with and without infections) in the two periods, and time to first bacteremia after insertion of tunnellated CVC will be presented for the two periods.

1226 POSTER

Dying with dignity - care giving to dying cancer patients in hospitals.

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Introduction: In Denmark 60% of terminal cancer patients end their lives at a hospital department. To nurse dying cancer patients requires experience as well as personal and professional qualifications at a very high level. In the absence of agreed upon standards, the nursing of dying cancer patients depends on the skills and experience of the individual nurse. This inevitably results in a very diversified quality of the care giving. Purpose of the study The main objectives of the study were to clarify · what kind of knowledge nurses utilise in the caring of dying cancer patients · which qualifications are required, by the nurses, in order to give professional care · whether or not the understanding, by the individual nurses, of a decent and acceptable death does correspond to the prevalent definitions in the literature.

Methods: The study group interviewed nurses from four different departments. In order to optimize the interaction the nurses were interviewed in groups – a qualitative method of research. The outcome of the interviews were then compared to the findings of literature studies.

Conclusion: The interviews combined with the findings of literature studies demonstrate that there is a lack of agreed upon principles and standards for care giving to dying cancer patients in hospitals. It is therefore recommended that such principles and standards should be developed in order to improve the nursing.

1227 POSTER

Verification of set up deviation with tangential post operative irradiation technique using electronic portal imaging in clinical practice.

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Background: Until May 2002 the only radiotherapy department in northern Sweden was situated in Umeå. The reception area covered 225 000 km^2, over 55% of the country area. The population of this area is only ca. 900 000.

In order to reduce the need for long distance patient transport and to be able to offer a good qualitative radiation treatment to patients unable to travel long distances a radiation treatment department in Sundsvall in the southern part of the region has been built up.

Patient conferences with Umeå are held using a videoconference system and common patient information and check and confirm systems are used in order to make transfer of patient data fast and secure.

One of the most common treatments given in Sundsvall is tangential postoperative breast irradiation

The aim of this study was to determine set-up deviations during treatment in Sundsvall with tangential breast irradiation technique using an Electronic Portal Imaging system (Elekta, iViewGT).

Material and methods: Treatment simulation in Sundsvall is done using virtual simulation and all patient information in the Sundsvall clinic is digital, partly because of the common patient conferences. The patient fixation and CT-scanning, for target determination and virtual simulation (GE, advantage SIM), are made in Sundsvall and the CT-data is sent to Umeå for dose calculation. The setup parameters from the dose calculation system are then stored in the common database for use in Sundsvall.

Setup verification is made using an EPID system with an amSi detector. Image matching is made by comparing the field DRR from the virtual simulation system to the EPI using the digital matching tools in the EPID system.

The radiation treatment department in Sundsvall is a complete department with oncologists, radiation therapists, physicists and technicians. This means that the joint center, apart from dose planing, works as a cooperation between independent clinics rather than main and satellite clinic.

34 patients have been treated with tangential postoperative breast irradiation between August 2002 and February 2003 and were enrolled in this study.

Results: The result of set-up accuracy varied depending the treatment sessions but were well inside the tolerable values that were set up. The mean setup deviation and the corresponding standard deviation (1 SD) of the systematic and random errors for this technique, measured in the plane orthogonal to the beam axis, ranges from 2.5 ± 1.6 mm to 3.6 ± 2.3 mm depending on treatment session.

Conclusions: These results show that set-up deviations in breast cancer patients treated with tangential technique are negligible in clinical practice. They can be attributed to systematic errors as well as random errors due to patient movement and breathing. Patient fixation and immobilization techniques together with experience and skill of the treatment staff is crucial in minimizing random errors.

Education

1228 POSTER

Cancer clinical trials and nursing practice

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Introduction:

Improvement of cancer treatment is achieved by clinical trials (CT). This implies that treatment is given in accordance with medical research protocols and the requirements of Good Clinical Practice. Based on the view that nurses have a group responsibility for the precise execution of clinical trials, working groups of nurses from medical oncology and hemato-oncology, in the University Medical Center Utrecht (UMCU), translated this into nursing practice. The procedure required a new impetus, due to changes of staff and the resulting loss of know-how. In 2002 an educational program was developed. The nationwide blueprint Nursing Practice and Clinical Trials' (Vrehen, Weterman, Van Zanten, 2001), issued by the Netherlands Oncology Nursing Society, was used in this context. The Framework of Nursing Research Protocols', developed in the UMCU, is part of this.

Methods: All nurses are trained in CT with a basic course and a continuing education program. The course has covered the basic principles, the legal background of CT, and the procedures of the working groups. The participants were actively involved in the course, with a quiz to test their knowledge; they were also asked to identify bottlenecks in working practice.

Results: Following on from the CT course, working group members were then responsible for on-the-job training of all nurses. Organisational measurements were taken: (1) bottlenecks are tackled in a multidisciplinary context. (2) The working groups offer up-to-date overviews for each specialisation. These include all medical and nursing protocols, either in preparation or already approved. (3) The organisation is displayed in the flow diagram Protocol Routing, with the procedures for the development of nursing protocols in conformity with medical protocols.

Conclusion: Nurses feel involved in CT. Nurses demonstrate co-responsibility for CT by completing the nursing protocol before the start of a CT. Nursing care is delivered in accordance with the nursing protocol. There is a continuing education program for new CT initiatives. The quality of nursing protocols is regularly tested. The intention exists, within the region, to collaborate by way of (electronic) exchange of nursing protocols.

1229 POSTER

Emotional processing - how nurses survive emotionally while caring for cancer patients

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Background: Nurses have a key position in caring for cancer patients. This involves facing patients and relatives in crisis, ethical difficulties in decision making, insufficient symptom control, as well as dealing with dying. A great deal of emotional and sometimes personal involvement, which can be distressing, is required. The aim of this study was to explore the main concern of nurses caring for cancer patients and develop a theoretical model of their way of resolving it.

Material and methods: In this grounded theory analysis of 46 interviews, mostly with registered nurses, we explored how these difficulties were dealt with. The interviews were coded and compared, yielding concepts and categories. Theoretical memos of the relationship between codes and categories were written and later sorted according to Glaser.

Results: Emotional processing emerged as a core strategy by which nurses managed their everyday life, and consisted of five main dimensions; shielding, confirmation seeking, chatting, self-reflecting and postponing. Shielding is when nurses protect themselves against strong emotions either by using their professional experience or by white-coat distancing when they are acting a role while nursing. Confirmation-seeking is done professionally through colleagues or patients, or personally through talking to family or friends. Chatting means ventilating emotions with colleagues or letting emotions go. Self-reflecting is sometimes done when sporting or relaxing. Some nurses ruminate about difficult situations, which could negatively affect work and private life. Postponing means that nurses are either storing emotions, to deal with them later or stashing them unconsciously, eventually into a mountain of unprocessed emotions. The postponed emotions will always pop up again.

Conclusions: The organization should encourage self-care, prioritize time and offer professional help to ensure that nurses continue working with cancer patients and at the same time survive emotionally.

1230 POSTER

The clinical trial nurse in Italy: strategies for role preparation, implementation and evaluation.

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Background: The specialized role of the nurse in clinical trials has evolved as the demand for new and more effective cancer therapies has resulted in extensive biomedical research. Complex and diverse responsibilities of the clinical trial nurse (CTN) have been described in the literature, however this role is new in Italy where minimal educational and competency requirements have not been established.

Materials and methods: A group of clinical trial nurses from the National Cancer Institutes of Napoli, Genova and Aviano began collaborating November 2002 to define the reponsibilities of the CTN as practiced in Italy, and to develop strategies for the preparation, implemenatation and evalutation of CTNs within the network of Italian cancer institutes. Contact resources were made with international oncology nursing associations and cooperative clinical trial nurse groups. After networking, discussion and a review of the literature 4 initial objectives were identified: defining the responsibilities of the CTN, developing a basic educational program for new CTNs, writing a CTN job description, establsihing a network of Italian oncology CTNs.

Results: CTN responsibilites were categorized as: patient education and advocacy, patient care and coordination of care, consultation and staff education, management of patient records and data, evaluation of clinical trial performance. Competency based job descriptions are being written based on these categories with specific responsibilites detailed across the continuum of clinical trial activity. A post graduate CTN course has been developed based on the EORTC core curriculum, requesting continuing education credits from the Italian Ministry of Health and the European Oncology Nursing Society. A CTN group has been formed within the Italian Oncology nursing association and is charged with developing a strategy for professional development and institutional recognition of the CTN role.

Conclusion: Establishing minimal education and competency requirements is critical in providing a basis for undertaking the role of CTN. Networking with CTNs nationally and internationally is essential for peer support and professional development.

1231 POSTER

Differences between quality of life questionnaires filled out in the hospital ward and in the "garden of peace" of the hospital

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Nursing of head and neck cancer patients receiving surgical, chemo- or radiotherapy is one of the most difficult challenges.

Patients treated in our department are often in advanced stage of their disease. In this form of cancer the affected nutrition and respiration function, the pain and the visible signs of the disease and its treatment worsen the ability to speak or to eat with other people that causes sever social and psychological problems for the patients besides the somatic disease.

In 2001 the nursing staff of our department initiated a new form for exploring and taking care of the above mentioned difficulty. After training for this duty the nurses began to conduct meetings for patients in a special, enclosed, peaceful part of the garden of the hospital. The patients look after the garden, plant flowers and evergreens. In that place the patients receiving chemo- or radiotherapy or healing after an operation have enough time to talk about their problems, their anxiety and to get answer for their questions.

As nurses experienced, that the patients report much more details of their condition in the garden than they do in the ward, we conducted a trial to evaluate this difference.

The aim of the project was: I. to provide a peaceful natural surrounding for the patients, where they disclose their problems and anxieties more deeply II. to bild up the best possible confidence between the patient and the nurses III. the peace of the garden has a positive influence on the patient's psychological status IV. the information given by the patients are useful in the plan of their further rehabilitation.

Method: 200 stage II and III head and neck cancer patients were asked to fill out the standard quality of life questionnaire what is part of the nursing documentation in the department first in the ward, and 2 days later in the garden, after a meeting with a nurse and with other patients.

Results: After evaluation of the data, we found, that there were no significant difference between the scores given for swallowing and breathing function, but the number of reported data about pain, sleeping disorders, problems with communication, anxiety for progression of the disease, pain and losing of friends and family members, and the time spent for filling out the form were significantly higher in the garden than it was in the ward.

Conclusion: According to the result of the trial we make every effort to involve every patient into these meetings, and the data collected there to announce to the treating physician.

1232 POSTER

Influence of educational programme on disease experience by the patients diagnosed with breast cancer and their families

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Introduction: How patients experience their disease and its consequences, as well as members of their families, are important parameters for psychosocial adaptation and finding strategy for more realistic acceptance of the disease.

Education is a powerful means for as realistic as possible disease acceptance, both by patients and their families.

Aim of the research: To investigate how patients with the breast cancer experience their disease and its consequences and also their families, before and after educational programme.

Material and methods: Experimental group consists from breast patients N= 50 after surgical, radiotherapy and chemotherapy treatment in the period of 1-5 months in N= 50 family members.

Control group includes N=50 pts. in N=50 family members.

Instruments of the research: SD questionnaire test of knowledge at the beginning and at the end of the research, educational programme and special design of the questionnaire for experience of the disease and its consequences.

Research results: Our research shows that the best effect on self-change in the new concept was achieved in domain of cultural, partners' and broader social relations, both for the diseased and their families. At the beginning, the biggest number of family members is of opinion that disease is incurable ie. 68% in the experimental group, 60% in the control group, while only 16% in the experimental group, and 20% in the control group think the disease is curable.

At the end of research, experimental and control groups show statistically significant difference of data ($P<0,5$), while control group at the beginning and at the end of research show results which are at border line of statistical significance $P=0,056$. Significant difference between obtained results was achieved, before and after conducted educational programme, on all issues related to the breast as symbol of maternity, sexuality and attractiveness, which are very important in our country.

Conclusion: After application of the educational programme, higher degree of self-esteem and self-respect of the diseased was noticed, as well as higher level of sincerity and responsibility of the family members in communication with the diseased.