

staff members due to cost reductions, the need for action to prevent spread of disease is increased. Our hospital is referral center for a population of about 1 million. In 1995 and 1996 we treated 34 patients with acute leukemia and performed 61 stem cells transplantations. The total cost for the ward with 15 beds and 700 hospitalizations was  $\approx 10$  million US\$ during 2 yrs, with 10% spent on drugs. The cost of chemotherapy and antibacterials were  $\approx 250$  kUS\$ each, antifungals 110 kUS\$, antiviral therapy 40 kUS\$, and microbiology 120 kUS\$/2 yrs. Blood cultures are always taken from patients with hematologic disease and fever; there were 1283 blood cultures/2 yrs, of which 15% were positive, and 126 individuals with sepsis were diagnosed. Of 361 positive blood cultures, 32% grew coagulase-negative staphylococci, 16% *E coli*, 9% *S aureus*, 9% enterococci, and 6% alpha-streptococci.

Single-bed rooms, adequate hygiene routines and staff education are essential for the prevention of infections. We use barrier nursing, with frequent disinfection of hands with spirits, gloves when in contact with body fluids, cover coat/plastic apron during direct patient care, protective glasses when needed. Central venous catheters are dressed during sterile conditions at least once weekly. Premature withdrawal of central catheters due to infections have been very rare.

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POSTER

### Prevention of extravasation during application of cytostatics via peripheral veins

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In Slovenia, application of cytostatics is performed by nurses. The procedure entails a risk of extravasation – spilling of the drug into the skin and subcutis.

An occurrence of extravasation was registered in pt. record only when it was associated with true necrosis and ulceration which required skin transplantation.

In 1995 the Nursing Service of IO proposed a standard on the steps to be taken in the case of extravasation. On presentation of this program, we organized brief group discussions with nurses; 7/27 admitted to having an experience with extravasation. Disrupted monitoring, insufficient informing of patients and technically inadequate venous puncture were identified as possible reasons.

In 18 months following the introduction of our standard, we registered 15 extravasations of degree 1–2, and only 2 cases of degrees 3 and 4 (WHO toxicity criteria). In all the cases the affected site was treated according to the standard accepted. The affected site was upper side of the palm (10x), inside of the lower arm (5x), and back side of the lower arm (2x). Most frequently extravasation occurred after Adnamycin application (8x), while the most severe sequelae were noted after Mitomycin (1x); cytostatics were always given in infusion (up to 30 min), using a 0.8/25 mm needle, in patients who had already had >3 cycles of ChT. In 12 cases the symptoms were noted by the nurse, and in 5 cases by the patient.

It can be concluded that the occurrence of extravasation could be either prevented or its consequences brought down to minimum by the use of the standard accepted. However, further training and education of nurses in the correct technique of cytostatic application is indispensable.

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POSTER

### Coping effectiveness in patients on chemotherapy for metastatic cancer

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**Purpose:** To examine the effectiveness of the coping strategies of cognitive escape-avoidance, behavioral escape-avoidance, distancing, focusing on the positive, and seeking social support in advanced cancer patients receiving chemotherapy.

**Methods:** The Lazarus and Folkman stress and coping model (1984) guided the study. Data were collected in a convenience sample of 132 patients, age 33 to 83 from the metropolitan area of New York. Most of the patients had breast (30%), ovarian (20%), lung (13%), and colorectal (10%) cancer. Coping strategies were measured using the Ways of Coping Inventory for Cancer Patients (Dunkel-Schetter et al., 1992). Coping effectiveness was assessed by level of psychological distress using the Profile of Mood States (McNair et al., 1992). Data were analyzed using the Person product moment correlation and multiple regression analyses.

**Results:** The coping strategies of distancing, cognitive and behavioral escape-avoidance relate individually to psychological distress. Distancing was negatively related ( $r = -0.25$ ) and cognitive and behavioral escape-avoidance were positively related ( $r = 0.38$ ) to psychological distress ( $p <$

0.01) Collectively the coping strategies explained 36% of the variance of psychological distress.

**Conclusion:** Distancing was found to be an effective coping mechanisms in advanced cancer patients; while cognitive and behavioral escape-avoidance were found to be ineffective

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POSTER

### Central venous access removal in a haemato-oncology unit: A prospective audit

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Patients receiving intensive treatment (including blood and marrow transplantation) for haematological malignancies will often require placement of central venous access devices. Resultant neutropenia increases the risk of developing systemic sepsis arising from a break in skin integrity with staphylococcus aureus being a common organism.

In many clinics areas central venous access is removed when the patient becomes pyrexial and unresponsive to antibiotic therapy. Within the leukaemia and myeloma units an audit was undertaken over a 6 month period of all central venous access removal to determine reason for removal and any effects on pyrexia and incidence of systemic infection.

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POSTER

### Developing a model for evidence based practice within an acute cancer centre

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**Purpose:** A model of nursing based on evidence was developed to meet patient and professional needs, and the demands of purchasers within the internal market of the health service.

**Method:** The paper describes the impetus for the development of evidence based practice as a network of variables including; the needs of patients and relatives, nursing and multi-professional priorities and the emergence of new knowledge within an acute cancer treatment centre. Effective sources of evidence are reviewed, and both advantages and constraints are discussed with particular reference to specific standards set: "a psycho-social approach to care of patients with cachexia" and "an innovative approach to the care of patients of varying cultures and religions".

**Results:** The benefits of the standards set are reviewed from the perspective of both patient need and the professional development of nurses involved in the process.

**Conclusion:** The model adopted was effective in bringing about an improvement in the quality of care

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POSTER

### Mucositis prevention (PM), nursing protocol

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The chemotherapy agents present different toxicities, therefore, the associated problems to them can be very varied, including those that affect our population of patients that receive chemotherapy (QT) and/or radiotherapy (RT) approximately the 40% develops oral mucositis (M) or gastrointestinal one causing a damage in the life quality according to literature. This is due basically to two mechanisms: a direct effect of the drug over the mucosa and an indirect mechanism produced by the mielosupresion.

Mucositis is mostly associated to antimetabolites and antibiotics, increasing with the concomitance of RT and the conditions related with the patient (age, nutrition state, feeding habits, consumption of tobacco and alcohol).

PM in our Service comprises daily review of cavities, nursing evaluation, treatment and use of solution developed in the unit (bicarbonate, 5.6% + nistatine, 0.5% diluted in bi-distilled water), which is indicated as colutory every 4 hours, plus nistatine oral every 6 hours, that according to the protocol is used from the beginning of the QT up to 7 days afterwards. Because of the use of this protocol severe mucositis has showed in 4 patients in a period of 3 years, corresponding to the 0.2% of patients. Even though it is not a comparative study, the preventive therapy seems to obtain important benefits as it reduces complications. This year it will be done a random study to evaluate counter other protocols.