

practice, we drew up quality indicators and a standard for an in-house quality control in nursing care.

**Material and Methods:** We carried out a two-year study with the aim to assess the quality of nursing at the departments of Institute of Oncology during this period. The internal control in nursing care consisted of the assessment and analysis of the selected indicators for each individual field of oncology nursing, technical medical services performed by nurses, nutrition of patients, hospital hygiene and work management. This quality control was carried out with no notice in advance. The quality was evaluated by the grades from 1-3. The quality control test was done twice a year by head nurses of the departments and once a year by a member top management staff of nursing service.

**Results:** The comparison of the results of the quality control assessments in 2001 and 2003 showed that some steps further were made in quality assurance. In some areas, quality indicators revealed improved quality, in others the quality remained stable, and in some, it decreased. The analysis of the results pointed out the reasons of some of the changes and suggested necessary measures for improvement.

**Conclusion:** We may conclude that regular internal quality control is an indispensable method of quality assessment and assurance in oncology nursing care that can increase safety and effective care and improve work organization. At the same time, such an internal quality control provide firm foundations for research work of nurses and facilitates further development of oncology nursing.

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POSTER

### Improving standards of care through communication within a oncology haematology team - the clinical nurse specialists role

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**Background:** Nurses are increasingly taking on leading roles in specialised areas and advanced practices such as stem cell transplantation research and the development of care guidelines. In the UK, cancer care is currently in the spotlight of government initiatives, the recent government papers The NHS plan (2001) and Making a Difference (1999) have identified key areas of reform and innovation to develop new ways of working for nurses to improve patient care, standards and quality.

In Oncology, the special needs of patients and their families are well documented, but studies suggest that patients are still often dissatisfied with the level of communication. The challenge therefore is for nurses to take advantage of this opportunity and explore ways of bridging this communication gap to improve the standard of care provided.

**Method and Results:** Against this background, the purpose of this poster is to present a communication pathway for nurses and the rest of the multi-disciplinary team to provide optimum care for patients undergoing a stem cell transplant. This will be in the form of a flow diagram. An audit tool has been designed to establish the gaps in the service. Recommendations will be included to demonstrate ways of enhancing the standard of communication and information provided.

#### References

- [1] Department of Health, (1999) Making a Difference. London. Department of Health.
- [2] Department of Health, (2001) The NHS Plan. London. Department of Health.

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POSTER

### Benchmarking - Does it make a difference at the bedside

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Benchmarking has been used as a tool in quality management since 1967. It was first used as a tool to measure standards and assess practice in an accounting firm in Australia and has since been developed and used in healthcare throughout the world Ellis's (2000). Pioneering work has demonstrated that clinical benchmarking is proving to be a valuable practice development and quality development initiative in the field of paediatrics. Clinical benchmarking helps to define what is best practice, creates patient outcome measures, and monitors whether clinical practice mirrors identified standards. It enables action plans to be instigated to problem solve and address areas where practice falls short of agreed standards of best practice. In deciding which areas to benchmark first we asked two questions. 1) What would make the most significant improvements on our relationship

with our patients? 2) What would make the most significant improvements for our patients in our utilization of resources? The first 3 benchmarks looked at were; privacy and Dignity. Nutrition and Pain. A multi-professional team approach was used to develop standards and the benchmarking programme. We also wanted to assess the impact of benchmarking at the bedside and ascertain if it made a difference there. This presentation will demonstrate the introduction and development of a clinical benchmarking programme on a BMT unit and will discuss our experience of the impact of benchmarking for the patient.

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POSTER

### Effect of pain on quality of life in patients with mastectomy in Turkey

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**Purpose:** To investigate the relationship between pain and quality of life in patients who undergone mastectomy to determine different aspects the quality of life (QOL) for patients with pain.

**Materials and Methods:** The data for this descriptive study were collected from 72 patients who undergone mastectomy in two university hospitals in two different cities in Turkey between May 2002 and July 2002. Data were collected by using Quality of Life Scale, Pain Severity Scale and a questionnaire form.

**Results:** Of all the patients, 95.8% (n=69) stated that they had been experiencing post-operative pain and over a total pain score of 100, the mean pain score was established to be 32.50 (SD=27.88). A total of 51 patients (70.8%) reported constant or intermittent mild/moderate pain generally localised at armpits, arms, shoulders or surgery site. The difference was not found to be statistically significant concerning the QOL scores as a whole or in part for the patients reported to have experienced pain and for those who reported no pain (p>0.05). A significant negative correlation (p<0.01, r=-.378) was observed between the QOL scores of patients with pain at the time of their interviews and their pain scores. Total QOL scores for patients with pain who were receiving radiotherapy or chemotherapy were not significantly different than those of patients who were not receiving therapy (p>0.05).

**Conclusion:** Patients who performed mastectomy have a poorer perception of life quality. Pain is a major influence on the QOL perception. A significant negative correlation exists between the QOL and pain scores. Nurses and physicians should collaborate in order to establish appropriate approaches of pain management by also considering patient opinions.

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POSTER

### Incidence of bacteremia after change of care of tunnellated central venous catheters (CVC) in children with cancer.

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**Objectives:** Tunnellated CVC-related blood stream infections are frequently seen in children with cancer. The quality of care of the inserted CVC is of great importance for reducing CVC-related bacteremias.

**Methods:** Having observed an increased incidence of CVC-related infections we changed the guidelines for the care of the CVC from a non touch technique (period 1) to a sterile/non touch technique and staff education (period 2). The CVC-related infections were retrospectively investigated in two 8 months periods prior to and after the change of guidelines.

**Results:** During period 1, 49 isolates in 43 febrile episodes with bacteremia were seen in 1683 admittances (1:39.1 admittances were caused by bacteremia). The episodes occurred in 27 CVC from 24 patients (9 had solid tumours and 15 had leukaemia). The total number of days for 27 CVC was 3547

During period 2, 42 isolates in 33 febrile episodes with bacteremia were seen in 1905 admittances (1:57.7 admittances) occurring in 24 CVC from 19 patients (7 had solid tumours and 12 had leukaemia). The total number of days for 24 CVC was 3727. The spectrum in microorganisms was unchanged.

**Conclusions:** The aim of the study was to show if our change in guidelines has resulted in less CVC-related infections. The number of bacteremias related to the number of admittances was lower in period 2 compared with period 1.

The results will be related to the total number of catheterdays (all CVCs

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.

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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.

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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<sup>2</sup>, 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

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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.

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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