1516 ORAL

Arm massage before chemotherapy: a randomised exploratory trial

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Purpose: Cannulation is technically easy, but can be problematic and time-consuming in patients needing repeated cycles of chemotherapy. Damage inflicted to veins, and patients' anxiety, serve to hinder the process. Some patients become needle-phobic; many recall the anxiety associated with cannulation many months or even years later.
This study investigated the impact of gentle effleurage arm massage on cannulation for chemotherapy. Primary outcomes of interest were patients' perceived anxiety and pain both pre and post procedure. Secondary outcomes related to the ease of the cannulation process as perceived by the cannulating nurses.
Methods: A randomised trial of massage versus usual care was undertaken. 52 patients were recruited and providing data on 266 cannulation episodes. Patients completed an investigator designed questionnaire immediately pre- and post-cannulation. This determined levels of anxiety, and both anticipated and actual pain. Cannulating nurses completed a questionnaire to record condition of veins, cannulation time and number of cannulas used. 15 patients took part in a telephone interview to provide understanding of their experiences of massage.
Findings: Results of statistical testing suggested that massage was ineffective in reducing anxiety, pain or facilitating cannulation. Overall 25% of cannulations were unsuccessful on first attempt, and there was considerable variation in reported anxiety and pain. Statistical modelling through backwards stepwise regression was undertaken to determine factors that impacted on these outcomes. This suggested that massage had a statistically significant effect ($p < 0.05$) on anxiety and pain when combined with other factors: age, gender, drug regime. Women, younger patients, and those on vesicant drug regimes were more likely to experience procedural pain and anxiety. Typically they took longer to cannulate, and appeared to derive most benefit from massage.
Conclusions: Cannulation can be very stressful and painful for patients undergoing chemotherapy. Massage may be a pleasant, non-invasive means of facilitating the process, and for certain patients in this study proved effective, but not all. Massage may provide clinically important outcomes in younger female patients being cannulated repeatedly with vesicant drug regimes, however this requires further investigation.

1517 ORAL

Risk factors for venous thrombotic events in patients with head and neck cancer treated through a peripherally inserted central venous catheter

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Venous thrombotic events are a frequent complication in cancer patients. Among others, prothrombotic factors related to cancer disease, chemotherapy administration and venous access devices are considered to play an important role in the development of venous thrombosis. Although continuous infusion through a peripherally inserted central venous catheter (PICC) with an ambulatory pump increases quality of life and reduces hospitalization, it may be associated with a higher risk of venous thrombosis. Since nurses make decisions about the most suitable access device to be placed it was our concern to do a better risk assessment to detect the likelihood to develop a thrombotic event.
Aim: To determine the incidence of venous thrombotic events related to the chemotherapy administration system and possible risk factors in patients with head and neck (H&N) cancer treated with 5-Fluorouracil (5-FU) based chemotherapy.
Material and Methods: We reviewed the records of patients with H & N cancer treated with Carboplatin (AUC 5) or CDDP (70–100 mg/m^2) day 1 plus a 5-day continuous infusion of 5-FU (1000 mg/m^2) administered through a polyurethane PICC and a portable infusion pump. Variables investigated were lymph-node extension, performance status, number of cycles of chemotherapy, risk factors for vascular disease, hemoglobine level, platelet count, concurrent or sequential radiotherapy and PICC insertion site.
Results: Thirty-six patients with H&N cancer were included in the study. Median age was 56 years (range: 34–78). Thirty-five patients (97%) were male. Eleven patients (30.6%) had risk factors for vascular disease. Twenty patients (57.1%) had laterocervical lymphadenopathy. Performance status before therapy was 0 in 17 patients (47.2%), 1 in 18 patients (50%) and 2 in 1 patients (2.8%). Number of cycles of chemotherapy given was 1 in 3 patients (8.3%), 2 in 10 (27.5%) and 3 in 23 (63.9%). Twenty patients (55.6%) received concurrent radiotherapy and 16 (44.4%) sequential radiotherapy. Median hemoglobin level was 12.7 g/dl (range: 10.7–16.3) and median platelet count was 216,000 per microliter (range: 143,000–407,000). PICC tip was located in the cava/atrium in 85% of the cases and in the subclavia in 15%. Four patients presented a venous thrombotic event (11.1%). Of note thrombotic events were only observed in patients with cervical lymphadenopathy; no patient without lymphadenopathy presented such a complication ($p = 0.04$).
Conclusion: Patients with H&N cancer with cervical lymphadenopathy seem to have a high risk of developing venous thrombosis when receiving therapy through a polyurethane PICC. If confirmed in other studies, these results would make it necessary to investigate other administration techniques and/or infusion devices in this group of patients.

1518 ORAL

Decision-making at the end-of-life in critically ill cancer patients

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Decision-making at the end-of-life is frequently difficult for cancer patients, their families and the staff caring for them (Davison and Degner, 1998). This distress is often exacerbated if a patient is also critically ill (Price and Kish, 2001). According to the ethical principles of distributive justice, cancer patients should not be denied access to critical care services. Cancer treatment often has a curative intent, or is intended to provide an extended survival time.
Despite improving figures, the presence of a critical illness will raise mortality rates considerably above that which would be seen with a primary cancer diagnosis (Groeger *et al*, 1998; Kress *et al*, 1999; Sculier *et al* 2000; Staudinger *et al*, 2000; Nelson *et al*, 2001). Significant numbers of patients use critical care services for cancer treatment-induced critical illness and a proportion of those subsequently deteriorate to the point of futility. At this point good decision-making is required to ensure the move to end-of-life care is timely and appropriate. Care at this point is at risk of becoming fragmented for those cancer patients in critical care at the end-of-life.
These cancer patients have to face the dilemma of initially undergoing treatment intended to prolong life or save life and then, when futility is apparent, the focus of care is redefined. Nurses then have to respond to the needs of a dying patient and their loved ones and are in a prime position to ensure, by acting as patient advocate, that the decision-making is an inclusive process, patient needs are paramount, the practical aspects of withdrawal lead to a smooth transition and that comfort measures are implemented.
This presentation will review the literature, explore the ethical debate around critical care provision for cancer patients in Europe, what precipitates decisions to move to end-of-life care and the subsequent impact upon care. The following phenomena will be discussed in relation to cancer patients:
– over-treatment
– decision-making and conflict
– covenants of care and cancer patients
Two case studies will be presented to exemplify the issues raised by the literature review. Finally, how good decision-making at end of life in critically ill cancer patients can be enacted, and conflicts in care paradigms can be resolved, will be proposed.

1519 ORAL

CAM – a very confusing title, so which is which?

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Alternative medicine must be distinguished from complementary therapies by examining the promoted purpose of the method in order to clarify this dissimilar collection of therapeutic techniques. Alternative cancer therapies are products and treatments recommended for use instead of mainstream cancer care and can be a vast collection of disparate, unrelated regimens and products ranging from adjunctive modalities which can enhance quality of life to bogus therapies that claim to cure cancer and thus may harm the patient both directly and indirectly. Consumers are at the mercy of those who promote unproved remedies, many of which can be purchased over the counter or Internet. These treatments are unproven, harmful, costly, time-wasting and possibly invasive. Complementary therapies, in contrast, serve a complementary role in conjunction with conventional medicine and their aim is to improve quality of life and symptom control. They are often used as part of wellness and health maintenance programmes and many regimens are part of preventive medicine and supportive care. Complementary therapies tend to be non-invasive, inexpensive and widely helpful. However, frequently when reference is made to "alternative" approaches, the therapy

under discussion is "complementary" and this adds confusion in terms of perception and understanding. This paper aims to describe and identify the differences between alternative and complementary therapies as used by people diagnosed with cancer. Many patients are requesting information from their nurses in relation to the usage of alternative or complementary therapies or may be accessing inadequate information from the Internet. Many patients refuse to admit their usage of CAM to their hospital multi-disciplinary team. This paper explores the efficacy of current alternative and complementary therapies and discusses and recommends their role in relation to patient safety.

Meet the Manager
Cancer plans: implications for nurses

1520 INVITED

Cancer plan in UK: implication for nurses

C. Miller. *Guy's and St. Thomas' Hospital, Executive Nursing and Management Office, London, United Kingdom*

The Department of Health introduced the Cancer Plan in 2000 to modernise cancer services. The aims of the plan are to tackle inequality in cancer care provision and to provide new facilities and treatments to ensure the most appropriate evidence based care. To achieve this, is the commitment to expand the multiprofessional specialist workforce, ensuring best contemporary cancer care.
At the heart of the plan was to involve patients and carers in designing and evaluating the services provided in a unique relationship with health care professionals.
The session will discuss the unique contribution of cancer nurses in the implementation of the modernisation programme and the challenges faced in sustaining change in a complex health environment.

References

[1] DOH Cancer Plan 2000, Department of Health, HMSO London.

1521 INVITED

Cancer care management: implication for oncology nurses

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The oncology nurse attends not only to the physiologic needs of cancer patients but also to the educational, economic, logistic, and psychosocial factors that have impact on quality of care. Management of cancer patients' care from the first day of admission to the last day of hospitalization becomes more difficult in connection with today's short periods of hospitalization. Extending nurses' roles and responsibilities and their vigilant attention to "patient care maps" help keep the multidisciplinary healthcare team on schedule, reduce costs and maximize hospital resources.
Patient and family education along with hand-out education materials, both provided by the oncology nurse, facilitate the process of cancer treatment and improve patient compliance and patient satisfaction with health care. Also, these activities can cut down health care and mainly emergency care expenses.
Oncology nursing assists cancer patients through their illness and along the continuum of care, regardless of whichever pathway is chosen.

1522 Abstract not received

Podium session
New developments in the treatment of cancer

1523 INVITED

Targeted therapy and its impact on nursing care

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Many new cytotoxic agents and novel targeted agents have been developed recently. Targeted therapy has an increasing importance in the management of cancer patients. It is expected that targeted therapies will increase the efficacy of anti-cancer treatments. They are directed towards the molecular "switch" that activates or deactivates the process or protein in the cancer cell that is altered during the process of carcinogenesis. Because targeted therapies are also focused, many have a favourable safety profile compared with cytotoxic drugs. These new developments make the task of the physician and of the nurse involved in the care of cancer patients more complex. The oncology nurse plays also an important role in the treatment and guidance of patients with cancer through the different treatment stages and options.
The novel targeted therapies under development include: monoclonal antibodies and tyrosine kinase inhibitors. These agents act/interact with a variety of targets, such as the Epidermal Growth Factor Receptor (EGFR), the Vascular Endothelial Growth Factor (VEGF) and many different tyrosine kinases. The targeted agents also play a role in wide variety of different tumours. The activity of the EGFR- and angiogenesis inhibitors is shown in an increasing number of different tumour types. Many of the novel targeted agents are used in combination with cytotoxic agents. The oncology nurse should therefore also understand the mechanism of action of these drugs, the possible indications and also the toxicities. Indeed with the implementation of novel targeted agents, a new variety of toxicities are seen. EGFR inhibitors cause frequently dermatologic side-effects. Since the experience with EGFR inhibitors is growing, the experience on the management of skin toxicity is also growing. VEGF inhibitors cause a different type of toxicity: hypertension, proteinura, bowel perforation and arterial thromboembolism. The oncology nurse has also to become familiar with specific aspects of novel targeted agents: the increasing use of oral treatment, often prolonged treatment periods and the use of new endpoints in clinical trials. In clinical trials the oncology nurses are also often confronted with new aspects such as the increasing importance of obtaining tumour biopsies for pharmacodynamic studies.
Conclusion: targeted therapy has a rapidly increasing role in cancer treatment. The oncology nurse is therefore confronted with many new challenges.

1524 INVITED

New developments in adjuvant therapy in colon cancer

A. Sobrero. *Ospedale S. Martino, Genova, Italy*

The adjuvant treatment of colon cancer has been one of the most successful fields of medical oncology in the last 15 years. Following the demonstration that 12 months of FU plus levamisole was efficacious as compared to no treatment in stage III disease, in 1990, a series of sequential improvements have been made.

1. Twelve months of chemotherapy are not needed, since 6 months of FU plus LV are equally effective.
2. Elderly patients benefit from adjuvant CT as much as younger patients.
3. High risk stage II patients have a worse prognosis than low risk stage III (this must be viewed as a new important development in this field because it constitutes the basis for the selection of stage II patients who may benefit most from adjuvant CT).
4. The convenient regimen of capecitabine (oral fluoropyrimidine) is as effective as, but less toxic thanstandardbolus FU plus LV.
5. The addition of oxaliplatin to infusional or bolusFUfurther enhances the benefit of adjuvantCTover FU plus LV.
6. Stage II patients significantly benefit from CT, although the absolute gain is limited due to the relatively low overall risk of relapsing. This long series of successes is bound to become longer since the very promising results obtained in the advanced setting with the combinations of CT plus the targeted agents cetuximab or bevacizumab may translate into even higher cure rates when used in the adjuvant setting of this disease. The identification of molecular markers, predictors of prognosis or treatment outcome, is the other potential but likely area of improvement in this field.

1525 INVITED

New developments in the therapy of breast cancer

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Important data in the treatment of breast cancer have been presented during the last 12 months. The ARNO/ABCSG study showed that switching from tamoxifen to anastrozole during the 5 years of adjuvant endocrine therapy for hormone-sensitive breast cancer is associated with an improvement in disease-free survival. The first results of BIG 1-98 showed a 20% improvement in disease-free survival for letrozole versus tamoxifen. Aromatase inhibitors and tamoxifen have a different safety- and toxicity profile.
The sequence of FEC-100 $\times 3$ followed by taxotere $\times 3$ was superior when compared to FEC $\times 6$ in the adjuvant setting of high risk breast cancer.
The St. Gallen Consensus Conference made a major change regarding the selection criteria for choice of adjuvant treatments. Whereas in the past the risk of relapse was the most important criterion for the treatment choice, in 2005 the panelists used endocrine responsiveness not only for