was a constant reminder of having cancer. The loss of control of the body boundary due to uncontrollable symptoms led to significant levels of distress and suffering for the women.
Conclusions: This study contributes to understanding that the care of women with an exulcerated breast carcinoma needs strategies that are integrated in a palliative, holistic, empathic approach. In particular skills for palliative wound care among medical and nursing staff need to be developed as the women and their carers report a lack of information and advice about how to manage the wound as well as the physical limitations and psychosocial consequences of struggling to maintain the boundedness of the body.

4159 ORAL

The Importance of the Internet for People With Cancer

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The purpose of this study was to describe how important people with cancer consider the social support they receive from the internet. The aim of the study was to produce information that can help nurses to understand the importance of the internet as a source of social support for people with cancer.
The data were collected in May 2010 using an online questionnaire, which was held open from May 3rd to May 24th, 2010. The participants of this study were recruited through four discussion forums from the websites of the Cancer Society of Finland. These four discussion forums included groups such as living on life-support medication, cancer in general, women's cancers and men's cancers.
Seventy-four cancer patients participated in the study. The average age of the participants was 53 years (range 24 to 74). A majority of the participants were women (87%, n = 64). Most had a polytechnic or college degree (39%). Nearly one in four (24%) had a university degree. The most common cancer was breast cancer (42%). More than three fourths had suffered from cancer for less than five years and nearly three fourths of the participants felt that the current health was good. The importance of the internet as a source of social support was seen in the way in which support from peers facilitated life: you were not alone with the disease and the loved ones could be saved from getting overburdened. The empowerment generated by the social support from the internet had positive impacts on patients' daily lives, the information received from the internet helped to bear the disease and the independence increased. The social support from the internet could have only a limited effect or the effect was negative. In that case the support had no importance or the support varied. The social support had changed through the internet so that the social support increased, remained unchanged or was felt negatively.
Narrated by the people with cancer themselves the virtual social support facilitates their lives in many ways. In nursing it is essential to learn to recognize the importance of the internet as a source of social support for people with cancer and not think of it as a distrust of our own work.

4160 ORAL

Quality of Life Trajectories in the First Eight Months After Breast Cancer

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Background: Quality of Life (QoL) disruption is common in the continuum of care for cancer. QoL has been reported to decrease after diagnosis and then improve over time. Still, little is known about the individual fluctuation of QoL during the phases of diagnosis, treatment and transition to survivorship in relation to breast cancer. Our objectives were to determine the most common trajectories or patterns of change in QoL among women with breast cancer as well as possible predictors of these trajectories.
Material and Methods: A total of 357 women (84% participation) with newly diagnosed breast cancer were included in a questionnaire study at a university hospital in Denmark. 300 women completed questions on QoL using EORTC QLQ-C30 at time of diagnosis and after 4 and 8 months. Data on surgical treatment and adjuvant therapy have been obtained from the Danish Breast Cancer Cooperative Group.
Data analyses are in progress. The SAS mixture model procedure TRAJ will be used to identify distinct trajectories. The effect of age, cancer treatment, education and available social support in and outside the family on belonging to a certain trajectory will be estimated.
Results: Preliminary results on overall QoL trajectories will be presented. The effect of age, cancer treatment, education and available social support in and outside the family on belonging to a certain trajectory will indicate factors important for developing the different trajectories.
Conclusion: We expect to identify distinct trajectories of QoL, which will provide important knowledge about the timing of QOL in the first 8 months after breast cancer diagnosis. Distinct trajectories may help nurses identify patients who might benefit from enhanced attention.

4161 ORAL

Cancer – a Challenge for the Whole Family

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Background: Experimental data show that cancer has an important impact on the quality of life of both the patient and the people surrounding him with whom he shares experiences and important relationships (Solano, 2001, Grassi, 2003).
The purpose of this research was to assess the quality of life of cancer patients and their caregivers and to identify significant correlations between the well-being of both of them in the physical, psychological, relational and environmental areas.
Materials and Methods: The sample consisted of 72 oncological patients undergoing chemotherapy (30 male, 32 female; mean age: 58.5 years old, range: 36–75), and their caregivers (23 male, 49 female; mean age: 55 years old, range: 25–78; 40 spouse, 15 children, 11 other relatives, 6 friends).
The short version of the WHOQOL test (Murphy, 2000) was administered to both the patient and his caregiver in order to asses their quality of life. Their scores achieved in each area were then compared.
Results: The quality of life in the majority of cases (patients 80.5% and their caregivers 85.5%) was reasonably good. 29% patients and 30% caregivers experienced a very good well-being, while 8% patients and 7.5% partners showed a significant difficulty in one area under test.
5.5% patients manifested problems in two fields of interest and 6% couples had difficulties in three areas.
The statistical analysis, conducted with Spss, showed a highly significant correlation ($p < 0.001$) between the scores obtained by the same person in all areas analysed.
The scores of patients and their caregivers were closely related in each area, being independent of all other variables measured (sex, age, type of cancer, stage of disease and caregivers' rules).
In 90% cases a poor quality of physical life of the patient was related to a similar low level of the physical quality of life of his caregiver. Similarly, the caregivers of 85% patients with psychological problems also manifested psychological problems. In 83.5% cases the patient's interpersonal difficulties were related with similar difficulties in his partner.
Conclusions: Our results confirmed the initial hypothesis and demonstrated that it can be useful to propose activities in order to improve the quality of life of both patients and their caregivers, as the well-being of one is closely related to the well-being of the other.

4162 ORAL

Piccline Related Complications in Oncology Patients

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Background: Peripherally inserted central catheter (PICC) is commonly used in oncology care and treatment to ensure a safe, short or long term intermittent vascular access. PICC are a cost effective way of safely administering chemotherapy in the ambulatory setting. However, as with other types of vascular accesses, some complications have been described in the literature. Complications in an early phase related to the catheter insertion have been reported to be bleeding or wound oozing. Complications in a later phase after insertion have been reported to be infections, local occlusion and vein thrombosis. The aim of this study was to analyse the incidence of complications related to PICC in oncology patients, and also to compare complication rates when introducing a new technique of insertion.
Material and Methods: Using medical records we compared complication rates among cancer patients in an oncology department at the University hospital of Lund in the southern of Sweden. We consecutively selected medical records from patients having PICC before and after a new insertion technique. 250 medical records from patients having PICC inserted in the bend of the arm (group A) and 252 from patients having PICC inserted in the upper part of the arm (group B). The later group had their PICCs with ultrasound guided insertion technique. Data collected from the medical records consisted of demographical data like age, gender, reason for having a PICC and if the insertion succeeded or failed (related to anatomical

structures). Data on cases where insertion failed, complications, infection, and thrombosis was compared for the two groups.
Results: The new insertion technique lead to a reduction in the rate of not accomplished insertions due to anatomical difficulties, from 22% (A) to 5% (B). The frequency of infections decreased from 13% (A) to 3% (B), and the frequency of thromboses from 5% (A) to 3% (B). The total frequency of complications decreased from 16% (A) to 6% (B), with 2 complications per 1000 catheter days in group A and 0.71 complications per 1000 catheter days in group B.
Conclusions: Our results together with results from previous studies indicate that improved complication rates are related to improved technique for insertion, but are also probably related to increased handling experience and educational interventions. Accumulating evidence is supporting PICC as a safe option for most cancer patients in oncology care with a need for short or long term intermittent vascular access. On decision on vascular access in cancer patients it is of importance to consider safety as well as convenience for the patient.

4163 ORAL

Effects of a Dietary Intervention on Health-related Quality of Life Including Gastrointestinal Side Effects − a Randomised Controlled Trial in Prostate Cancer Patients Undergoing Radiotherapy

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Background: Dietary interventions designed to reduce gastrointestinal side effects during pelvic radiotherapy are scarce and in the absence of evidence-based dietary advice, various recommendations have been introduced in clinical practise without the appropriate scientific basis. Here we present a prospective randomized study to determine the effect of a dietary intervention compared to standard care, on acute health-related quality of life (HRQoL) including gastrointestinal side effects in prostate cancer patients referred to radiotherapy.
Methods: Inclusion ran from January 2006 until January 2008, resulting in a total of 130 patients. Prostate cancer patients referred to radiotherapy were randomly assigned: intervention group (IG, $n = 64$) reduced intake of insoluble dietary fibres and lactose, or standard care (SC, $n = 66$) normal diet. Data were collected for a total of 26 months for each patient (baseline, 4 and 8 weeks and at 2, 7, 12, 18 and 24 months after end of radiotherapy). In this report, HRQoL including gastrointestinal side effects and adherence to dietary instructions were evaluated from baseline up to 2 months after radiotherapy, using the EORTC QLQ-C30 and QLQ-PR25, the study-specific Gastrointestinal Side Effects Questionnaire and a Food Frequency Questionnaire (FFQ). A Dietary Adherence Score was developed from results of the FFQ, with lower score indicating better adherence to the dietary instructions.
Results: Patient-reported gastrointestinal side effects increased during radiotherapy and the inter-group differences were most apparent at 4 weeks. Preliminary analyses of the QLQ-C30 indicate that 40% of patients in SC reported symptoms of diarrhoea at 4 weeks compared to 30% in IG, and 29% patients in SC reported symptoms of constipation compared to 20% in IG. In QLQ-PR25 at 4 weeks, bowel symptoms were reported by 55% of patients in SC and by 48% in IG. For the single item bloated abdomen, the symptom prevalence was 43% for patients in SC and 33% in IG. The dietary intervention displayed no effect on global health status or functioning scales. For patients in IG, the Dietary Adherence Score was significantly lower at all follow-up assessments compared to baseline ($P < 0.001$). Patients in SC did not change their diet. Manuscript submitted. Results will be presented.
Conclusion: A dietary intervention with reduced intake of insoluble dietary fibres and lactose may decrease gastrointestinal side effects during radiotherapy for prostate cancer, but replication of the results and longer follow up is needed, before the value of the intervention can be established with certainty.

4164 ORAL

A Supportive Nursing Care Clinic for Patients With Head and Neck Cancer − Effects on Nutritional Status, Nutritional Treatment and Admissions to Hospital

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Background: Severe and sustained nutritional problems are extremely common among patients with head and neck cancer (HNC) due to tumour and its treatment. A supportive nursing care clinic (SNCC) with focus on symptom control, nutritional care, and psychosocial and emotional support was established as a complement to regular care (RC). Since continuity of care was a further objective, the patients attended the clinic regularly before and during the medical treatment and during one year after completion of treatment. The objective was to investigate the impact of the SNCC on nutritional status, extent of nutritional treatment and occurrence of admissions to hospital due to nutritional problems for patients with HNC treated with radiotherapy.
Material and Methods: A comparative design was used. 20 consecutive patients treated at the SNCC were followed prospectively and 50 patient records from the same hospital were used as a historical control. Data were collected each week during radiotherapy and one, three, six and twelve months after completed radiotherapy using a study specific questionnaire covering eating problems, weight, nutritional interventions, and reasons for admission to hospital. Descriptive and non-parametric statistics were used.
Results: Eating problems occurred in 100% of the patients during radiotherapy and continued to be common in both groups after completed treatment. However, the patients in the SNCC group had statistically significant less weight loss compared to the RC group after three weeks of radiotherapy ($p = 0.000$), after completed radiotherapy ($p = 0.000$), and 12 months after completed radiotherapy ($p = 0.000$). All patients in the SNCC group received dietary supplements compared to 34% in the RC group. Patients in the SNCC group were more often treated with enteral nutrition than patients in the RC group (70% and 42%, respectively). Admissions to hospital due to nutritional problems were 20% in the SNCC group and 48% in the RC group.
Conclusions: A SNCC can make appropriate early nutritional interventions possible and thereby optimize nutritional status in patients with HNC. SNCC seems to be cost effective as admissions to hospital due to malnutrition was lowered in this group of patients compared to RC, but larger studies are needed.

4165 ORAL

Complementary and Alternative Medicine Use Among Cancer Patients Receiving Radiotherapy and Chemotherapy

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Complementary and alternative medicine (CAM) use is common among cancer patients. Previous studies have shown that up to 40% of cancer patients use different types of CAM during the course of their disease. Little is known about CAMs that are used during radiotherapy and chemotherapy. Therefore, the present study was conducted to identify how many patients use CAMs during active anti-cancer therapy and what kind of CAMs are used most.
Sixty-two patients completed a survey (58% women, 42% men, mean age 60 years). According to the survey, most of the patients had prostate cancer (26%) or breast cancer (21%), as well as ovarian cancer (8%), lung cancer (7%), uterine cancer (5%), colorectal cancer (3%), gastric cancer (3%), pancreatic cancer (3%) and other (including not specified) types of cancer (24%). Most of the patients received chemotherapy (47%), followed by radiotherapy (37%), concomitant chemoradiotherapy (13%) and hormonal therapy (3%). Out of 62 patients 35 (56%) used some type of CAM during radiotherapy and/or chemotherapy. During the active anti-cancer treatment patients used teas (52%), vitamins and other dietary supplements (45%), vegetables and juices (39%), special diets (19%), herbal medicines (19%) and immunomodulators (3%). Most of the patients took supplementary products every day (86%). Vast majority of patients (85%) were convinced that CAM increases the efficacy of standard anti-cancer therapy and prolongs their survival. Nearly 47% of patients did not inform their doctors about CAMs they use during radiotherapy and/or chemotherapy. Information about CAM was mainly obtained through internet sources (36%), books (25%) and brochures (25%). Also, some types of CAM were advised by doctors (36%), close acquaintances (18%), and oncologists (16%). Most of the patients trusted received information (82%). However, 73% of patients admitted that additional information about CAM is definitely needed. According to our survey, patients would like to receive additional information mostly from a consultant (60%), specialized brochures (44%) and/or from the internet (20%).
In conclusion, a big proportion of patients (56%) receiving radiotherapy and/or chemotherapy use complementary and alternative medicine. Adequate counseling of patients is definitely needed, especially in the light of the fact that some CAMs may decrease the efficacy of radiotherapy and/or chemotherapy.