pain control is insufficient reported the reasons for this as (20%) incompliance of patient with his treatment for pain relief (n=4); fears and misconceptions of healthcare team especially about side effects (n=3); paying no attention/insensitivity of patient when evaluating his/her own pain (n=3); challenges in obtaining and prescribing opioid drugs (n=3); and patient's failure of expressing his/her painful status (n=1). Literature indicated attitudes and behaviours of doctors and nurses from healthcare team are affected from important adverse effects especially seen with opioid drugs such as morphine

Conclusion: Evaluating of doctor and nurse's views in pain control is very important to plan future researchers and education activities oriented effective pain control.

P115

Nursing consultation hours to support patients undergoing hormonal therapy: a successful initiative in supportive care

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Introduction: Patients undergoing chemotherapy at the Albert Schweitzer Hospital in Dordrecht, The Netherlands, visit the regular nursing consultation hours between each chemotherapy infusion for support and information. Breast cancer patients undergoing oral hormonal therapy often experience adverse side effects. At the outpatient chemotherapy ward there is not enough time and privacy to address these problems properly. However, no consultation hours were available for these patients. Therefore specific nursing consultation hours were organised to support patients undergoing hormonal therapy.

Material and Method: For the implementation of the consultation a project design was written. This describes the target group, the design of the consultation, the timeframe, the financing, the evaluation and the communication. A nurse practitioner of the NKI-AVL in Amsterdam organised training on hormonal therapy for the oncology nurses. Conversation forms and a protocol "hormonal therapy" were developed, for structuring the consultation and information given. After half a year the nursing consultation was evaluated, by means of structured questionnaires among the visiting patients, oncology nurses and oncologists.

Results and Discussion: Since January 2007 the oncology nursing consultation hours for breast cancer patients undergoing hormonal therapy has been operational. Patients are referred by their oncologist. During the first consultation the patient receives extensive information about hormonal therapy. During the following consultation after three months, the experienced adverse side effects and social-emotional aspects are discussed, as well as coping with the illness and treatment. Extra advice is given and if needed the patient can be referred to other health care professionals, like a social worker or psychologist.

Patients as well as oncologists and nurses are enthusiastic about the new nursing consultation hours for patients undergoing hormonal therapy. The consultation is seen as useful in addition to regular care for these patients and nearly all patients would not want to have missed the consultation.

The patients described the provided oral information as clear. However, the oncology nurses wished further education on the adverse side effects of hormonal therapy. Therefore a product specialist from a drug manufacturing company was invited to give a lecture on hormonal therapy.

Conclusion: The nursing consultation hours for breast cancer patients undergoing hormonal therapy are a simple but effective way to offer extra support, information, care and guidance to these patients. Our initiative can be an example to other hospitals that want to improve their supportive care for breast cancer patients undergoing hormonal therapy.

P116

Reduction of anxiety levels at the beginning of chemotherapy through educative nursing intervention

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Introduction: Cancer patients show symptoms of anxiety associated with cancer diagnosis and treatment. Anxiety is a feeling of apprehension or fear when a person faces an unknown and difficult situation that arouses these feelings.

Objectives:

- Understanding the impact of a health education nursing intervention in the anxiety level
- Describe knowledge and identification of the side effects of chemotherapy.

Methodology: Comparative study with intervention. Two groups were configured: the control group (patients starting chemotherapy without nurse intervention), compared to the intervention group (patients with a previous nursing consultation). Sample of 126 patients. The parameters measured are: anxiety level, given by the Spielberger Anxiety Scale (STAI-STATE) in 3 consecutive cycles of treatment; side effects identified in cycles 2 and 3; and number unscheduled visits. Analysis of data SPSS.15.0 programme.

Results and Discussion: In cycle-1, 42% of patients in the intervention group showed high anxiety levels, compared to 51.3% in control. In cycle-2, 38% versus 46% in control, and in cycle-3, 38% versus 50%. Higher differences were shown in women.

65.3% of patients in the intervention group identified between 70–100% of side effects. The number of unscheduled visits is lower in the intervention group (14.3% versus 20.5%). A better knowledge of side effects prevents an increase in anxiety level. In women there is a more marked effect, consistent with other studies of self-care.

Conclusions: The decrease in anxiety levels due to nurse intervention is reflected in the 3 visits, being higher in women. The intervention group maintained the same level of anxiety during cycles 2 and 3, whereas in the control group increased. The intervention group knows and identifies a higher number of side effects. In cycle-2 of the intervention group, nurses were more consulted than doctors, while in cycle 3 the doctor is the most consulted.

P117

Management of epidermal growth factor receptor (EGFR) inhibitor-related skin toxicities across Europe

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Introduction: Treatment with EGFR inhibitors has become the mainstay of management of patients with chemotherapy-refractory, EGFR-expressing, KRAS wild-type metastatic colorectal cancer (mCRC), with some also approved in the management of lung and head and neck cancers. Unlike cytotoxic chemotherapy these agents are not associated with the same systemic adverse events. However, the most commonly associated side effect is the incidence of skin toxicities such as acneiform rash, dry skin, fissures, nail and hair changes. To date, there is no formal consensus on the management of these treatment-related toxicities.

Material and Method: With an exploratory and descriptive approach, nurses from 10 institutes across Europe (April–November 2009) were asked to complete a questionnaire to gain a better understanding how EGFR inhibitor-related toxicities are managed in their institutes. Nurses were identified for participation based on their known experience and specialisation in the care of patients receiving EGFR inhibitors. All questions were open-ended and respondents were asked for their personal guidance in relation to managing patients in accordance with NCI-CTC version 3.0 grading criteria. The aim of this study was to compare and contrast the similarities and differences between management of these treatment-related events across Europe.

Results and Discussion: Of the 10 centres approached, nurses from 6 centres (Belgium, Ireland, The Netherlands, Sweden, Switzerland and the United Kingdom) completed the form with detailed treatment information. Prophylactic treatment of skin rash is not recommended although across all countries patient education and general skin care advice, including the use of moisturisers, is given. In some countries topical antibiotic creams are given immediately with the appearance of grade 1 acneiform rash while in others oral antibiotics are preferred. Treatment of grade 3 acneiform rash varies greatly with oral/topical steroids as well as antibiotics and antihistamines being incorporated into some strategies. Management strategies will be summarised and presented. Within the parameters of this small sample size and the limited representation across Europe the results of this study show the divergent approach to management of these treatment-related events.

Conclusions: These results show the need to share experience and best practice across Europe with the potential to develop initiatives to assist health care professions in making treatment decisions and providing support to improve and standardise patient care. Future algorithm development will be difficult due to pan-European differences and given that recommendations are based on experience and not clinical evidence.

P118

Sleep disturbances in oncology patients: the influence of illness, treatment and hospitalisation

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Introduction: Sleep disturbances appear in around 45% of patients with cancer. The most frequent symptom is insomnia and it is associated with factors both from the illness and the treatment. An added factor is hospitalisation that introduces new factors and changes in the usual sleep pattern. The implication of nurses to detect alterations in the sleep pattern is key to design strategies that help the patient to improve the quality of sleep. The main aim of the study is to explore the sleep pattern and factors that affect the quality of sleep in oncology patients because of the illness process and hospitalisation.

Method and Material: Cross-sectional descriptive comparative design to determine the factors that influence sleep in oncology patients because of illness and treatment and their changes during hospitalisation. A questionnaire was developed and piloted. It was distributed to patients when they were admitted and after 3 days in hospital. The study includes a sample of 42 cancer patients (95% CI: 31–56) hospitalised in the oncology units of the Clinica Universidad de Navarra. Data has been analysed using SPSS 15.0 and included both descriptive and comparative analysis.

Results and Discussion: 46% of the patients have problems to sleep with a mean sleep efficiency of 78% (SD 16.7); 78% had no problems before being diagnosed. Anxiety is the most frequent cause. Comparison of results before and after hospitalisation highlights some differences. Quality of environment is the variable that shows significant differences ($z = -2.608$, $p = 0.009$) being more negative the hospital environment because of noise. Changes in sleep pattern are related mainly to the in-bed time ($z = -4.268$, $p < 0.001$) with a significant increase in hospital respect to home. Half of the patients refer that quality of sleep is the same at home and in the hospital interestingly 18% have better quality at hospital due to a better symptoms control.

Conclusion: This study is addressed to assess the sleep pattern and factors that influence the quality of sleep at home and how they are modified during hospitalisation. Sleep disturbance is still a problem despite the use of drugs for this purpose. New strategies to help patients to reduce and control anxiety need to be developed and nursing care protocols must be involved. Improvements in hospital

environment have to be considered to reduce noise and facilitate patients sleep.

P119

Scalp cooling introduction and research – time to cross Dutch borders and enter Europe

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Introduction: Alopecia, hair loss, is a common and distressing side effect of chemotherapy. Hair loss stigmatises by making cancer visible. Scalp cooling is worthwhile supportive care that is applied in cancer patients with chemotherapy schedules that cause (severe) hair loss. In 2004, only 4 hospitals in the Netherlands offered scalp cooling. Reasons for this low level of application were time pressure on nursing activities, medical reluctance due to fear of scalp skin metastasis and unfamiliarity with scalp cooling and the positive results among patients, nurses and oncologists.

Methods: In 2005 a PhD-project was started, comprising several topics related to scalp cooling; optimisation of scalp cooling methods (time and temperature), recording of results, Quality of Life assessment in relation to degree of hair loss, occurrence of scalp skin metastases and cost-effectiveness.

Results: Renewed attention for scalp cooling stimulated curiosity of medical doctors (MD) and nurses in the introduction of a new service. Media attention reached a lot of patients, who in turn asked MD's to offer cooling. Current competition in health care also contributed to scalp cooling being considered as an extra service to patients. A nationwide network developed with dedicated nurses and also patients who wanted to share their experiences and help future patients.

In 2010 scalp cooling is practised in 45 (i.e. almost half of the) hospitals in the Netherlands. Nowadays, scalp cooling is also practised extensively in the UK and among others in Belgium, Ireland, Norway, Sweden and Switzerland.

Our research showed that more than half of the patients do not require a head cover in chemotherapy schedules that normally induce severe hair loss. Furthermore, hair preservation leads to a better well being and body image. Hazards of development of scalp skin metastases by scalp cooling seem very low, but can not be excluded unequivocally. In addition, cooling times might be shortened, which declines the burden of scalp cooling in patients and is a great advantage in the time schedules of day care units.

Conclusion: The ongoing clinical investigations will lead to further improvement of methods and results of scalp cooling will contribute to more general use, European collaboration and exchange of best practices.

P120

Pain management in cancer patients

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Significance of pain in cancer patients: Cancer has become a major health problem today. According to the data presented by the World Health Organisation in 2002, there are 24.6 million patients with cancer. Besides being a serious and chronic disease, cancer also causes psychological problems such as fear, uncertainty, hopelessness, the feeling of isolation, ideas of death, and physical problems like nausea, vomiting, constipation and unbearable pain. Pain is a common health problem and causes troubles for cancer patients.

Pain management in cancer: In evaluating pain, the health professional takes a meticulous and thorough anamnesis and performs physical and neurological examination. The health professional also analyzes the patient's psychosocial condition and levels of ability to conduct daily activities. A variety of pain evaluation scales are used to determine the pain levels of the

patients such as one dimensional scales or multidimensional scales. The intensity of pain can also be measured by subjective scales based on a range of variables.

Nurses should talk to the patients and explain about their pain before administering the medicine. There are some non-pharmacological practices that a nurse can exercise to relieve/soothe the pain, which are changing the patient's position quite often, massaging, using cold and hot packs, warm showers, mouth care, bed rest, using airbeds, providing a comfortable and tranquil atmosphere isolated from light or noise, teaching the patients how to relax, distracting their attention or arranging visit with close friends or relatives. It has also proved helpful to create opportunities that the patients may enjoy such as listening to the radio, watching television, reading, painting, handcrafting, or meeting with people they long for seeing. Meditation, progressive relaxing, daydreaming, rhythmic breathing, biofeedback, therapeutic touch, cutaneous stimulation, hypnosis, music, humour, hot-cold packs, and ice massage are some of the cognitive-behaviouralist and non-invasive methods. Among the invasive methods, on the other hand, the most common method is acupuncture.

Analgesics have a remarkable place in pharmacological approach to pain. The first step of analgesic therapy is the use of non-opioid analgesics in low levels of pain (pain level <3 out of 10). Non-opioids can be supported with adjuvant drugs such as antidepressants, anticonvulsants, corticosteroids, neuroleptics and oral local anaesthetics in this level. The second step includes weak opioids (codein), non-opioids, and adjuvant drugs for low/moderate levels of pain (pain level 3 to 6 out of 10). The third step, on the other hand, contains the use of strong opioids, (morphine, alprantani, fentanyl, etc.) non-opioids, and adjuvant drugs for moderate/high levels of pain (pain level >6 out of 10). The patients who take opioid analgesics should be monitored in terms of side effects, opioid tolerance and physical addiction.

P121

Docetaxel who administered patients to be compare with methylprednisolone and dexamethasone efficiency

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Introduction: Docetaxel has emerged as one of the most important cytotoxic agents, with proven clinical efficacy against many cancers. However, to realize the full clinical potential of docetaxel, it is essential to understand the associated side effects and how to prevent or manage them.

Material and Method: The study has been carried out in order to examine the efficiency of methylprednisolone or dexamethasone which is administered to prevent the anaphylactic reaction development before receiving docetaxel in the Outpatient Clinic. All of the patients have been administered methylprednisolone or dexamethasone according to order in their chemotherapy protocols. During the receiving docetaxel anaphylactic reactions have been evaluated, and fluid retention has been evaluated prospectively. Total 55 patients and 62 course of treatment have been included in the study.

Results and Discussion: Patients were involved in the study 69.1% were female, 52.7% of them were suffered from breast cancer, 32.7% were in the age range between 45–54, 29.1% were received to the TCF (Docetaxel, Cisplatin and Cylofosfamide) protocol and the average docetaxel dose was 119 mg (60–164 mg). 64.5% of the patients have been administered dexamethasone before receiving docetaxel. Anaphylactic reaction has developed in 22.6% of the patients. This reaction has been determined at 13.6% in the group, receiving methylprednisolone, and at 27.5% in the group, receiving

dexamethasone. No statistical difference has been found between those two groups with respect to anaphylactic reaction ($P=0.212$).

The fluid retention has developed in 17.7% of the patients. Patients who receiving methylprednisolone were seen 18.2%, and 17.5% patients who receiving dexamethasone. No statistical difference has been found between the groups in with respect to fluid retention ($P=0.946$).

Studies of pre-medication with corticosteroids have produced conflicting results. No clear recommendations on pre-medication were identified in the literature search. Nevertheless, pre-medication with several oral doses of corticosteroids (for 3–5 days) reduces the likelihood of hypersensitivity reactions. Corticosteroids administered to reduce the risk of hypersensitivity reactions also reduce the incidence and delay the onset of fluid retention, and decrease its severity

Conclusion: Treatments for use in supportive care will continue to evolve, as will awareness of the side effects associated with docetaxel, resulting in better management of toxicities and improved quality of life and clinical outcomes.

P122

Evaluation of lymphedema for the operable breast cancer patients – single center experience from Turkey

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Introduction: Lymphedema (LE) is the most feared complication of breast cancer surgery. Early detection and management are critical for prevention of lymphedema progression and complications.

Material and Method: This study has been performed for the evaluation of lymphedema in patients with operable breast cancer. An evaluation form is used for collection of data. During follow up assessments after surgery, measurements of arm circumferences were performed from upper arm and forearm. We informed the all patients about lymphedema, gave brochure and demonstrated the exercises. We follow all patients monthly. Arm measurements are compared with previous measurements.

Results and Discussion: A hundred-seven patients were included in this study. Of all participants 69.2% are between 41–60 years old of age (range, 20–80). Eighty-five (79.4%) patient underwent mastectomy and lymph node dissection and 22 (20.6%) had breast conserving surgery. Most of the patients (54.2%) were having chemotherapy, radiotherapy and hormonal treatment.

Differences between two upper arm circumferences are 0–0.5 cm for 48.6% and 0.6–1 cm for 16.8% of the patients. Forearm differences were 0–0.5 cm for 73.8% and 1–2 cm for 10.3% of the patients. Body mass index are 25–29.9 kg/m² for 35.5% (mild overweight) and 30–34.9 kg/m² for 30.8% (middle level overweight) of all patients are included this study. We observed that lymphedema were more prevalent in obese patients.

Conclusion: According to the results of our research, patients with breast cancer have the risk for lymphedema and they have to follow regularly. Lymphedema can be prevented when the patients are well trained. Providing lymphedema information has an effect on symptom reduction and more risk-reduction behaviours being practiced among breast cancer survivors. This study has not been completed yet and to be continued.



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