ing in amifostine administered with reasonable tolerance. Amifostine has significant side-effects, the most important being nausea/vomiting, hypocalcemia and hypotension. Here we report that, since we added a taxol-like premedication to the anti-emetic regime, the incidence of hypotension has been greatly decreased. Our nursing guidelines are based upon its use in three protocols over four years of experience.

1452 ORAL

## Reflections about nursing during highly aggressive chemotherapy especially in peripheral blood stem cell transplantation

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**Purpose:** On behave of our personal experience with patients during high dose chemotherapy the extreme isolating rules in nursing are questioned. Probably it is possible to use an individualized nursing with improved social contacts between nurse, patient and social surrounding.

**Method:** Since 1994 about 70 patients were treated with high dose chemotherapy in curative and palliative intention in our department. First all therapies took place in the BMT unit in isolated rooms with positive pressure filtered air, later they were performed at regular oncological and hematological wards. Data base is our personal experience and the written clinical observations.

**Results:** Not being able to perform the extensive nursing criteria we observed in spite of our skepticism that this kind of nursing costs no obvious damage and improves quality of life. On medical items as mortality and infection rate this needs to be proved. Still some problems concerning nursing need to be solved. For us the loose of regulations and standardization causes insecurity. The expectation to keep "in touch" with the patient over a long time period although he is not necessarily sympathetic is a constant effort. How many and what kind of rules respectively structure do we need is an open question. It is necessary to work as a team of nurses, doctors, social workers and psychologists to perform this kind of intimate nursing. Professional supervision to support the team is essential.

**Conclusion:** It is necessary to discuss this experience in forum of involved people. We are not able to find all answers and instructions just by doing. Further research is required.

1453 ORAL

## Acute renal failure in the oncological ITU: A five year retrospective study

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The Royal Marsden NHS Trust has Britain's only Intensive Care Unit that cares for patients with cancer. Over 70% of patients who require intensive care are suffering from Septic Shock or Severe Sepsis and there is therefore a high proportion who present with or go on to develop Acute Renal Failure. In common with other Cancer ITUs the most common form of Renal replacement therapy used is Continuous Veo-Venus Haemodiafiltration (CVVHD).

**Aim:** 1. To collect five years data on the numbers of cancer patients who develop acute renal failure necessitating therapy and identify predisposing factors. 2. To look at outcomes over the 5 year period. 3. To examine the CVVHD technique and the nursing associated with it. 4. To examine the properties of the new Bio-compatibility membranes and their use in removing Cytokines. 5. Cost and Resource implications.

1454 ORAL

## Enhancing patient care: The role of a lymphoma clinical nurse specialist in the UK

V.J. Goode. *Christie Hospital NHS Trust, Manchester*

**Purpose:** This paper will describe the work and impact of a lymphoma clinical nurse specialist in a large cancer centre in the United Kingdom. Funding was secured by the Cancer Relief Macmillan Fund and it is believed to be the first post of it's kind in the UK.

**Brief Description:** The incidence of malignant lymphomas is increasing. Research shows that cases of Non-Hodgkin's lymphoma increased by 20–50% world-wide every five years during the 1970's and 1980's (Coleman et al 1993 and Hartge et al 1994). Despite this increase, there is often a lack of knowledge amongst both the general public and health professionals about the disease and it's management.

The complexity of lymphomas in relation to aetiology, pathology and presentation necessitates intricate patient assessment and management if successful patient outcomes are to be achieved. Today there is evidence that patients treated in protocols do better than those who are not and there are trends to more intensive treatments and shorter in-patient times.

**Conclusion:** It was identified that patients lacked nursing input in terms of support, information and education while undergoing staging and often combined modality therapies. The lymphoma nurse specialist post affords an exceptional opportunity to combine medical knowledge and clinical expertise (e.g. performing bone marrow biopsies) with the ethos of nursing in order to enhance the total care of the patient.

1455 ORAL

## Extending the role of the clinical nurse specialist in Medical Oncology/Haematology

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**Purpose:** Within the Department of Medical Oncology/Haematology, there is a rapid turnover of junior doctors. It was acknowledged that there were problems associated with some routine procedures being carried out, including the insertion of central venous catheters (CVC) and bone marrow sampling; patients waiting an unacceptable length of time, no documented procedural policies, a higher than average number of CVC insertion related complications, and a large number of inadequate bone marrow samples. It was decided that a Clinical Nurse Specialist (CNS) trained to carry out these procedures could help to address the problems.

**Methods:** Training of the CNS was supervised by the Senior Consultants and Registrars in Medical Oncology and Haematology. Following completion of training, a formal assessment of competency was documented.

**Results:** The CNS has inserted more than 500 CVC, and undertaken 900 bone marrow procedures A documented procedural policy has been established. CVC insertion related complications have been reduced, and adequate bone marrow samples are consistently obtained.

**Conclusion:** A CNS trained to perform routine procedures has resulted in an improved service for patients. Junior doctors have the opportunity to perform CVC insertion and bone marrow procedures with help and supervision from an experienced operator.

1456 POSTER

## Intratumoural collagen/chemotherapy: Novel therapeutic strategy for accessible tumours

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Chemotherapy is conventionally delivered systemically. In an effort to deliver more drug to the tumour site, improve local control and minimise the morbidity of systemic chemotherapy, regional chemotherapy can be administered by a variety of ways including the intra-arterial, intrathecal and intraperitoneal routes. Many formulations for direct injection of chemotherapy into tumours have been investigated.

A novel gel delivery system which allows high chemotherapy concentrations by association of active drug suspended in a collagen gel has been developed. The addition of adrenaline to the mixture limits the diffusion of drug away from the injection site. By this means cisplatin and fluorouracil may be administered locally. Initial pilot studies have shown tumour responses despite previous failures with systemic chemotherapy with minimal toxicity for the patient.

Multicentre studies are currently in progress to determine efficacy and toxicity of this approach to the management of accessible tumours.

A key aspect of these studies has been the training of a specialist nurse in all aspects of preparation and administration of the system to act as a resource to all disciplines involved in its use.

We will present our experiences with this method of treatment and demonstrate the value of the specialist nurse in evaluating treatment toxicity versus patient benefits with the aim of improving quality of life.

1457 POSTER

## Professional nursing aspects of pulsed dose rate (PDR) brachytherapy

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**Background:** Since June 1993, 80 patients with gynaecological and anal

cancer have been treated with PDR brachytherapy in The Finsen Center. For the brachytherapy up to 20 needles are implanted in the tumour. After the implantation the patients are connected to the PDR-microSelektron. PDR brachytherapy is given as a 15–30 minutes pulse every hour over nights. The patients are partially isolated and immobilized for 40–60 hours. The patients need to be taken care of during pauses in the therapy. It is important to find the balance between advanced technology and nursing care. Because of the limited literature available, 2 pilot studies have been made.

**Purpose:** The purpose of the studies is to ensure and increase the quality of nursing to patient during and after PDR brachytherapy. The goal is to identify and describe the impact of the treatment upon 7 selected issues.

**Materials and Methods:** In the first pilot study, data from 9 gynaecological patients have been recorded. The selected issues included blood pressure and pulse, technology, pain, fluid balance, obstipation, and side effects after treatment. In the second pilot study, nausea and vomiting in 24 patients with anal and gynaecological cancer have been recorded, according to Common Toxicity Criteria and WHO. The investigations are retrospective and medical records, nursing records, and observation forms have been used.

**Results and Conclusion:** Apart from pain during the treatment, the studies showed decreased blood pressure, agglutination in the vagina as well as vomiting during the treatment in spite of antiemetics. The new nursing procedures resulting from the two pilot studies will be presented.

1458 POSTER

## Arranging the transportation of biologic samples: Beware of the implications!

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In Clinical Research settings nurses are often the ones arranging or preparing the transportation of blood or tissue samples for diagnostic or research purposes. Legally, they are thus responsible for the shipment, the documentation and the packaging of the goods.

However, they are often uninformed on the legislation concerning the transport and packaging and unaware of the actual responsibilities related to this task.

In our hospital a procedure for shipments was written and the materials needed inventorized. Infectious substances with a low individual and community risk according to the WHO classification of infectious substances risk group 1 are not subject to any transport requirements. Most diagnostic samples are subject to instructions for diagnostic products with a low probability for containing pathogens WHO risk group 2 and 3 (moderate/high individual risk, low community risk).

The transport regulations include the packaging material, the marking, the labelling and the documentation. Transportboxes must be able to withstand a drop test of 1.2 metres, the transported material must be wrapped in absorbant material in a leak-proof inner container. Dry ice requires specific marking and labelling as hazardous material.

The regulations, as will be presented, will provide colleague nurses in similar situations with the information necessary to either meet the challenge or redecide on their involvement in such shipments.

1459 POSTER

## Comparison of two types of central venous catheter (CVC) in a population of patients with bone sarcoma

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The positioning of central venous catheter (CVC) is nowadays a common modality for patients treated with long antiblastic therapies. This use of catheters implies high costs and complications, which can be prevented by a careful nursing practice and good information for patients. Moreover, the different characteristics of the various types of catheter may play an important role on costs and incidence of complications too.

We wanted to verify the efficacy and safety of two different systems: one with closed tip (A), the second with open tip (B), on a group of patient with bone sarcoma treated with chemotherapy regimens, lasting from 9 to 11 months. Seventy-three patients (24 males, 49 females; median age 14, range 3–60), treated between January 1995–April 1996, were evaluated. Fourty patients had a type-A and 33 a type-B CVC.

The correct positioning of the CVC was assessed by plain roentgenograms. Blood samples for culture tests from CVC were made before every chemotherapy treatment. In case of suspected infection, the blood samples for culture tests were taken also a from a peripheral vein. There were no differences as regards sex, age and pathology between the patients with type-A or type-B CVCs.

The CVC had a median implant duration of 258 days (range 7–377) without differences between type-A and type-B.

Fourteen CVCs (19%) were removed before the expected time (median 86 days, range 7–371) Nine of those were type-A and 5 were type-B (p 0.6206) The causes were 8 symptomatic infections (4 tipe-A, 4 type-B); 4 bad positionings, 1 for PNX (3 type-A, 1 type-B) and 2 type-A catheters moved out spontaneously.

Twenty-nine pts (14 type-A, 15 type-B; p = 0.504) showed a CVC culture positivity once at least.

Ten pts had an infective situation with clinical manifestations which led to catheter removal in 8 cases. We also evaluated the number of all the interventions on CVCs such as connections, blood taking, heparinization and washing.

Comparing all the data, we saw no significant differences between the two types, so we decided to adopt the type-B CVC permanently due to its extremely low cost in comparison with type-A.

1460 POSTER

## Nursing views on complications of subcutaneous venous access ports

D. Verhoeven, A. Vanchaze, S. Goorden. *Department of Oncology, KLINA, Antwerp, Belgium*

**Purpose:** In our hospital, the number of patiënts with a venous-access-port increase continuously. The allied problem for the oncology-nurses is the higher number of complications. In the beginning, the nursing-team had the impression that our hospital was the only one with problems? ... But, after consulting fellow-nurses of neighbour hospitals, we saw that they had the same problems. Therefore, we setted up two inquiries: one for oncology-nurses and a second for oncology-patients.

**Methods:** *Inquiry of nurses:* During a period of three months, a questionnaire was given to twenty nurses. They were all working in the oncology-floor. We asked the nurses to give us their 'Top-3 of problems/complications' by manipulations of venous-access-ports.

*Inquiry of patients:* During the same period, another questionnaire was given to thirty cancer-patients with a subcutaneous-venous-access-port. The average of 'port-days' was 202 days. We asked the patients to sum up their most important problems.

**Results:** *Inquiry of nurses:* The 'Top-3' was divided as follows: 60% of the nurses had problems with drawing blood. 30% with catheter-occlusions and 10% had prick-problems at obese patients.

*Inquiry of patients:* The problems summarized by the patients were as follows:

37%: afraid of the needle-prick. 21%: pain by pricking the port. 16%: catheter-occlusion. 16%: limitation of daily-activities. 10%: port-infections/thrombophlebitis.

**Conclusion:** It is clear that there are indead several problems concerning the venous-access-port. In spite of the results of these inquiries, the oncology-nurses as well as the cancer-patients preferred the venous-access-port to a peripherally perfusion. Especially, the safety, and the patients-comfort were decisived. A local anaesthesia (xylocaine-spray) to overcome the pain of the needle-prick seems important.

1461 POSTER

## The role of scientific nurse in management of clinical trials in chemotherapy department

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**Purpose:** To demonstrate the importance of cooperative work of doctor and nurse in management of clinical trials.

**Methods:** The work of nurse has two major arms: I. Clinical part. II. Research part.

(1) Clinical part includes:
   (a) The control of patient's diagnostic procedures schedules.
   (b) Taking and proceeding of blood and urine samples; preparation of samples for transportation (serum separating smears for clinical analysis, labeling for each patient, filling in the documents).
   (c) Drug administration with the use of special equipment, i.e. infusomats and special i.v. system.