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Forum: Recent Developments in Cancer Nursing

Reports

Recent Developments in Cancer Nursing

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Overview

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Cancer nursing is a relatively young specialty within nursing. The specialty initially emerged in response to scientific, professional and social developments in the 1950s, which saw the beginning of radical changes to the way cancer was managed, and the way professionals and the public viewed the disease[1]. Miaskowski[1] identifies four factors that influenced the development of cancer nursing, alongside the development of cancer medicine, as a specialty:

- national and international recognition of cancer as a major chronic health problem (eg national and international cancer control policies and initiatives emerged)
- scientific and technological developments (eg the discovery of chemotherapy and other newer modalities of treatment)
- changes in professional and public perceptions of cancer (eg increasing knowledge base about the disease and improved survival rates resulted in more positive perceptions of the outcomes for people with cancer)
- changes in the nursing profession (eg development of education and research base and the increasing professional organisation of nurses).

These changes created a range of new roles and responsibilities for nurses caring for people with cancer, and over the past few decades these roles have continued to evolve in response to the changing social and health care environment. Cancer nurses today are integral members of the cancer care team, and cancer nursing has become established as a major specialty within nursing. Cancer nurses in Australia and overseas have published standards to define and guide their practice[2,3], and specialist postgraduate courses and research programs within cancer nursing have emerged in many universities and health care facilities in Australia.

However, like other health professions practising in the today's health care system, cancer nurses today are facing many challenges associated with cost containment, rapid developments in science and technology, and the changing relationships between consumers and health professionals. In addition, the nursing profession is currently experiencing unique problems associated with recruitment and retention of specialist nurses, with oncology nursing having recently been listed by the Department of Workplace Relations and Small Business as an area of skills shortage in New South Wales, the ACT, Queensland and the Northern Territory[4].

The series of articles presented in this edition of Cancer Forum aims to explore some of the contributions made by nurses to cancer control efforts in Australia. Specifically, the articles in this edition provide an overview of contemporary issues in the provision of education and support for people with cancer and their families. The developing evidence base underpinning nursing practice is also highlighted in a paper which uses the example of intervention strategies for treatment induced mucositis. At the broader policy level, the development of guidelines for handling cytotoxic drugs and related waste is discussed to illustrate how nurses have effectively collaborated with a range of key stakeholders to enhance safe practice for health care workers and patients. Issues faced by cancer nurses and people with cancer in rural Australia, and new roles and directions for cancer nurses are also considered in the final papers in this series. To provide some context for the articles included in this edition, a number of key issues and challenges facing contemporary cancer nursing will be discussed in this first paper.

Defining the contribution of cancer nursing

In 1996, the COSA Nurses Group published its second edition of Outcome Standards for Australian Cancer Nursing Practice[2]. The document, along with other similar documents published in the USA[3], highlights the diverse and complex nature of cancer nursing practice. In particular, the Outcome Standards identify that:

- cancer nursing is concerned with service to the individual patient, their families and the community
- cancer nursing occurs along a continuum of care, from prevention through to end of life care and bereavement support
- cancer care is delivered to patients and their families in a variety of settings.

More specifically, a recent qualitative study exploring the key dimensions of practice for nurses working in chemotherapy settings in Australia identified that chemotherapy nursing practice revolves around interrelated processes associated with information giving and education, emotional support, advocacy, and a range of direct caregiving interventions. These interventions require specialised knowledge and skills in managing technology, assessing responses to disease and treatments, preventing and responding to symptoms and treatment side effects, and meeting the patient's personal care needs[5].

A growing number of reports from randomised and case control studies are documenting the benefits of nursing intervention in terms of improved patient outcomes and consumer satisfaction with care. For example, a recent study of 1300 patients reported in the Journal of the American

Medical Association identified that patient outcomes for nurse practitioner and physician delivery of primary care do not differ[6]. In the context of specialist cancer care, researchers from the UK have similarly reported evidence which suggests that advanced nurse practitioners are effective in managing patients' responses during the course of radiotherapy[7], although these studies are yet to be published in the peer reviewed literature.

In the Australian context, the recently published NHMRC NBCC Psychosocial Guidelines reports Level II evidence that specialist breast nurse intervention can reduce women's psychological morbidity, increase their understanding of breast cancer, improve their recall of information and perceptions of support, enhance early recognition of their support needs, and provide continuity of care throughout the treatment process[8]. Furthermore, the NBCC Specialist Breast Care Nurse project has identified that, compared with a retrospective control and the National Consumer Survey, women seeing a specialist breast care nurse received more information about aspects of breast cancer and treatment, were more likely to be told about clinical trials and overall to participate in these trials, and were more likely to report having had or considered having reconstructive surgery[9].

While few studies to date have examined the economic benefits of specialist cancer nursing services, it is reasonable to assume that effective education, support and coordination of care, the core elements of good nursing practice, can contribute to a reduction in health expenditure by decreasing lengths of stay and preventing the unnecessary use of health services.

Recent developments in cancer nursing practice

There are a number of recent developments within cancer nursing that are of particular note in considering nursing's role in cancer care. Firstly, the redefinition of professional boundaries, and the changing scope of practice for nurses and of other health professionals have major implications for cancer care. Practices which where once viewed as the sole responsibility of a medical practitioner (for example, talking with patients about disease and prognosis), are now more often recognised as being concerns for the entire team. In some cases, this changing scope of practice for nursing is being institutionalised in new roles, such as the nurse practitioner.

The necessary legislative and policy change has already occurred in some states to facilitate these developments. Indeed, for a range of political and economic reasons, issues associated with the scope and models of nursing practice are clearly on the agenda for most state governments at the present time. Even the Federal Government, which has typically viewed the nursing workforce as being a concern for the states, has recently convened a national forum to consider nursing workforce issues. As a result of the forum held in September 1999, the Australian Health Workforce Advisory Committee was established in late 2000, along similar lines to that of the Australian Medical Workforce Advisory Committee (AHMAC). This attention currently being given to nursing workforce issues provides some unique opportunities for nurses to establish key collaborative relationships with other health professionals to improve patient outcomes, and provide increased consumer choice and satisfaction[10].

Secondly, the evidence base underpinning nursing intervention is developing. Nurse researchers are making important contributions to knowledge of cancer control through both qualitative and quantitative studies. The focus of nursing research is broad, and has tended to address issues relating to human experiences associated with cancer, factors that may influence this experience, and nursing interventions to prevent and manage problems associated with cancer and its treatment.

Nursing research is also making unique contributions to investigation of issues and problems which have received only limited attention to date (such as the management of difficult symptoms including breathlessness and fatigue, and family support), and nurse researchers have developed and evaluated innovative integrated models for managing cancer related problems[7]. At least two meta analyses of nursing research studies have been published which have concluded that various teaching and symptom management interventions implemented by nurses do produce more effective patient outcomes[11,12].

In Australia, cancer nursing research is in its infancy, and the extent to which research findings are yet to impact on the practice of nurses in this country is not clear. Nonetheless, developments in nursing research over the past decade are promising for future cancer control efforts in this country.

Nurses today are also educated in a radically different system to that of the past. The transition of nursing education to the higher education sector is now well established, with registration as a nurse in Australia requiring completion of a three year undergraduate degree. Specialist postgraduate certificate and diploma courses in cancer nursing have also been established in the higher education sector in most states of Australia. These Graduate Certificate and Graduate Diploma level programs typically articulate with Masters level degrees, which provide nurses with the opportunity to undertake further study in advanced practice issues or research. These programs thus provide a pathway for nurses wishing to specialise in cancer nursing, and develop advanced knowledge and skills in this field. An increasing number of these courses are available through flexible modes of delivery, effectively overcoming many of the social and geographical barriers to undertaking further studies.

However, while educational opportunities are becoming more widely available, the increasing cost of higher education to the individual is becoming prohibitive for some nurses. Unlike those who pursue postgraduate studies in other disciplines, there is not necessarily any private benefit for nurses in terms of investment in education, even though the public benefit is likely to be significant[13]. Moreover, the benefits of these radical changes to nursing education continue to be the subject of debate in some arenas, as concerns are raised about the higher education sector's ability to respond to the rapidly changing clinical environment and prepare graduates with advanced clinical skills. Models of postgraduate education in nursing will therefore continue to evolve, and much closer linkages between industry and the higher education sector are rapidly becoming the norm.

Recent years have also seen an increasing awareness of the important role that nursing plays in the provision of cancer services for underserved populations. For example, Registered Nurses are now being trained as Pap smear providers. These nurses receive extensive training and are accredited based on national standards to ensure the quality of the practice[14]. These services have proven to be especially valuable in rural and remote areas. With the growing awareness of the unique needs of these special populations, the role for cancer nurses is likely to become even more important in the future.

Challenges facing cancer nursing

The developments which have occurred within nursing over the past few decades provide much reason to be optimistic about the contribution that has already made by nursing services to cancer control in Australia. However, issues relating to increasing nursing workloads, and the location of nursing within the health system, have recently become major areas of concern for the profession.

There is good evidence that nursing workloads have increased substantially in recent years. The most recent Nursing Labour Force report from the Australian Institute of Health and Welfare indicates that while the number of full time equivalent (FTE) nurses employed in public acute and psychiatric hospitals declined by 2.8% between 1995-96 and 1998-99, the number of patient separations has increased by 7.4%. In private acute hospitals, the number of FTE nurses employed during this time increased by 11%, however, the number of patient separations increased by 16%[4].

Cancer nurses practising in outpatient and day treatment facilities can attest to the implications that these changes have had for the throughput of patients in these settings, and for the type of education and support required by patients and their families. It is not surprising then that a recent qualitative study of nurses working in chemotherapy settings in Australia identified that many cancer nurses had concerns about their ability to provide quality cancer care in the present health care environment. Resource issues were identified by participating nurses as being a major cause of frustration and distress, as they recounted numerous examples where lack of resources had prevented them from providing the care they believed patients required[5].

Related to these workload issues is the growing concern amongst some members of the nursing profession that one of the major factors contributing to current workforce problems in nursing is that a large proportion of the profession feels undervalued, is excluded from decision making, and is therefore unwilling or unable to work in the present environment.

The report of proceedings from the National Nursing Workforce Forum convened by the Commonwealth Government in September 1999 concluded that many nurses perceived there is a gap between what nurses can do, and the public and government understanding or acceptance of that potential. Participants at the forum argued that this is evidenced in the relatively minor role nurses have in decision making about health policy and service provision, and the relatively low level of funding for nursing research[15]. These circumstances have led various nursing leaders to ask whether it is that "educated, articulate and questioning nurses are no longer willing to work in a system that does little to validate them, to recognise their new status or acknowledge their central place in health care"[16], and to question "why governments still cling to the outdated view of nurses as a pair of hands, rather than as a resource for shaping the health care to be delivered"[17].

Indeed, nurses have historically had difficulty identifying and placing a value on their contribution to care of patients[18], and clearly articulating their vision for cancer nursing services of the future. While medicine can demonstrate its contribution to cancer treatment with statistical results, the outcomes of nursing interventions are not always as easily measured in terms of its effect on outcome nor publicly displayed in graphical format[19]. The contribution that good nursing care makes to patient outcomes often remains unnoticed and is less than explicit[20]. As a result, individual judgements about nursing's contribution to health care tend to be made arbitrarily[20], making specialist nursing services, and the benefit that they bring for patients, more vulnerable in times of cost reduction.

Enhancing nursing's contribution to quality cancer care in the future

For quality cancer care to be delivered, a number of issues relating to nursing services need to be addressed. The Commonwealth Government's recent announcement of the establishment of the Australian Health Workforce Advisory Committee (AHWAC) provides an important opportunity to achieve a nationally coordinated approach to addressing the multiple factors adversely impacting on the nursing workforce. AHWAC met for the first time late in 2000, and established that its initial workforce planning focus will be on the nursing subspecialities of critical care, emergency nursing, aged care, mental health and midwifery. It will be important to monitor the progress of this committee, and ensure cancer nursing issues are also considered in the appropriate forums. This will require nurses to further develop health policy knowledge and skills, if they are to influence the outcomes of government and local institutional policy in a positive way.

It is also important that cancer nurses strengthen their collaborative relationships with colleagues in other disciplines. This is especially critical at the present time where the practice of all health professionals is changing, so that the focus remains on the needs of the person with cancer, rather than any one professional group. There is increasing recognition that the barriers between different health professional groups whether these be between nurses and other health professionals, or between registered nurses and other levels of nurses, can impede patient care[16]. The benefits of team approaches in cancer care are obvious if the complex multifaceted problems experienced by patients and their families are to be addressed more effectively.

Strategies for advancing research in cancer nursing are also required, since the development of evidence based nursing practice that is grounded in a sensitive understanding of human responses to cancer is an essential component of quality cancer care. More research training opportunities, and strategies for addressing the limited funding presently available for nursing research will be important for the future of cancer nursing in this country. This does not mean funding poor quality research, but rather a strategic consideration of the most effective way to utilise scarce research funds and training resources in order to achieve good outcomes across the range of areas that are necessary for a comprehensive approach to cancer control.

In conclusion, it is also important to acknowledge that more meaningful collaboration with the consumers of nursing services must be a central component of future cancer care. Nurses often pride themselves on their close relationships and their ability to "know" patients, emphasising the unique opportunities provided by the 24 hour intensive nature of nurse-patient interactions.

Nurses are, however, sometimes criticised for being inflexible in their views about what they believe is "right" for their patients, and reluctant to consider changes to the way nursing care is delivered. In doing so, it is possible that nurses may at times unknowingly overlook the experiences and wishes of their patients. Nurses will need to continue to critically reflect on their practice, and be willing to ask themselves whose interests are being served by the various actions of our profession. Cancer nurses active involvement in activities that improve communication with consumers and that fosters more collaborative relationships is essential for ensuring nurses continue to improve their ability to meet the needs of the person with cancer.

References

1 C Miaskowski. “The future of oncology nursing. A historical perspective.” Nursing Clinics of North America, 25, 2 (1990), 461–473.

2 Clinical Oncological Society of Australia. Outcome standards for Australian Cancer Nursing Practice (2nd ed.). COSA, Sydney, 1996.

3 Oncology Nursing Society. Statement on the scope and standards of Oncology Nursing Practice. American Nurses Publishing, Washington DC, 1996.

4 Australian Institute of Health and Welfare. Nursing labour force 1999: preliminary report. AIWH, Canberra, 2000.

5 P Yates, M Hargraves, G Prest, J Cairns, K Harris, D Baker and A Thomson, “Factors impacting on contemporary chemotherapy nursing practice.” The Australian Journal of Cancer Nursing, 3 (2000), 2-11

6 M O Mundinger, R L Kane, E R Lenz, A M Totten, W-Y Tsai, P D Cleary, W T Friedewald, A L Siu and M L Shelanski. “Primary care outcomes in patients treated by nurse practitioners or physicians: A randomized trial.” Journal of the American Medical Association, 283 (2000), 59-68.

7 J Corner. “Cancer nursing: A leading force for health care.” Journal of Advanced Nursing, 29, 2 (1999), 275-276.

8 NHMRC National Breast Cancer Centre Psychosocial Working Group. Psychosocial clinical practice guidelines: Providing information, support and counselling for women with breast cancer. Commonwealth of Australia, Canberra, 2000.

9 National Breast Cancer Centre. Specialist breast nurses: An evidence-based model for Australian practice. NBCC, Sydney, 2000.

10 Victorian Nurse Practitioner Taskforce. Victorian nurse practitioner project: Final report of the taskforce. Department of Human Services (Vic), Melbourne, 2000.

11 B Heater, A Becker & K Olsen. “Nursing intervention and patient outcomes: A meta-analysis of studies.” Nursing Research, 37 (1988), 303-307.

12 M Smith and E Stullenbarger “An integrative review and meta-analysis of oncology nursing research: 1981-1990.” Cancer Nursing, 18, 3 (1995), 167-179.

13 B Smith and M Frankland. “Marketisation and the new quality agenda: Postgraduate coursework at the crossroads.” Australian University Review, 43, 2 (2000), 7-16.

14 S Hall. “Nurses: Pap smear providers.” Queensland Nursing Forum, 8, 2 (2000), 26-27.

15 National Nursing Workforce Forum. Rethinking nursing. Commonwealth Department of Health and Aged Care, Canberra, 2000.

16 “System fails educated and questioning nurses: Lumby.” Nursing Review, December 3.

17 M Clinton. “Time for another education review.” Nursing Review, December 12 (2000).

18 R McCorkle, M Grant, M Frank-Stromborg and S B Baird. “Cancer nursing as a speciality.” In R McCorkle, M Grant, M Frank-Stromborg and S B Baird (eds) Cancer nursing: a comprehensive textbook (chapt. 1). W B Saunders, Philadelphia, 1996.

19 C R Krcmar. “Cancer nursing as a speciality.” In: R McCorkle, M Grant, M Frank-Stromborg and S B Baird (Eds.) Cancer nursing practice: a textbook for the specialist nurse (chapt. 1). Churchill Livingstone, Philadelphia, 2000.

20 K Caellie. “Aspects of caring in Australian nursing.” Collegian, 8, 1 (2001), 26-32.

PATIENT EDUCATION STRATEGIES IN AMBULATORY CARE SETTINGS

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Cancer treatments can be extremely frightening and intimidating. Patients receiving treatment therefore require adequate knowledge and skills to help them deal both with the treatments and the side effects of these treatments. The ambulatory care setting is now routinely used for people undergoing treatment for cancer. As such, nurses working in ambulatory care need to assist patients to gain the knowledge and skills necessary to enable self-care and self-management wherever possible[1]. Such self-care can be enhanced through the provision of easily understandable but comprehensive and creative patient and family education programs.

Numerous studies have demonstrated that patients who receive a structured program of information during the course of radiation therapy report significantly less disruption in usual activities during and following radiation[2], and that nurses can have a positive impact on patients by provision of information and support measures[3]. The purpose of this paper is to provide an overview of education strategies for patients receiving treatment for cancer in outpatient settings.

Educational needs for people undergoing cancer treatment

Ambulatory cancer care today encompasses many situations that years ago would have been considered unthinkable. Specific programs are now aimed at patients undergoing outpatient stem cell transplant, those managing central venous catheters and infusional chemotherapy at home, and those patients required to self-administer colony stimulating factors. Outpatient blood component therapy, infusional antibiotic therapy, and home IV services for drugs such as Aredia, also keep manageable patients out of hospital. Ensuring that patients have the knowledge to undertake these tasks confidently and, importantly, safely outside the hospital environment, is a major responsibility of oncology nurses in collaboration with medical staff. As well, the support and input of allied health staff such as dietitians, social workers, and other specialist nurses, can also strengthen the teaching process[4].

Similarly, radiation oncology nursing has evolved over the past couple of decades in Australia, due to reduced inpatient beds, more complex treatment protocols such as an increase in combination chemotherapy/ radiation protocols, and advances in brachytherapy. There is now a body of nursing knowledge in this specialty that is based on nursing, scientific, and psychosocial disciplines, which is necessary to effectively care for this patient population[5]. Radiation treatment is a highly technical form of medical treatment. While the side effects of radiation treatment are generally predictable as part of the course of treatment, each treatment course is extremely variable[6]. As such, educational interventions need to be individualised and flexible to accommodate individual needs and responses.

The literature on educational needs of patients undergoing cancer treatment is growing. Four main areas of informational needs of patients are commonly identified in this literature: disease concerns (eg diagnosis, treatment, tests), personal concerns (eg impact on disease and treatment on well-being and functioning), family concerns (impact on family), and social concerns (interaction with peers, leisure and social interests, relationships with health professionals)[7]. Other writers have noted that while patients with different diagnoses display specific educational requirements related to their disease, common concerns are identified relating to prognosis and disease progression, and treatment options[8]. Furthermore, the literature suggests that patients may have different concerns at different stages of their disease and treatment course[9], and that patients may have difficulty recalling information given at certain times, such as close to the diagnosis[10].

Approaches to patient and family education in ambulatory cancer settings

Several issues need to be taken into account in planning and implementing strategies to meet patients’ educational needs.

General principles of patient education

Before patient teaching can begin, several factors need to be considered. Firstly, it is necessary to assess patients’ physical and emotional well-being, their understanding of their diagnosis, and help them to understand the need for the planned course of treatment[11]. It must be recognised that some patients, especially in the early stage of the treatment course may not be ready or able to understand complex technical information, while other patients may desire in-depth information about all aspects of their care. Good patient assessment and communication skills, as well as a sound knowledge base of the patients’ disease and treatments are critical[7]. According to Harwood[12], one of the biggest challenges we faced in the past was having access to information. She argues that now we are at the other end of the extreme, where people have access and the challenge now revolves around sifting through reams of information to find that which is not only credible but also appropriate to the patient’s situation[12].

Secondly, it is important to evaluate the patient’s ability to understand what is being taught. Prior assessment of a patient’s educational needs and learning abilities allows nurses to choose suitable methods of teaching, and ensure that patients receive the type of information that is desired and relevant for that patient[13].

Thirdly, it is necessary to have some understanding of the patient’s family environment and support system[14].

Fourthly, ensuring patients have time to ask questions, and assisting them to communicate their information needs to health professionals is important. Patients sometimes have difficulty in communicating their needs in brief consultations with health professionals, and patient education needs to be directed to developing skills in these areas.

Finally, it is essential that appropriate documentation of patient education is maintained throughout the patient’s care, as this assists in monitoring the progress of the patient and the family. Patient education is a continual process, so mechanisms to assist ongoing evaluation of patients’ information needs are critical. As many individual nurses and other members of the health care team are likely to be involved in the education process for any one patient, effective team communication is essential for facilitating a coordinated approach to patient education.

In many settings, a primary nurse or specialist nurse consultant oversees the education program, in order to facilitate a comprehensive and coordinated approach. For example, the Roving Clinical Nurse Consultant – Oncology Services role at the Princess Alexandra Hospital exists to provide chemotherapy education after initial medical consultation, administer and supervise chemotherapy in non-oncology units, offer support programs, and provide counselling and follow-up care to patients during the transition from diagnosis to the completion of the treatment phase.

Topics covered in patient education

The oncology nurse will reinforce the information provided by the oncologist and instigate a primary intervention strategy regarding the treatment process and its side effects, self-care activities, and other issues such as compliance with medication, comfort and nutrition, and physical care[11]. In the chemotherapy and radiotherapy setting, individual and family education sessions may focus on treatment side effects and their management, self-help strategies and support programs and groups. Ambulatory oncology patients in the larger teaching hospitals are also often included in clinical trial protocols, where they will have the assistance of an experienced research/ clinical trials nurse who will provide extensive education, follow-up and support for patients on studies or trials.

Methods for patient education

In the context of cancer, nurses are often required to translate complex scientific information into meaningful explanations for patients and families. As such, nurses need to be innovative in their teaching methods. Modes of instruction may include hands-on demonstrations and written educational materials, to reinforce verbal information. A wide range of patient information booklets are available, with studies suggesting that such booklets may be most beneficial if they are written in plain English and presented to patients prior to treatment[15]. Many centres use visual and audio aids such as videos and audiotapes, which allow the patient to take information home and digest in a less threatening environment[16].

While face-to-face education sessions are a significant component of patient education, nurses in ambulatory settings are increasingly using a range of flexible modes for delivering information. For example, telephone triage can be utilised as a way of assessing potential or actual treatment-related problems or symptoms of patients in their own homes, and can be used to provide appropriate advice or instruction[17]. Similarly, the use of interactive computer information is becoming more common. In these systems, patients may even have access to their own records with explanation as a further innovative method of patient teaching[18].

Patients themselves may have access to a wide range of sources for self-education. The oncology nurse can facilitate patients' use of these sources to complement education provided by health professionals, by assisting them to become critical consumers of the enormous range of information available to the public. For example, patients can now access clinical trial information, detailed information about treatment regimens, and online support groups at will.

Clark[19] suggests it is important to encourage patients to communicate with health professionals about the information they may find on the Internet, and to consider how this information relates to the information provided in the treatment setting. In this way, an opportunity is provided to give patients feedback regarding information sources and assist them to interpret information that is relevant to their needs. Clark further suggests that the criteria for evaluating Internet websites is not that different from evaluating written materials. The key points to consider include who stands behind the information, is the information up to date, who sponsors the information, and how patient oriented a particular site may be.

Timing for patient education

One of the most difficult issues associated with patient education is identifying appropriate timing for teaching for each individual patient's circumstances. In general, most treatment settings have standardised or structured educational and information giving sessions early in the course of treatment. For example, a radiation education program may include a) the provision of written information at the planning appointment; b) the availability of a radiation treatment video which patients can borrow and take home; c) an initial nursing interview at the beginning of treatment to discuss issues relevant to the patient; d) ongoing weekly assessment of interventions; e) ongoing education related to the changing nature of the radiation side effects with cumulative dose; and f) telephone contact post-treatment to monitor progress. It is important to recognise, however, that ongoing assessment, repeated reinforcement, and positive feedback are the keys to imparting appropriate knowledge.

Group education and support programs

Education and support programs such as the Living With Cancer program, the STRETCH program for women who have had breast cancer, Look Good…Feel Better, and others are available for patients through the various state and territory cancer organisations. These programs are an important source of education and information for patients and their significant others, where learning is encouraged in a supportive and friendly environment. They are often used as an important supplement to the individualised patient education strategies described above, and nurses are a key source of referral to these types of programs.

Conclusion

Nurses and health professionals must, as described by Strauss[20], "teach the inexperienced", providing medical and nursing knowledge to non-medical personnel who are often in various degrees of distress, anger and denial. Although cancer treatment knowledge does not guarantee the performance of self-care activities, certainly participation will not occur without treatment knowledge[21].

Oncology nurses are significant providers of patient education in all areas of oncology practice. Whatever the patient and family education strategies employed by nurses in the ambulatory care setting, the needs of the patient/family, and their readiness to learning and receptiveness to information offered must be considered. The provision of a variety of creative and appropriate teaching tools will assist in the successful education of patients, to promote self-care, and improve outcomes from cancer treatment.

References

1 F M Lewis and E H Zahlis. "The nurse as coach: a conceptual framework for clinical practice." Oncology Nursing Forum, 24, 10 (1997), 1695-1702.

2 J E Johnson, L M Nail, D R Lauver, K B King and H Keys. "Reducing the negative impact of radiation therapy on functional status." Cancer, 16, 1 (1988), 46-51.

3 F N Weintraub and G A Hagopian. "The effect of nursing consultation on anxiety, side effects, and self-care of patients receiving radiation therapy." Oncology Nursing Forum, 17 (1990), 31-38.

4 C Moore, D Strong, J Childress, B Fougere and S Gotthardt. "Ambulatory infusional cancer chemotherapy: nursing role in patient management." Journal of Infusional Chemotherapy, 6, 4 (1996), 164-70.

5 P J Anastasia and M C Blevins. "Outpatient chemotherapy: telephone triage for symptom management." Oncology Nursing Forum, 24, 1 (1997), 13-22.

6 L D Kelly. "Nursing assessment and patient management." Seminars in Oncology Nursing, 15, 4 (1999) 282-291.

7 A Derdiarian. "Information needs of recently diagnosed cancer patients: A theoretical framework." Cancer Nursing, 10, 2 (1987), 107-115.

8 E Ream. "Information and education for patients and families." In N Kearnery, A Richardson, and P DiGiulio. Cancer Nursing Practice: A Textbook for the Specialist Nurse. Churchill Livingstone, London.

9 K Luker, K Beaver, S Leinsten and R Owens. "Information needs and sources of information for women with breast cancer: a follow up study." Journal of Advanced Nursing, 23 (1996), 487-495.

10 K Hughes. "Decision making by patients with breast cancer: The role of information in treatment selection." Oncology Nursing Forum, 20 (1993), 623-8.

11. N Shepard and J F Kelvin "The nursing role in radiation oncology." Seminars in Oncology Nursing, 15, 4 (1999), 237-249.

12 K Harwood "Patient Education is Essential in Providing Quality Cancer Care." ONS News, 14, 12 (1999), 1.

13 E M Lin and B J Rigby. "A structured self-reporting new patient assessment tool: guide to oncology nursing practice." Canadian Oncology Nursing Journal, 4, 2 (1994), 72-5.

14 M E Cooley, H Moriarty, M S Berger, D Selm-Orr, B Coyle and T Short. "Patient literacy and the readability of written cancer educational materials." Oncology Nursing Forum, 22, 9 (1995), 1345-51.

15 P Butow, E Brindle, D McConnell, R Boakes and M Tattersall. "Information booklets about cancer: factors influencing patient satisfaction and utilisation." Patient Education and Counselling, 33 (1998), 129-141.

16 G A Hagopian. "The effect of informational audiotapes on knowledge and self-care behaviours of patients undergoing radiation therapy." Oncology Nursing Forum, 23, 4 (1996), 697-700.

17 A I Lampert, L Schulmeister and K Bodnar. "Home Infusion Therapy." P C Bushel and C H Yarbro (eds) Oncology Nursing in the Ambulatory Setting: Issues and Models of Care. Jones and Bartlett, 1993.

18 J Pearson, R Jones, A Cawsey, S McGregor, A Barrett, H J Gilmour and J McEwen. "The accessibility of information systems for patients: use of touchscreen information systems by 345 patients with cancer in Scotland." Proc Amia Symp (1999), 594-598.

19 P Clark. "How can we coach patients to become critical consumers of information they find on the Internet." ONS News, 14, 12 (1999), 8.

20 A L Strauss. Mirrors and Masks: The Search for Identity. Free Press, Glencoe Illinois, 1959.

21 M J Dodd. "Self-care: ready or not!" Oncology Nursing Forum, 246 (1997), 981-990.

EDUCATION STRATEGIES: ADDRESSING FAMILY CAREGIVER INFORMATION NEEDS

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Abstract

Over the next 20 years, with earlier detection, improved treatments and survival rates, an increased number of individuals with cancer will require assistance at home. Given[1] states that social policy has reflected the assumption that it is a family's responsibility to care for the individual after initial diagnosis and treatment for cancer. Wright and Leahey[2] believe the effect of cancer is multidirectional, the impact of the illness status on the family and the family's impact on the illness status are reciprocal and highly interdependent. Therefore the family can no longer be viewed primarily as the principal source of support, but as the unit that faces the disease[3,4].

The first step in supporting caregivers in their role is to assess their needs. Studies show that carers often ignore their own needs or fail to report them and having unmet needs can result in decreased satisfaction and stress which in turn impedes family functioning. Care of the family, as well as the patient, is becoming an integral component of nursing care. Nurses are in an ideal position to provide this care as they often have frequent and prolonged contact with the patient and family.

Caregiver needs can be described according to six categories: informational, psychological, patient care, persona, spiritual and household. This paper focuses on the family caregivers' informational needs and suggests education strategies which may assist the health professional to address these needs.

> "Learning to live with cancer is no easy task. Learning to live with someone else's cancer may be even more difficult".[5]

The family has always been an integral member of the health care team. In the current health care system and contrary to common thought, informal supports such as the family provide more support to the chronically ill than formal organisations[6]. In Australia, as in other developing countries, there is a growing expectation that families will care for those with a chronic illness or disability[7]. While taking on this role can be seen as normative, or expected family function, it is imperative to understand the negative as well as the positive outcomes for family members providing this care.

Why focus on family caregivers?

As a result of the shift in focus from the acute hospital setting to the ambulatory and community setting more and more care is being provided on an outpatient basis and at home and this care is constantly growing in complexity. The key to this working is the family caregiver. Another development that has affected family caregivers is the rapid advancement of modern technology and treatment methods resulting in more and more cancers being managed for extended periods[8,9].

Cancer is now considered a chronic illness and is less likely to be automatically equated with a death sentence[10,11]. Consequently cancer is a disease that patients and their families must learn to live with for long periods of time because an increasing number of patients are surviving with stable or slowly progressing cancer[10]. Health professionals must address the impact and consequences of technological advancements on family members taking on the caregiving at home.

Family caregiver needs

Caregiver needs have received much attention from researchers over recent years and researchers have employed various methods to ascertain and describe caregiver needs. However, lack of concise definition of what constitutes a need, both in research reports and amongst researchers, creates an obstacle when reviewing literature about caregiver needs. For the purposes of this paper, a need refers to a condition that is important to the caregiver and is not currently being satisfied by his/her environment[12].

Current literature also indicates that the family's cancer experience changes over time and is influenced by various stages of the illness trajectory as well as by personal, environmental and social variables related to their own situation (Hull, 1989). Each phase of the illness presents the family with new challenges related to information needs, ways of coping and adjustment to changes that occur[13].

Informational needs

Many studies report a high incidence of informational needs amongst family caregivers[14,15]. Hileman and colleagues[12] found caregivers had important unsatisfied informational needs related to treatment side effects, the future, symptoms and community resources. Other studies found needs related to being informed of the patient's condition, knowing the patient was comfortable, being provided with honest information, knowing the reasons for symptoms, and dealing with unpredictability were most common[16,17,18].

Researchers constantly report that caregivers seek large amounts of information and that many unsatisfied needs can be related to the caregiver's perception that information is difficult to obtain[3,16,19,20]. Difficulties may be the result of the family's limited contact with health professionals[21] or because the family has the responsibility to seek out information, which may be problematic especially if they lack confidence or are hesitant to ask for information already given to the patient[22,23]. Provision of information is well developed within health care making the absence of information an easy scapegoat when a gap in practice, such as unsatisfied needs of caregivers, is identified.

Weisman[24] and Bloch and Singh[25] suggest that information seeking is a common coping strategy used by individuals. Information helps lessen fear, removes a degree of unpredictability and permits a sense of control. According to Selder[26] initial information seeking also reduces uncertainty, a finding supported by Lewandowski and Jones[13]. Information is especially important to individuals taking on the caregiving role for the first time, or for those faced with constantly changing demands posed by various developments within an illness trajectory. Receiving information to deal with a new situation is preferred to learning new skills by trial and error[27].

Education strategies

Caregiver needs have been well documented and it is time for health professionals to take up a new challenge, to focus on meeting these needs. While this is an important challenge for all health professionals it is the nurse who is in a position to take up this challenge. Indeed many nurses already view the patient and the family as the unit of care. Strategies that may assist more nurses and others to meet this challenge relate to education of health care professionals and education of family caregivers.

Education of health care professionals

Health professionals should be provided with an opportunity to develop an understanding of the cancer experience from the family caregiver perspective. Therefore health professionals require education about the caregiving role, much in the same way as caregivers require information to carry out their role, and include skills, behaviours, knowledge, and attitudes. Skills required to work with caregivers include communication, assessment and teaching skills. They need knowledge about what it is like to be a caregiver and about the caregivers themselves including what is important to them, what they appraise as being stressful, their coping strategies, and available supports.

Assessment of family caregiver needs

Comprehensive assessment of family caregiver needs is highly recommended. Early assessment of families who may not cope effectively allows for the provision of additional support and can help avoid tension between health care professionals and families[28]. Consideration must be given to:

1) the characteristics of the patient's disease and treatment;
2) age, gender, activity level and relationship of the patient and the caregiver;
3) competing demands faced by the caregiver;
4) caregiver needs for information and skill acquisition;
5) the caregiver's psychological health; and
6) available supports and effectiveness of previous coping mechanisms. This in turn will inform the development and implementation of appropriate interventions.

Education of family caregivers

There are many ways to approach the education of family caregivers ranging from practical demonstrations and the provision of information in a group setting to provision of written, audio and video resources. It is beyond the scope of this paper to provide detail of each method therefore the focus will be on examples of written resources and websites known by the author.

A written resource for family caregivers, "When cancer won't go away: For carers of people whose cancer has advanced", is available from the Anti-Cancer Council of Victoria and begins to address issues such as:

- First reactions including: uncertainty, making treatment decisions, hope and living each day
- Dealing with changes including: changing roles, providing physical care, depression, body image and intimacy and helping children understand
- Common symptoms such as nausea, breathlessness, tiredness and pain
- Complementary therapies and unproven remedies and
- Death and dying which covers funeral planning, what happens when a person is dying, and the time after death and anniversaries.

A companion booklet, addressing similar issues, has been written for the person with advanced cancer.

A similar booklet, "Taking Time: Support for People with Cancer and the People Who Care About Them", is an American publication from the National Institute of Health. This booklet is written for both the patient and the carer and covers issues such as:

- sharing the diagnosis;
- coping within the family;
- sharing feelings; and
- the world outside.

It is a very helpful resource however some of the language is a little foreign to the Australian reader. Similarly, the book Caring for the Patient with Cancer at Home – A Guide for Patients and Families, produced by the American Cancer Society, is very helpful and practical. It concentrates on managing symptoms such as constipation, dry skin, shortness of breath, hair loss and swallowing problems.

The Internet and World Wide Web have opened many doors for health professionals, patients and carers alike. A great deal of information is easily accessible however it must be approached with caution as there is minimal regulation over what is posted on the web. Consequently if patients or families are wanting to access information in this way it is wise to provide them with reputable websites, suggest they share information that appeals to them with a health provider or if possible be present when they access the World Wide Web.

Useful websites include:

- Carer Support: www.span.com.au/carers/support.html
- The Cancer Resource Centre:
  www.cancer-resource.org.uk/
  While this Centre is based in the United Kingdom, there is helpful information on its website.
- National Family Caregivers Association: www.nfacares.org
  This is an American site.

The Carers Association also has a plethora of information for caregivers of people with a range of diseases, not just cancer. They also have a Carers Advice Line: 1800 242 636. Their website address is www.carers.asn.au.

Conclusion

There is no doubt family caregivers are a vital member of the health care team. Caregivers are constantly faced with competing demands and fluctuating needs. Health professionals must take up the challenge of meeting these needs by considering family caregivers as valued individuals who are an inherent part of the unit of care. To achieve this both health professionals and caregivers need appropriate education so they can work together to care for a person with cancer.

References

1 B A Given. "Psychological and social costs of women caregivers." Oncology Nurse Bulletin, (Sept, 1993), 9-11.

2 L M Wright and M Leahey. Nurses and families: a guide to family assessment and intervention. F A Davis Company, Philadelphia, 1989.

3 D Welch. "Planning nursing interventions for family members of adult cancer patients." Cancer Nursing, 4 (1981), 365-70.

4 L J Kristjanson and T Ashcroft. "The family's cancer journey: a literature review." Cancer Nursing, 17, 1 (1994), 1-17.

5 B A Hilton. Issues, problems, and challenges for families coping with breast cancer. 1993.

6 M H Cantor. "Strain among caregivers: a study of experience in the United States." The Gerontologist, 23, 6 (1983), 597-604.

7 J Schofield, S Bloch, H Herrman, B Murphy, J Nankervis and B Singh, (eds). Family caregivers: disability, illness and ageing. Allen & Unwin (in association with Vic Health), St Leonards, Australia, 1998.

8 A M Laizner, L M S Yost, F J Barg, and R McCorkle. "Needs of family caregivers of persons with cancer: a review." Seminars in Oncology Nursing, 9, 2 (1993), 114-120.

9 I M Lubkin. Chronic illness: impact and intervention (2nd ed.). Jones and Bartlett, Boston, 1990.

10 P F Jassack. "Families: an essential element in the care of the patient with cancer." Oncology Nursing Forum, 19, 6 (1992), 871-876.

11 J W Hileman. Home caregiver needs survey. University of Missouri, Kansas City, 1990.

12 J W Hileman, N R Lackey, R S Hassanein. "Identifying the needs of home caregivers: a descriptive study." Oncology Nursing Forum, 17, 6 (1992), 907-913.

13 W Lewandowski and S L Jones. "The family with cancer. Nursing interventions throughout the course of living with cancer." Cancer Nursing, 11, 6 (1988), 313-321.

14 J J Blank, L Clark, A J Longman and J R Atwood. "Perceived home care needs of cancer patients and their caregivers." Cancer Nursing, 12, 2 (1989) 78-84.

15 P DeAngelo. "Elderly family caregivers: an exploratory study of their needs." Caring, 7, 3 (1988), 19-22.

16 K Wright and S Dyke. "Expressed concerns of adult cancer patients' family members." Cancer Nursing, 7, 5 (1984), 371-4.

17 C A Tringali. "The needs of family members of cancer patients." Oncology Nursing Forum, 14, 4 (1986), 65-70.

18 D J Milne. When cancer won't go away: The needs and experiences of family caregivers. Unpublished Masters thesis, 1999.

19 LJ Kristjanson. "Indicators of quality of care from a families perspective." Journal of Palliative Care, 1 (1986), 8-17.

20 L J Kristjanson. "Quality of terminal care: salient indicators identified by families." Journal of Palliative Care, 5 (1989), 21-30.

21 P G Northouse and L L Northouse. "Communication and carer: issues confronting patients, health professionals and family members." Journal of Psychosocial Oncology, 5 (1987), 17-46.

22 S Bond. "Communicating with families of cancer patients: 1. The relatives and doctors." Nursing Times, 78 (1982), 962-5.

23 M J Krant and L Johnson. "Family members' perception of communication in late stage cancer." International Journal of Psychiatric Medicine, 8 (1977), 203-16.

24 A Weisman. Coping with cancer. McGraw-Hill, New York, 1979.

25 `S Bloch and B S Singh. Understanding troubled minds. A guide to mental illness and its treatment. Melbourne University Press, Carlton South, 1997.

26 F Selder. "Life transition theory: the resolution of uncertainty." Nursing and Health Care, 10, 8 (1989), 437-451.

27 M E Grobe, D M Ilstrup and D L Ahmann. "Skills needed by family members to maintain the care of an advanced cancer patient." Cancer Nursing, (Oct 1981), 371-375.

28 L J Kristjanson. "Families of palliative care patients: a model for care." In S Aranda and M O'Conner (eds). Palliative Care Nursing: A guide to practice. Ausmed Publications, Melbourne, 1999.

THE CONTRIBUTION OF THE CANCER SUPPORT NURSE TO THE CANCER CARE TEAM

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Introduction

There is increasing recognition by health professionals of the supportive and complex needs of individuals with cancer. Nursing's contribution in addressing these needs in particular has been acknowledged as critical. A number of studies of the Breast Care Nurse (BCN) in particular have provided level one and level two evidence that the BCN can contribute to improved patient outcomes[1,2].

The recent Psychosocial Clinical Practice Guidelines recommend the presence of the specialist BCN as they reduce psychological morbidity and improve wellbeing[3]. The purpose of this paper is to describe the model of the Cancer Support Nurse (CSN) role implemented at the Austin and Repatriation Medical Centre (A&RMC). This model was established to address support needs of newly diagnosed patients with any cancer type.

Background to the Cancer Support Nurse role

The CSN position was established at the A&RMC in March 1998. The aim of the position is to provide expert resources, support and development opportunities to staff involved in the care of patients with cancer, and in consultation with the multi-disciplinary team, to provide additional and specific support to newly diagnosed patients with cancer, their families and carers. The role aims to deliver an integrated approach to the care of patients with cancer, across all specialties throughout the A&RMC.

The notion of a CSN was first discussed approximately four years ago at the A&RMC. Nurses in the surgical areas identified the special needs of newly diagnosed patients with cancer, and those of their family and friends. The nurses also identified their inability to address these needs, either because they did not have sufficient cancer nursing knowledge or because they felt they did not have time within their everyday practice.

Experienced cancer nurses from the oncology wards of the Medical Centre were called upon, as a resource to nursing staff, patients and families. The subsequent appointment of the CSN has meant nursing staff are supported where there was an identified lack of oncology nursing knowledge, and patients and families have access to an experienced oncology trained nurse who brings counselling, teaching and assessment skills to their care.

Scope of practice of the CSN

The key dimensions of the CSN role include:

Facilitating communication

Discussions with nursing staff often reveal a degree of anxiety and apprehension and sometimes lack of clarity regarding the care of their patient. The CSN is able to addresses this as soon as practicable to facilitate optimum communication among members of the team, and to patients and families. The CSN role has an invisible feel at times, as the CSN is aware of information communicated to all members of the team involved in the patient's care, including the patient. The CSN intervenes when information may not have been shared between all parties involved.

Coordination and referral

It is often necessary for other supportive disciplines to intervene and the CSN facilitates timely referrals to these professionals. Referrals can be made to areas such as social work, clinical psychology, nutrition, physiotherapy, occupational therapy, chaplaincy and community health organisations.

Identifying the information and support needs

The specialist CSN role provides the information and social support that has long been identified as important in the adjustment to the cancer diagnosis and the patient's search for meaning[4,5]. The CSN role is not specific to one cancer type, like the role of Breast Care Nurses, but encompasses all cancer types. Cancer is age dependent with 59% of cases occurring in persons over 65 years, and more men than women develop cancer[6]. More CSN roles established to identify and address the specific supportive needs of individuals and their family and friends, with any cancer type at any age, would be beneficial.

Providing emotional support

The role is multidimensional and the CSN provides expert resources, support and development opportunities to medical and nursing staff involved in the care of patients with cancer and also provides support to newly diagnosed patients with cancer, their families and carers.

Elderly post-surgical patients with cancer need informational support during the transition from hospital to home[7]. The CSN role provides this information and support. The position creates and sustains a valuable link for patients and families at the time of the cancer diagnosis, and facilitates the timely provision of information and supportive resources.

One important aspect of the specialist CSN role is that it has the potential to provide significant tacit support to nursing and medical colleagues in the surgical areas. This support facilitates an individual, patient-focused approach to the surgical needs of the patient, and the psychological, emotional needs of the patient and family. Medical and nursing staff have the opportunity to discuss many aspects of the care needs of individuals newly diagnosed with cancer and the patients', and their own, personal reactions to the cancer diagnosis.

It seems prudent to have a position that has the potential to reach all newly diagnosed individuals with any cancer type at any age. The literature has already identified that women with breast cancer are frequently provided with more information and support than individuals with other cancer types[8]. It is also recognised that younger female patients are more likely to be better informed and supported than the elderly[8]. The CSN provides a resource to areas where there are few established processes in place to address the supportive care needs of individuals.

Breaking bad news

Giving the news of a cancer diagnosis, is an unenviable task for which doctors often feel poorly prepared[9]. Individuals experience stress in many areas as a result of a new cancer diagnosis and ensuing treatment[10].

Ideally the CSN should be present when a patient and family member are informed of a cancer diagnosis, regardless of whether the cancer diagnosis was expected or not. Hearing precisely what is discussed is important when clarifying patient comments and questions at a later time. It allows for the assessment of personal reactions to the cancer diagnosis and enables timely support to be provided to the patient and family. Support to the medical colleague who is giving the bad news, particularly if it is an inexperienced junior medical officer, is also provided. The presence of the CSN allows the identification of the immediate areas of need – patient or family – and planning for future needs can commence.

The volume and depth of information that is provided to patients by medical staff regarding diagnosis and sometimes prognosis, is acknowledged. Appropriately timed visits by the CSN to patients and their family are based on the content of this information and their reactions.

Educating

The provision of up to date and accurate information is an important aspect of the CSN role. Patient education is approached from many perspectives as the literature suggests, and is acknowledged as an effective coping strategy for some individuals with cancer[10,11]. Many issues arise where the provision of information is valuable in assisting the individual or family member. The information promotes an understanding of events throughout the cancer experience, and is supportive in mobilising coping strategies. Becoming familiar with information and emotions reinforces confidence and enables the development of appropriate coping strategies throughout the cancer experience[12].

Education provided takes into account disease, age and cultural specific needs of individuals and families. For some, general structured programs like the Living with Cancer Education Program are helpful. This program, as with the I Can Cope program, is proven to be effective and beneficial to people with cancer and their friends and family[13,14].

Education includes the provision of written materials, such as patient information booklets and other printed matter made available through resources such as the Cancer Information Service. Information can also be visual or audio.

Responding to information needs during transition to home is important in helping patients and families to appropriately manage illness[7]. Common teaching topics include those specific to the cancer site, pain management, diet, exercise and activity in the post operative period, self care, and follow up care details. Information on community resources is also provided.

Structured teaching sessions are undertaken to inform nurses in the surgical areas of the care needs of patients with a new cancer diagnosis, and also on relevant cancer types.

Conclusion

The CSN provides a vital link within the cancer care team in many ways. The role enables provision expert resources, support and development opportunities to staff involved in the care of patients with cancer. Specific needs of newly diagnosed patients with cancer, their families and carers are identified and addressed.

The CSN contributes to the knowledge of the nursing team through formal education and provides support for less experienced team members, regarding coping with reactions to a new cancer diagnosis.

The CSN provides support to medical colleagues in the confronting role they face often without a clearly identifiable supportive framework.

References

1 JMC McArdle, WD George, CS McArdle, DC Smith, AR Moodie, AVM Hughson, GD Murray. "Psychological support for patients undergoing breast cancer surgery: a randomised study." British Medical Journal, 312 (1996), 813-816.

2 M Watson, S Denton, Baum et al, "Counselling breast cancer patients: A specialist nurse service". Counselling Psychology Quarterly 1,1 (1988), 25-34.

3 National Health and Medical Research Council. Psychosocial Clinical Practice Guidelines. AGPS, Canberra, 1999.

4 M Maxwell. "The use of social networks to help cancer patients maximise support." Cancer Nursing, 5 (1982), 275-81.

5 P Jenkin. "Cancer Patient's use of the Internet to access health information and support . A sociological perspective." The Australian Journal of Cancer Nursing. 2 (1999), 2-5.

6 G Giles, K Whitfield, V Thursfield (eds). Canstat, Cancer in Victoria 1998. Anti-Cancer Council of Victoria. Carlton, 2000.

7 L Hughes, N Hodgson, P Muller, L Robinson, R McCorkle. "Information needs of elderly post surgical cancer patients during the transition from hospital to home." Journal of Nursing Scholarship. 32, 1 (2000), 25-30.

8 S McNamara. "Information and support: a descriptive study of the needs of patients with cancer before their first experience of radiotherapy." European Journal of Oncology Nursing. 3, 1 (1999), 31-7.

9 L Woodard, R Pamies, "The disclosure of the cancer diagnosis of cancer." Primary Care, 19 (1992), 657-63.

10 J Anderson. "The nurse's role in cancer rehabilitation." Cancer Nursing. 12, 2 (1989), 85-94.

11 B Van der Molen. "Relating information needs to the cancer experience. Two themes from six cancer narratives". European Journal of Cancer Care. 9, 1 (2000), 48-54.

12 G Grahn, M Danielson. "Patient education. Coping with the cancer experience. Evaluating an education and support program for cancer patients and their significant others." European Journal of Cancer Care, 5, 3 (1996) 182-7.

13 C Black, K Todd, P Schofield. Evaluation of the Living with Cancer Education Program: 1996-1998. Anti-Cancer Council of Victoria, Carlton, 1999.

14 J Johnson. "The effects of a patient education course on persons with a chronic illness." Cancer Nursing, 5 (1982), 117-23.

PREVENTION AND EARLY DETECTION OF ORAL MUCOSITIS IN A CANCER SETTING

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Abstract

Oral mucositis is a common and distressing complication for patients receiving treatment for cancer. Severe mucositis resulting in the delay or cessation of cancer treatments may jeopardise the intent for cure or control. An abundance of different interventions used to prevent and manage oral mucositis appear in the healthcare literature, with little scientific evidence of their effectiveness.

This paper reports on an evidence-based study at Peter MacCallum Cancer Institute (PMCI) to develop best practice guidelines aimed at prevention of oral mucositis in a cancer population. A literature review found that the systematic performance of good oral hygiene has been shown to be more effective in reducing oral mucositis than the use of any particular oral care regimen. Integral to successful oral mucositis prevention are mechanisms to improve patient compliance with oral care, including consistent nursing assessments and frequent reinforcement of oral care instruction. Education of nurses must focus on developing skills and confidence in undertaking oral assessments, educating patients about good oral hygiene and monitoring patient outcomes.

This paper describes the process taken by the Evidence Based Nursing Practice Group (EBNPG) at PMCI in the development of consensus guidelines for the prevention and early detection of complications of oral mucositis in the cancer patient. This process involved multidisciplinary participation in the evaluation of a literature review, the acquisition of a government grant to fund the project, the development of nurse and patient education programs, and the construction of oral mucositis prevention guidelines.

Introduction

Clinical decision making in nursing is frequently based on experience, opinion, past practice and precedent resulting in the introduction of ineffective and sometimes harmful interventions and a reluctance to discontinue interventions found to be lacking[1].

The EBNPG was developed at PMCI and consisted of four nurses, a dental oncologist and, in the later stages of the project, a pharmacist. The goals of this group were to develop guidelines for decision-making and to enhance clinical patient care by encouraging nurses to critically examine their practice through an evidence-based approach.

The group selected the research subject of oral mucositis, as it was considered a significant complication of cancer treatments and there was anecdotal evidence that prevention and management interventions were inconsistent. Findings of previous research have been somewhat equivocal, in part because issues of prevention and treatment of oral mucositis have not always been addressed separately. For example many of the aims of interventions have frequently confused prevention with that of treating symptoms of oral mucositis. Therefore the focus of this project was restricted to prevention as a starting point in the overall management of oral mucositis.

Literature review

Definition

Mucositis is an inflammatory response of mucosal epithelial cells to the cytotoxic effects of chemotherapy as well as localised radiation therapy[2]. Epithelial cells lining the gastrointestinal tract mucosa renew rapidly, approximately every seven days. Mucositis results when mucosal cells are damaged and are unable to adequately repair and replace normal cell loss[2]. The primary function of the oral mucosa is to provide a first line of defence against infection and the oral cavity is a primary source in the development of septicaemia in immunosuppressed patients[3].

Incidence and effects

Patients most affected by oral mucositis are those receiving radiotherapy to the head and neck, those with haematological malignancies and those having complex high doses of chemotherapy with blood cell transplantation[2,4]. The indirect effects of chemotherapy on the oral mucosa includes the suppression of bone marrow cells resulting in neutropenia and thrombocytopaenia, which promotes and exacerbates infection and bleeding. Changes in oral status correlate with the timing of myelosuppression as neutrophils and oral musosa have similar cell renewal rates[2,5]. Oral mucositis is often most severe at the nadir of the neutrophil count with resolution of mucositis as the count recovers[2,5].

For many cancer patients the causes and exacerbation of mucositis are multifactorial. For example, multi-modality treatments for cancer are frequently given in the context of patients with a history of tobacco and/or alcohol abuse, or pre-existing poor oral hygiene[6]. Other factors known to increase risk include type of cancer and treatment, age, pre-existing oral disease, level of oral care and dental habits, nutritional status and numerous drugs that alter or dry the oral mucosa.

Oral mucositis is a major contributor to morbidity in the cancer patient, of which symptoms include mild discomfort, taste alterations, xerostomia, severe ulceration, pain, bleeding and infection[5]. These factors impede the patient's capacity to eat, communicate and to adequately attend oral hygiene. Topical agents and systemic analgesia are often required for pain and intravenous hydration and parenteral or gastric feeding are often necessary to maintain nutrition. In particular, xerostomia plays a significant role in the incidence of oral mucositis where absence of saliva encourages heavy plaque to accumulate on the surfaces of teeth, resulting in an increase in bacterial volume in the mouth, leading to tooth decay, fungal infections and periodontal disease[2,7].

Prevention and management of oral mucositis

The effectiveness of numerous oral care agents and regimens currently in use has not been established by reliable (Type I or II) research. In fact, much of the literature indicates that there is little consistency or agreement amongst practitioners in regard to assessment, prevention and treatment[5,7-11]. For example a common nursing practice, not supported by evidence, is to discourage tooth brushing during treatment which evidence does suggest increases the risk of plaque, caries and oral infection.

A number of researchers have shown that the systematic performance of good oral hygiene has been shown to be more effective in reducing oral mucositis than the use of a particular oral care regimen[11-15].

In addition, the maintenance of oral cleanliness in the form of tooth and gum brushing and flossing is considered the most reliable means of controlling bacterial plaque, which has a direct causative link to the development of caries, gingivitis and periodontal disease[16]. These findings are of particular relevance as studies have shown that patients who have had dental evaluation, preventative care and treatment of pre-existing dental disease prior to chemotherapy and radiotherapy experience a reduced incidence of oral mucositis[7,11]. Studies comparing mouth wash interventions have also co-incidentally found that when nurses performed consistent oral assessments and frequently reinforced oral care instructions, patient compliance with oral care improved[9,11,13].

The literature suggests that preventing or reducing the incidence and/or severity of oral mucositis not only has positive outcomes for patients by decreasing complications and length of hospital stay but additionally reduces staff time and costs associated with care[5].

Recommendations and guidelines

A review and evaluation of the literature has resulted in the formulation of consensus guidelines: Prevention and Early Detection of Oral Complications of Mucositis PMCI Consensus Guidelines©*. These guidelines have been formulated with multidisciplinary representation including dental oncologists, radiation and medical oncologists, a general practitioner, pharmacist, dietitian, and academic and clinical nurses from within and outside PMCI.

An Oral Health Promotion Grant from the Department of Human Services Victoria was acquired to partially fund the costs involved in the project. As a result of progress to date the development and implementation of consensus guidelines and a program of education for all staff and patients has now become possible.

The guidelines for selected patients receiving chemotherapy and radiotherapy include:

- the performance of an oral assessment on admission
- referral to a dentist for pre-treatment examination, and care and management of pre-existing tooth and gum disease
- education of patients by nurses regarding principles of good oral hygiene, signs and symptoms of oral mucositis and self-care mouth assessment
- distribution of a patient education brochure with guidelines for oral hygiene and assessment of mouth problems
- the restriction of prophylactic mouthwashes and other agents
- early detection and management of oral complications made possible by regular oral assessment by nurses.

* Available from the CNSA in June 2001.

Conclusion

Questions surrounding the best practice in the prevention and treatment of oral mucositis are left unanswered due to poor quality and insufficient research. Even so there are considerable incidental findings from the literature in regard to factors, which facilitate prevention to warrant further evaluation. These findings have formed the basis on which the EBNPG have developed the enclosed guidelines.

Maintaining good oral hygiene is a first principle in the prevention of oral mucositis for patients undergoing chemotherapy and radiotherapy. The role of dental examination and treatment of pre-existing oral disease is significant in reducing the risk of complications associated with oral mucositis. Oncology nurses caring for patients undergoing treatment for cancer require education about the effects of treatment on the oral mucosa, the effectiveness of regular mouth care and how to perform an oral assessment. Patient education about self-care measures for oral care including demonstration and reinforcement of oral care instruction by nursing staff is advocated. As the regular observation and assessment of the oral status of patients undergoing cancer treatments is recorded and communicated by nurses, early and appropriate intervention for the management of degrees of severity of oral mucositis can be instituted[3,17].

The outcomes of an improved oral health program such as that introduced at PMCI are to standardise care and assessment interventions. In addition the project aims to improve patient outcomes relating to incidence and severity of oral mucositis and to enhance quality of life and self-care ability by acquiring new knowledge and skills. For nurses the benefits are a continued growth of knowledge, clinical expertise and a commitment to improving the care given to their patients with cancer. In addition the implementation and evaluation of these guidelines for the prevention and early detection of oral mucositis at PMCI will create the best environment to generate future research on the management of oral mucositis in the future.

References

1 J A Muir Gray. Evidence based healthcare: how to make health policy and management decisions. Churchill Livingstone, New York, 1997.

2 M Goodman, L Hilderley and S Pur. "Integumentory and mucous membrane alteration". In: S Groenwald, M Goodman, M Hansen-Frogge and C Yarbro (Eds). Cancer Nursing: Principles & Practice (4th ed.) Jones and Bartlett, Boston, 1997.

3 J Eilers, A Berger and M Petersen. "Development, testing and application of the oral assessment guide". Oncology Nursing Forum, 15, 3 (1988), 325-330.

4 S Dibble, G Shiba, L MacPhail and M Dodd. "MacDibbs mouth assessment: A new tool to evaluate mucositis in the radiation therapy patient". Cancer Practice, 4, 3 (1996), 135-140.

5 K Graham, D Pecoraro, M Ventura and C Meyer. "Reducing the incidence of stomatitis using a quality assessment and improvement approach". Cancer Nursing, 16, 2 (1993), 117-122.

6 S Beck. "Mucositis". In: C H Yarbro, N H Frogge and S Goodman (Eds.). Cancer Symptom Management (2nd ed.) Jones & Bartlett, Boston, 1999.

7 R Iwamoto. "Alterations in oral status". In: R McCorkle., M Grant, M Frank-Stromberg and S Baird. Cancer Nursing: A Comprehensive Textbook (2nd ed.). Saunders, Philadelphia, 1996.

8 S Coleman. "An overview of the oral complications of adult patients with malignant haematological conditions who have undergone radiotherapy or chemotherapy". Journal of Advanced Nursing, 22 (1995), 1085-1091.

9 P J Larson, C Miaskowski, L MacPhail, M J Dodd, D Greenspan, S L Dibble, S M Paul and R Ignoffo. "The pro-self mouth aware program: An effective approach for reducing chemotherapy-induced mucositis". Cancer Nursing, 21, 4 (1998), 263-368.

10 The Joanna Briggs Institute for Evidence Based Nursing and Midwifery. Systematic review of the effectiveness of strategies for preventing and treating chemotherapy and radiation induced oral mucositis in patients with cancer. Margaret Graham Building, Royal Adelaide Hospital SA, 1998.

11 S Kenny. "Effect of two oral care protocols on the incidence of stomatitis in haematology patients". Cancer Nursing, 13, 6 (1990), 345-353.

12 R Daeffler. "Oral hygiene measures for patients with cancer".Cancer Nursing, 3 (1980), 347-356.

13 L Dudjak. Mouth care for mucositis due to radiation therapy. Cancer Nursing, 10, 3 (1987), 131-140.

14 M Dodd, P Larson, S Dibble, C Miaskowski, D Greenspan, L MacPhail, W Hauck, S Paul, R Ignoffo and G Shiba. "Randomised clinical trial of chlorhexidine versus placebo for prevention of oral mucositis in patients receiving chemotherapy". Oncology Nursing Forum, 23, 6 (1996), 921-927.

15 B Borowski, E Benhamou, J L Pico, A Laplanche, J P Margainaud and M Hayat. "Prevention of oral mucositis in patients treated with high-dose chemotherapy and bone marrow transplantation: a randomised controlled trial comparing two protocols of dental care". Oral Oncology, European Journal of Cancer, 30, 2 (1994), 93-97.

16 H Loe, "Oral hygiene in the prevention of caries and periodontal disease". International Dental Journal, 50, 3 (2000), 129-139.

17 Western Consortium for Cancer Nursing Research. "Development of a staging system for chemotherapy-induced stomatitis". Cancer Nursing, 14, 1 (1991), 6-12.

DEVELOPING AND IMPLEMENTING GUIDELINES FOR THE SAFE HANDLING OF CYTOTOXIC DRUGS AND RELATED WASTE: THE QUEENSLAND EXPERIENCE

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Introduction

A greater understanding of the nature of cancer and the role of cytotoxic drugs in treating malignant and non-malignant disease has led to an increase use of chemotherapy in a variety of clinical and non-clinical settings. Traditionally, patients have been managed in large tertiary treatment facilities in the major cities. However, the increasing use of cytotoxic chemotherapy, improvements in side effect management combined with demands for cost containment, advances in technology and a greater emphasis on consumer needs has contributed to increasing numbers of smaller centres providing chemotherapy services in cities as well as in rural and remote areas.

Chemotherapeutic agents have been demonstrated to be mutagenic, teratogenic and carcinogenic. Concern about the potential adverse effects of occupational exposure to cytotoxic drugs and their waste, grows from the recognition that cell damage produced as a therapeutic effect may appear in those exposed to the drugs and their waste within the work environment. Therefore, long term low level exposure to these agents during preparation, administration and disposal may constitute an occupational hazard.

While the literature suggests that there was evidence for the concern of healthcare workers involved in the handling of cytotoxic drugs and related waste in the 1970s, guidelines were not published before 1980. Letters and the results of a number of studies alerting workers to the risks of exposure appeared in a number of journals in the late 70s[1,2,3]. However, the data from these studies reflect practices before guidelines were published, when safe handling practices were poor and provision of personal protective clothing was inadequate.

Background

The Society of Hospital Pharmacists of Australia published guidelines for the safe handling of cytotoxic drugs in 1980. These guidelines addressed issues relating to preparation and administration of cytotoxic drugs and were the first published guidelines worldwide. Revised guidelines in 1990 included personnel safety monitoring, waste, spills, storage and the transport of the agents[4]. The Royal Australian Nursing Federation followed the pharmacists' lead and released their policy on safe handling of cytotoxic drugs in 1984.

In Australia, each state and territory has its own Workplace Health and Safety authority. Therefore Codes of Practice and Guidelines for managing cytotoxic exposure have been independently developed by some state authorities. The South Australian Health Commission produced a Code of Practice for Safe Handling and Disposal of Cytotoxic Drugs in 1988 which was replaced in 1993 by Guidelines for the Safe Handling of Cytotoxic Drugs and Related Wastes in Health Units and Services[5]. NSW WorkCover Authority distributed safe handling guidelines, for use in New South Wales in 1992[6].

In 1994, the Nursing Consultative Committee (NCC) which represents nursing concerns to the Queensland State Government's Minister for Health invited the Queensland Oncology Nurses Group (QONG) to identify issues that were of concern to their membership. QONG utilised this opportunity to raise concern about the increasing use of cytotoxic drugs in a variety of healthcare settings throughout Queensland with the NCC as well as the Queensland Nursing Council, Queensland Nurses' Union, Environmental Branch of Queensland Health and the Division of Workplace Health & Safety.

In December 1995 QONG met with representatives from the Division of Workplace Health & Safety. This forum was an opportunity to inform the Division of the increasing use of cytotoxic drugs in the workplace and to raise concern regarding the limited legislation that specifically covered cytotoxic drugs and related waste. From this meeting it was determined that the best direction for the QONG would be to consult directly with the Community Services Industry Workplace Health & Safety Committee to develop guidelines to minimise occupational exposure to cytotoxic drugs and related waste. In 1996 the Queensland Oncology Nurses Group and the Queensland Nurses' Union approached the Community Services Industry Workplace Health & Safety Committee and a Working Party was established.

Guideline development

The initial Working Party included representatives from the public and private health sector, domiciliary nursing agencies, Division of Workplace Health & Safety, Department of Health, Queensland Nurses' Union, the Queensland Cancer Fund and the Private Hospitals Association of Queensland. This committee met on a regular basis to develop guidelines and the training competencies for the safe handling of cytotoxic drugs and related waste in Queensland. The guidelines were adapted from the Guidelines for handling cytotoxic drugs and related waste in health care establishments prepared by the NSW WorkCover Authority. Committee members provided institutional policies and guidelines as part of this review process and consulted widely with industry colleagues in an effort to expand the relevance of the final document.

On 31 August 1997, the definition set out in the Workplace Health and Safety Hazardous Substances Compliance Standard 1995[7] changed. That is, from that date a substance was defined as being hazardous if it was listed in the List of Designated Substances[8] or if the substance met the Approved Criteria for Classifying Hazardous Substances[9]. Cytotoxic drugs meet NOHSC's Approved Criteria for Classifying Hazardous Substances because of the carcinogenic, mutagenic and teratogenic risk they pose to health care workers, and were therefore hazardous substances. The Workplace Health and Safety Regulation 1997 – Part 13 Hazardous Substances[10], which came into force in February 1998, has replaced the Compliance Standard and cytotoxic drugs are now covered under the requirements of this legislation.

The launch of the guidelines was to coincide with the changes to the definition of hazardous substances, however it was postponed to allow for broader consultation with other interested stakeholders. The committee believed that extensive consultation would ensure the final document reflected the current environment in Queensland. To this end the Working Party approached scientists, veterinarians, and representatives from Communicable Diseases Unit, along with the Department of Companion Animal Medicine & Surgery, Department of Transport, Rural Doctors Association, Infection Control & Sexual Health, Environmental Protection Agency, Department of Environmental Health Services, and other aligned departments within the State Government. Broader consultation resulted in a document that had relevance for healthcare as well laboratory settings and veterinary practices.

Dissemination and implementation of the guidelines

In recognition of the significant contribution of the QONG, the final document, Guide for Handling Cytotoxic (Antineoplastic) Drugs and Related Waste[11], was launched at the Annual Oncology Nurses Group Conference in November 1997[11] by the Executive Director of the Workplace Health & Safety Program. The guide provides practical information for both employers and employees pertaining to the safe handling requirements of cytotoxic drugs and related waste in the workplace. The document is pertinent not only for nurses but also for other healthcare workers in hospital, community, laboratory, veterinary and/or home settings.

While the document does not contain specific procedures for the preparation, administration, management and disposal of related waste, training modules were developed to assist institutions to develop appropriate in-house policies and procedures. It was not the scope of the document to provide practical safe handling information for patients receiving cytotoxic drugs or their families. This remains an area of uncertainty for patients as well as for healthcare workers and requires further attention.

The guidelines were published in 1997 and disseminated through the Department of Health to all public and private hospitals and domiciliary services throughout Queensland. The document is also accessible from the Department of Training and Industrial Relations Website: www.detir.qld.gov.au/hs/guide/gde17.pdf. Review of the guidelines was to occur in 1999 however this has been postponed.

Evidence suggests that if appropriate measures are employed the potential risks associated with occupational exposure to cytotoxic drugs and related waste will be minimised (Oncology Nursing Society, 1989). However, research has shown that in spite of guidelines and recommendations from professional groups and institutions, healthcare workers do not always practice what they know is safe practice[12,13,14]. Gullo[12] reports that less than 40% of nurses practice safe handling measures when handling cytotoxic drugs and their waste products.

A number of facilities providing chemotherapy services report that institutional policies and procedures have been reviewed following the dissemination of the guide in 1997. However anecdotal evidence suggests that annual evaluation of competencies related to the safe handling of cytotoxic drugs is not occurring and that certain nonsensical practices remain unchanged.

Conclusion

The issue of cytotoxic exposure remains controversial however sufficient evidence confirms the need for health care workers to exercise vigilance when handling these drugs and their related waste. While the Guide for Handling Cytotoxic (Antineoplastic) Drugs and Related Waste is based on scientific evidence it has also taken into account what is unknown and what is suspected.

These guidelines are a minimum standard and are only as good as the implementation process that accompanies them. While monitoring compliance is difficult there is a requirement for greater compliance with the recommendations concerning safe handling practices and personal protective measures to minimise the risk of exposure to cytotoxic drugs and related waste. The increasing use of cytotoxic therapy and demand for chemotherapy services requires legislation in every state and territory to ensure that the recommended facilities for preparing these drugs are available, that adequate personal protective equipment is provided and that workers are provided with adequate educational preparation.

References

1 A L Donner. "Possible risk of working with antineoplastic drugs in horizontal laminar flow hoods". American Journal of Hospital Pharmacy, 335 (1978), 900.

2 K Flack, P Grohn, S Sorsa, H Vainio, E Heinonen and L R Holsti. "Mutagenicity in urine of nurses handling cytostatic drugs." Lancet, June (1979), 1250-1251.

3 D Hoffman. "The handling of antineoplastic drugs in a major cancer centre". Hospital Pharmacy, 15, 8 (1980), 302-304.

4 Society of Hospital Pharmacists of Australia. "SHPA policy guidelines for the safe handling of cytotoxic drugs in pharmacy departments". Australian Journal of Hospital Pharmacy, 15, 5 (1990), 391-394.

5 South Australian Health Commission. Guidelines for the safe handling of cytotoxic drugs and related waste in health units and services. The Environment Health Branch, Adelaide, 1993.

6 WorkCover Authority of New South Wales. Guidelines for the handling of cytotoxic drugs and related waste in healthcare establishments. New South Wales Government, 1992.

7 Queensland State Government. Workplace Health & Safety (Hazardous Substances) Compliance Standard 1995. Goprint, Queensland, 1995.

8 National Occupation Health & Safety Commission. List of Designated Substances 1005 1999. Australian Government Printing Service, Canberra, 1999.

9 National Occupation Health & Safety Commission. Approved Criteria for Classifying Hazardous Substances 1008 1999. Australian Government Printing Service, Canberra, 1999.

10 Queensland State Government. Workplace Health & Safety Regulations 1997. Goprint, Queensland, 1997.

11 Department of Training and Industrial Relations. Guide for handling cytotoxic (antineoplastic) drugs and related waste. 1997.

12. S M Gullo. "Safe Handling of Antineoplastic Drugs: Translating the Recommendations into Practice". Oncology Nursing Forum, 15, 5 (1988), 595-601.

13 A Stone. "Hazards of handling chemotherapy agents known but not heeded". Journal of the National Cancer Institute, 83, 6 (1991), 392-393.

14 Society of Hospital Pharmacists of Australia. SHPA standards of practice for the safe handling of cytotoxic drugs in pharmacy departments. 1997

A REVIEW OF THE EDUCATIONAL NEEDS OF NURSES ADMINISTERING CANCER CHEMOTHERAPY IN RURAL AND REMOTE AREAS OF QUEENSLAND

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Abstract

This paper describes current issues in chemotherapy nursing practice in rural and remote Australia. There is a trend to refer chemotherapy clients back to their rural and remote health facility for treatment from major oncology centres in Australia. However, it is increasingly apparent that the majority of nurses administering chemotherapy in smaller centres lack the theoretical and clinical knowledge to ensure optimum client outcomes and nurse/client safety. There are also issues unique to rural and remote life which will influence optimum chemotherapy service delivery.

The research program described in the paper will ascertain the education requirements of rural and remote nurses administering chemotherapy and the design and delivery of a chemotherapy education package specific to the rural and remote context. Similar programs will ensure the best standards of chemotherapy practice in non-metropolitan areas by enhancing the practical and theoretical knowledge base of rural and remote nurses.

Introduction

While it is difficult to obtain any concrete figures relating to chemotherapy administration in rural and remote Australia, anecdotal evidence and practical experience indicate that the number of external referrals for cancer chemotherapy to outlying rural and remote health services from larger metropolitan and provincial centres has increased significantly in recent years[1,2]. It appears from the AIHW[3] data that the majority of this is delivered by nursing staff in rural and remote areas. This trend is a response to the increasing cost burden of inpatient chemotherapy to metropolitan and provincial oncology centres. In order to defray this expense from the larger health service, there is currently an emphasis on chemotherapy administration in the outpatient setting in the client's home town. Advances in biotechnology have facilitated this transfer of chemotherapy to the outpatient setting, with many clients implanted with venous access devices that enhance administration of chemotherapy and continuous infusion devices that deliver pre-programmed schedules of antineoplastic agents[4].

Chemotherapy and cancer support from the perspective of the rural and remote client

Rural Australians are not one homogenous group and it is difficult, therefore, to plan specific chemotherapy services from outside a given rural or remote area. This is because communities differ greatly in terms of their economic base (farming, mining, tourism – which predispose to different forms of cancer) and their demographic composition[5,6]. Generally, however, rural and remote Australia is characterised by economic instability and poverty due to droughts and the loss of local industry[7]. Populations in rural areas are decreasing and are also ageing, due to the drift of younger people to metropolitan areas in search of work[8,9]. Those who stay behind are more likely to have received a lower level of education, have poorer communication skills than their urban counterparts and are less likely to be able to afford private health insurance[10]. All of these demographic factors adversely influence both the cancer-preventing and the cancer treatment-seeking behaviours of rural and remote people, resulting in a reluctance to access the health care system until their condition is well advanced and requiring more intensive chemotherapy services[11].

Psychosocial issues must also be considered when planning chemotherapy services in non-metropolitan areas. For example, population drifts in rural and remote areas are disrupting the traditional support structures in these communities. This creates a need for expanded community cancer services to support chemotherapy patients, such as domiciliary nursing, respite care, social workers, home help and meals on wheels, which increase the pressure on the shrinking health dollar. In the past these services would have all been provided by the close network of family and friends within the community[11].

There are also cultural traits typical of rural and remote people which complicate the planning of chemotherapy service delivery. One is the tendency of country people to define health in terms of their ability to work, regardless of their illness[12]. The response of urban people is more likely to be linked to the fear of pain or cosmetic disfigurement, whereas country people fear their loss of productivity[13]. They are, therefore, more likely to place an emphasis on the maintenance of their functional abilities and on their independence. This need to help themselves is accompanied by a resistance to help from 'outsiders'[12,14], which is occurring in a context of increasingly high turnover of health care professionals in non-metropolitan areas[15,16]. It is well known that rural and remote people find it difficult to expose private concerns related to their diagnosis of cancer to health professionals who are new to the area, or to professionals located in a distant referring centre[8].

Furthermore, rural and remote communities often comprise people of many different ethnic origins in addition to the Indigenous people concentrated in these areas. These groups require a different approach to culturally acceptable cancer services than people of English-speaking backgrounds[17].

An advantage of the trend to deliver chemotherapy closer to home is that it relieves some of the social and financial burdens rural people experience when undergoing specialist cancer treatments, such as transport and accommodation costs; isolation from social and family networks; and from those health professionals they do know and trust[11]. There are, however, disadvantages to this trend.

Issues related to the safe provision of cancer treatment

While no statistics are available for Australian rural health services, Schulmeister[18] indicates that some form of chemotherapy error occurs in 63% of specialist oncology units in the United States and that nurses are involved in 73% of these errors. Errors that can be attributed solely to the nurses administering the drugs are estimated to be between two and 10%. The consequences of such mistakes can be devastating – 10% of clients required extended and expensive hospitalisation in the Schulmeister study, with medical intervention required in a further 22% of cases that did not require hospitalisation. In the US in 1994, there were 11 reported cases of client death due to chemotherapy overdose[18]. Factors attributed to chemotherapy administration errors in metropolitan areas include stress, understaffing, lack of experience and fatigue. These factors are exacerbated in the rural context, having been identified as variables in Australian research as characteristic of nurses employed in rural health services[16,19].

Despite careful review of chemotherapy drugs and protocols before dispatch from the referring centre, the potential for error in the administration of these agents remains high. It is increasingly apparent that the majority of nurses administering chemotherapy in smaller rural and remote health facilities have little training or experience in this specialised area. A chemotherapy regime is only as safe as the nurses who are the final checkpoint in the administration process and it appears that mistakes will inevitably occur in these outlying areas.

Issues relating to access to education and training in rural and remote areas

Rural and remote area nurses in Australia are aware that they have a responsibility to ensure they have a sound understanding of all the drugs they administer and the principles of safe administration of cytotoxic drugs. They are also conscious of the necessity of familiarity with the Statute and common laws related to the cytotoxics they administer to clients[19,20]. Rural and remote area nurses report however, that larger health services are often unaware of the narrow range of services they can provide[19].

The reality is that rural and remote health services have limited staff numbers; limited budgets for specialised equipment such as Huber needles and cytotoxic waste disposal mechanisms; and restricted availability of training, which could accommodate the newer technologies they are expected to embrace[9]. For rural nurses, the unfortunate outcome of recent policy changes such as outpatient chemotherapy administration, is a greater knowledge requirement for nursing staff in the face of financial and resource cutbacks[11].

Many rural and remote area nurses express a desire to meet these challenges. Nurses seeking education on cytotoxic administration, however, articulate as barriers those very factors rural clients cite as reasons for welcoming chemotherapy in their home town. For example, while clients no longer have to travel long distances for treatment, these nurses experience difficulty in accessing the necessary education because of the financial burdens in travelling to, and staying in, larger centres, where the only clinical training in chemotherapy administration is offered. Like their clients, they also experience isolation from family and friends for extended periods if they leave their home town for training. Rural nurses face additional difficulties because they have limited access to conferences, peer networks, libraries and information technologies; in addition to inadequate staff ratios which do not accommodate backfilling of staff who do seek education outside the town[11,19,21].

Knowledge deficits identified amongst non-specialist nurses administering chemotherapy

There is evidence that these factors contribute to a significant knowledge deficit amongst the nursing professionals administering chemotherapy in rural areas. The specialist oncology nurses and pharmacist in one provincial health service routinely receive six calls a week from health professionals in outlying areas administering chemotherapy, spending up to one hour per call advising them on safe administration of anti-neoplastic drugs[1]. The calls are received from all over south-east Queensland and northern NSW, including Charleville, Cunnamulla, Tenterfield, Warwick and Roma. Knowledge deficits identified by oncology professionals at this referral centre, the widespread incidence of which is corroborated by reports in the international literature, include:

1 Clinical knowledge of cell cycles and their relation to chemotherapy; anti-neoplastic drug actions; standard chemotherapy doses and the rationale for dose variations; recognition and management of immediate and potential side effects; client education; and safe handling of cytotoxic drugs.

2 Technical skills such as the access and management of various venous access devices; venepuncture and cannulation[22,23,24].

Previous research demonstrates conclusively that well-designed chemotherapy education programs adapted to specific rural and remote contexts, which are delivered face to face, increase the safety and quality of care to rural clients[22,24]. The professional, social and financial costs for nurses of such programs are relieved if they are delivered in rural and remote areas rather than requiring the nurses to travel long distances to metropolitan or provincial centres. Local delivery also enhances learning outcomes as it is linked to the context of rural nursing practice.

Possible solutions

The specialist oncology nurses in South East Queensland recognise their collegial responsibility to ensure nurses administering cytotoxics to clients referred from major centres have the peer and educational support that ensures work place health and safety for clients and nurses in specific rural and remote contexts. They are also aware that client outcomes are significantly enhanced if nurses in outlying areas are competent to administer chemotherapy.

As a result, they have obtained funding for a two phase project. Phase 1 is a needs analysis of rural and remote area nurses in Queensland that will ascertain the education requirements of rural and remote area Registered Nurses with regard to the administration of chemotherapy. Phase 2 of the study will involve the design and delivery of an educational package that is context specific, relating to the administration of chemotherapy by rural and remote area nurses. The delivery platform will be determined by the needs analysis, but will include interactive multi-media platforms (for example CD-ROMs).

Conclusion

There are many positive outcomes to be achieved from this research. The most important is that a course designed specifically for the context of non-metropolitan health care delivery, which is consistent with the best practice standards of chemotherapy practice, will improve the chemotherapy treatment outcomes and safety of rural and remote residents, throughout Australia. Furthermore, enhancing the knowledge, competence and confidence of rural and remote area RNs administering cytotoxics will ensure the occupational health and safety of nurses delivering chemotherapy to rural and remote clients. It is also hoped that the project, through the delivery of the course, will develop a peer network of nurses educated about, and competent in, chemotherapy administration throughout Queensland that will be sustainable on completion of the project. This will ensure that nurses entering rural and remote contexts will be effectively mentored and educated in chemotherapy protocols.

References

1 P J Gilbar. "Cancer chemotherapy: potential errors exist with external referrals." The Australian Journal of Hospital Pharmacy, 29, 2 (1999), 79-85.

2 P J Gilbar "Preventing medication errors in cancer chemotherapy referred to rural and remote hospitals." Australian Journal of Rural Health (in press).

3 Australian Institute of Health and Welfare. Nursing Labour Workforce 1998. AIHW, Canberra, 1999.

4 G Smith and A Richardson. "Development of nursing documentation for use in the outpatient oncology setting." European Journal of Cancer Care, 5, 4 (1996), 225-232.

5 T Sorenson. The future of the country town: strategies for local economic development. In: T Sorenson and R Epps. (Eds). Prospects and Policies for Rural Australia. Longman Cheshire Pty Ltd, Sydney, 1993, 201-240.

6 J Strickland and D Strickland. "Barriers to preventative health services for minority households in the South." The Journal of Rural Health, 12, 5 (1996), 206-217.

7 J Humphreys and F Rolley. Neglected factors in planning rural health services. In: K Malko K (Ed). A Fair Go for Rural Health – Forward Together. University of New England, Armidale, 1993, 47-54.

8 A Bushy. "Rural nursing in the US: where do we stand as we enter the new millenium?" Australian Journal of Rural Health 6, 2 (1998), 65-71.

9 M McLeod, A J Browne and B Leipert. "Issues for nurses in rural and remote Canada." Australian Journal of Rural Health, 6, 2 (1998), 72-78.

10 J M Silviera and W Fry. "The needs of patients with cancer and their caregivers in rural areas." Oncology Nursing Forum, 24, 1 (1997), 71-76.

11 A McCarthy and D Hegney. Remote and rural palliative care. In: S Aranda and M O'Connor (Eds). Palliative Care Nursing: A Guide to Practice. Ausmed Publications, Melbourne, 1999, 83-102.

12 C Viens. "Developing expertise in the rural environment." Canadian Nurse, 93, 2 (1997), 39-42.

13 R Elliot-Schmidt and J Strong. "The concept of well-being in a rural setting: understanding health and illness." Australian Journal of Rural Health, 5, 2 (1997), 59-63.

14 M E Burnham and C Weinert. "Concerns of rural men and women experiencing cancer." Oncology Nursing Forum, 24, 9 (1997), 1593-1600.

15 NSW Health. Nursing Recruitment and Retention Taskforce: Final Report. NSW Health Department, North Sydney, 1996.

16 Queensland Health. Ministerial Taskforce into Nursing Recruitment and Retention. GoPrint, Brisbane, 1999.

17 L Knox. Stethoscopes, tobacco and pasta. Paper presented to the Nursing the Country Conference of the Association for Australian Rural Nurses Inc, Warrnambool, November, 1993.

18 L Schulmeister. "Chemotherapy medication errors: descriptions, severity and contributing factors." Oncology Nursing Forum, 26, 6 (1999), 1033-42.

19 D Hegney, A Pearson and A McCarthy. The Role and Function of the Rural Nurse in Australia. Royal College of Nursing Australia, Deakin ACT, 1997.

20 Joanna Briggs Institute for Evidence Based Nursing and Midwifery. Systematic Review of the Administration and Supply of Medication by Registered Nurses in Rural and Remote Areas. JBIEBNM Best Practice Guide, Adelaide University, 2001.

21 P Yates, M Hargreaves, G Prest, J Cairns, K Harris, D Baker and A Thomson. "Factors impacting on contemporary chemotherapy nursing practice." The Australian Journal of Cancer Nursing, 3 (2000), 2-11.

22 M M Grant, P R Anderson, D J Ritchey and S Gold. "Community based educational programs for cancer nursing." The Journal of Continuing Education in Nursing, 27, 6 (1996), 253-258.

23 S Steele and A K Carruth. "A comprehensive interdisciplinary chemotherapy teaching documentation flowsheet." Oncology Nursing Forum, 24, 5 (1997), 907-11.

24 M L Kanaskie and E Arnold. "New ways to evaluate chemotherapy competencies." Nursing Management, 30, 11 (1999), 41-3.

Clarifying nursing’s contribution to cancer care through reflection on values

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Introduction

This paper argues that lack of clarity by nurses on what is important about their practice leads to lack of dignity for patients and increasing feelings of moral distress by nurses. The central assumption of the paper is that values influence decision-making. When nurses make clinical decisions, these decisions are influenced by what the nurse considers to be important. The process of valuing is usually implicit and the effects of valuing may be invisible to the nurse. Cancer nurses may uncritically adopt the dominant biomedical view of health that exists in Australian cancer care to the detriment of patient well being. However, through critical reflection on clinical decisions, nurses can reveal to themselves what they value in clinical practice and develop the ethical arguments to support their decisions.

Values

Values underpin an individual’s perception of reality and derive from abstract ideals about ways of behaving or one’s goals in life. Values reflect an individual’s beliefs about the relative importance of universally accepted principles and are mechanisms used by the individual for choosing acceptable alternatives and for identifying the right actions in a situation[1]. Values are revealed in what we say and what we do – our choices reveal what is important to us as human beings.

Values development in nursing begins in pre-registration education. Students are indoctrinated into a ‘normative ethic’ for nursing. It is here that the objective knowledge and truth underpinning most curricula is value laden but invisible. Rarely are students invited to subject the ethic to rigorous philosophic analysis leading to a group of professionals unable to defend their values when they are called into question[2]. Nurses in general do not analyse their professional actions, but adopt a prescribed professional role, thereby fulfilling a prescriptive social stereotype[3]. The following syllogism illustrates:

“The situation is X. In situations like X, a good nurse does Y. I am a good nurse. Therefore I shall do Y” [4].

This stereotype works well within a biomedical, prescriptive philosophy where practice decisions are based on the best available scientific evidence. However, as Thorne[4] notes:

“When we see the cancer field as limited to biomedical science explanations, we reveal our ignorance about significant questions that are being raised in the public domain…. the prevalence of existential experiences and questions forces us to understand that cancer is an experience of living, breathing, questioning human beings, not simply a biologic malfunction”[5].

Nurses who apply Glen’s[3] syllogism in daily practice decisions find themselves struggling to justify their decisions from an ethical perspective[6]. The biomedical view of cancer care limits the human potential of the nurse-person relationship by dehumanising the person and creating moral distress for the nurse. The challenge for nurses in the cancer care setting is to recognise the potentially negative effects of the biomedical view and implement strategies that address the issues raised.

The dehumanising potential of cancer

The contemporary approaches to cancer treatment are informed by the dominant biomedical view of health. In this view, cancer, as a disease, is something apart from the person that ‘attacks’ the person[7]. The human body is conceptualised as a machine in need of repair[8]. High health care costs (really disease costs) can be attributed to technology, or ‘magic bullets’, in the form of advanced surgical techniques, more potent drugs, and advanced radiation physics. These technological advancements are the ‘tools’ used by doctors to repair and restore the body and they share common qualities. They are expensive, are geared to treatment, aggressively attack disease, and produce many iatrogenic effects.

The dehumanising potential of cancer treatments is illustrated in the woman with breast cancer who may experience:

1. surgical procedures that change her appearance permanently,
2. chemotherapy that result in painful mouth ulcers that bleed and cause her lips to stick together, taking away the basic pleasures associated with the lips such as eating and kissing, and
3. radiation therapy that lead to burns of the skin that blister and weep for up to three weeks following completion of treatment.

The physical effects of treatment can be compounded by the attitude of health professionals. In providing a personal account, Sauri[9] suggests that appropriate behaviour, on the part of professionals, is of the utmost importance, emphasising that the professional’s words, attitudes and gestures are branded upon the vulnerable patient’s mind. This personal account is supported by research done by Kralik, Koch and Wotton who could group patients’ experiences of nursing care into two categories: engagement and detachment[10].

“Defensive attitudes create in professionals a kind of armour-plating that prevents them relating to the patient’s emotions [detached]. This translates into a relationship that is distant, cold, aseptic and, most definitely dehumanised”[9].

In the biomedical view of health, the role of the nurse is limited to the technical skills associated with administering the treatment and prevention or management of any iatrogenic effects. In this climate, nurses are challenged to develop evidence, preferably using randomised controlled trials and based on probabilities, to support their clinical decision making.

“While nurses clearly need to be guided by the most up to date knowledge, especially in hospital settings, to allow clinical tasks to be performed with skill and consistency, the nurse-patient process is not data-based. Rather, [nursing] is a human-based engagement that must be guided by human values and theoretical principles of relevance to human engagement”[11].

Barker’s[11] view is supported by Curtin who states that the goals of nursing are not scientific; they are moral and are based on the seeking of good[12]. Therefore, nursing actions are subject to judgement, influenced by values, as well as scientific evidence.

Values and nurses

There is mounting evidence that the values learned by nurses are not consistent with the values of the health system. Kelly[13] found that senior baccalaureate nursing students in the United Kingdom valued ‘respect for the patient’ and ‘caring about little things’. Little things included getting out the mirror so patients can see themselves, fixing their water so they can reach it, and worrying about someone’s dentures or the cat they left at home. She found that this same group also valued ‘fitting in’ and ‘going along’. These students felt that their values would be in conflict with common hospital practice and saw themselves as powerless.

The finding of powerlessness, is a theme reinforced by another study completed in the USA[14]. Over 300 neonatal nurses were surveyed and it was found that those nurses working in large tertiary centres believed the nurse-patient relationship becomes secondary to physicians’ orders, institutional policies, and other external forces[14]. In a survey of Australian cancer nurses, it was found that 74% agreed that sometimes hospital policy or practice standards conflict with what the patient needs[15].

The result is a conflict between what the nurse should be doing, learned at nursing school, known as espoused values (sometimes reflected in a formal code of ethics or conduct), and what they are actually doing in the clinical area, values-in-use[3]. This conflict can result in moral distress, defined as when the nurse knows the right course of action but constraints make it impossible to pursue the right course of action[16]. Hamric[15] describes institutional constraints such as lack of time, lack of supervisory support, physician power, institutional policy, and legal limits.

Two main issues that lead to moral distress for nurses are (1) the clash between professional, corporate, and societal definitions of adequacy of care[16,17] and (2) nurses’ belief that they value patient autonomy more highly than physicians do[17]. Moral distress produces painful feelings, that can range from a feeling that something is wrong to anger and frustration. Over time, moral distress can escalate to feelings of depression, anguish, and moral outrage[15]. Moral distress in nurses is an important issue for consideration in cancer care as there is increasing evidence to suggest that moral distress is a powerful factor in nurses’ decisions about remaining in practice[18,19,20].

Implications for cancer nursing

Clinical nurses are challenged to consider and articulate how they view health and what is most important when they deliver nursing care. Reflecting on clinical experiences through journalling is one way to unravel the value assumptions that inform clinical decisions and choices. Asking oneself questions about an incident such as: What was important to me at the time? What may have been important to others in the situation? How do I know that the decision was right (theory)? Would my colleagues (nursing and medical) share this view? Why or why not?

Nurses must identify the theory used to make morally defensible clinical decisions and choices, recognise the contextual nature of value judgements, and develop the art of practical deliberation with colleagues to improve practice[3]. This process is more than knowing and understanding the nursing process or routinely implementing institutional policies derived from evidence. The evidence-based movement has an important place. However by focussing on evidence alone, legitimised through a biomedical view, the nurse risks creating a dehumanising experience for patients and missing the rare or unlikely responses that are rendered invisible in empirical research.

“Technological evidence is important but should not distract [nurses] from the need to explore the world of the person or family, through the nurse-person process. It is within such exploration that we shall find out what exactly is happening, to this person, at this particular time, and what meaning they construct out of the experience. That is not evidence – that is truth: the truth of individual experience, often ephemeral, but always true at the time of knowing. Such ‘personal truths’ are very different from the probabilistic assumptions of evidence, which risk blinding us to the rare or unlikely” [11].

The development of critical thought and critical spirit is essential for nurses to formulate logical, but tentative, personal views on contentious health issues. Clear formulation of one’s values helps guide day to day practice. Educational strategies include attending short courses on bioethical theory and requiring mentors for less experienced nurses. Understanding of bioethical theory would assist nurses to articulate the rationale behind clinical decisions and choices. Less experienced nurses, new to the cancer area, would benefit from being mentored by an experienced clinician who can facilitate the reflective process. Such strategies have the potential to increase critical thinking skills in nurses.

Research into the role of values in clinical decision making by cancer nurses is urgently required. Contemporary demands for evidence based decision-making leaves little scope for understanding the unique experiences of human beings. Nursing is a nurse-person process, with outcomes that are context dependent rather than empirically derived. If the biomedical view of health continues to dominate, there is serious risk to the human nature of the nurse-person relationship resulting in persons not choosing treatment due to perceived lack of dignity and more nurses leaving the profession due to moral distress.

References

1 D A Raines. “Values influencing neonatal nurses’ perceptions and choices.” West J Nsg Res 16, 6 (1994), 675-691.

2 B Stevens. Nursing theory: analysis, application and evaluation. Philadelphia, Lippincott (1994).

3 S Glen. “Developing critical thinking in higher education.” Nurse Ed Today. 15 (1995), 170-176.

4 T Cartwright, P Davson-Galle and RJ Holden. “Moral philosophy and nursing curricula: indoctrination of the new breed.” J Nsg Ed, 31, 5 (1992), 225-228.

5 S E Thorne. “Communication in cancer care: what science can and cannot teach us.” Cancer Nsg, 22, 5 (1999), 370-378.

6 L Grealish. “Beyond Hippocrates: ethics in palliative care.” Intl J Pall Nsg, 3, 3 (1997), 151-155.

7 J D Allan and B A Hall. “Challenging the focus on technology: a critique of the medical model in a changing health care system.” AdvNsgSci, 10, 3 (1988), 22-33.

8 J Bennett. “ ‘When you can’t fix it’: a changing view of cancer nursing: CANO 1992 Schering Lecture”. CONJ, January (1993), 14-18.

9 M Sauri. “Communication needs from the patient’s point of view.” Onc Nurses Today, 4, 4 (1999), 16-17.

10 D Kralik, T Koch and K Wotton. “Engagement and detachment: understanding patients’ experiences with nursing.” JAN, 26 (1997), 399-407.

11 P Barker. “Reflections on caring as a virtue ethic within an evidence-based culture.” Intl J Nsg St, 37 (2000), 329-336.

12 L Curtin. “The nurse as advocate: a philosophical foundation for nursing AdvNsgSci, 1, 3 (1979), 10-13.

13 B Kelly. “The professional values of English nursing undergraduates.” JAN, 16 (1991), 867-872.

14 D A Raines. “Values influencing nursing practice: responses from neonatal nurses.” JSPN, 2, 2 (1997), 55-62.

15 L Grealish. “Values in Cancer Nursing.” Plenary presentation. Building Bridges for the Future, 11th International Conference on Cancer Nursing, Oslo, 30 July to 3 August (2000).

16 A Hamric. “Moral distress in everyday ethics.” Nsg Outlook 48, 5 (2000), 199-201.

17 B K Redman and S T Fry. “Nurses’ ethical conflicts: what is really known about them?” Nsg Ethics, 7, 4 (2000), 360-366.

18 R Decker. “Socialisation and interpersonal environment in nurses’ affective reactions to work.” Soc Sci Med, 20 (1985), 499-509.

19 J A Erlen and B Frost. “Nurses’ perceptions of powerlessness in influencing ethical decisions.” West J Nsg Re, 13 (1991), 397-407.

20 M C Corley. “Moral distress of critical care nurses.” Am J Crit Care, 4 (1995), 280-5.

Introduction

TRENDS IN CANCER NURSING: THE HAEMATOLOGY NURSE PRACTITIONER EXPERIENCE

L Clark, S Eerhard, M Prince, J Gale and D Spencer

Advanced nursing practice roles – in particular the role of the nurse practitioner, are becoming recognised as valuable and necessary in the increasingly complex health care systems of countries such as the USA, Canada, the United Kingdom and most recently Australia[1,2,3,4]. Political and social change, economic factors, the escalating cost of health service delivery, advances in research and technology impacting on medical practices, professional developments in the disciplines of medicine and nursing, and increasing consumer expectations have combined to facilitate the development and acceptance of these roles as the traditional boundaries between the health professions are reviewed, rethought and modified[5,6,4,7]. Essentially, the evolution of the nurse practitioner role has been an attempt to improve interdisciplinary health service delivery. The initiative is a response to individual and community demand for: improved access to health services, and increased diversity and flexibility of models in health care[2].

In Australia, the introduction of the nurse practitioner role is at various stages. All States are in the process of either: establishing working parties, conducting feasibility studies, or implementing this new and rapidly evolving role[2,8,9]. The purpose of this paper is to provide an overview of one nurse practitioner pilot project conducted in the field of cancer nursing. The Peter MacCallum Cancer Institute (PMCI) participated in the Victorian State Government Nurse Practitioner Taskforce Models of Practice initiative, and aimed at further developing and extending an oncology nursing role, that of the Haematology Clinical Nurse Consultant.

Nurse Practitioner: A definition

The nurse practitioner is "at the apex of clinical nursing practice"[10]. Nurses in advanced practice must be highly educated, have post registration qualifications, and possess expertise in their specific area of practice which may include both individual and community health, in primary and acute care settings[11,12,13,4,2]. In addition to traditional nursing role responsibilities nurse practitioners may: take histories, conduct physical examinations, order, perform and interpret diagnostic imaging and pathology tests, prescribe pharmacological agents, treatments and non pharmacological therapies, approve absence from work certificates, refer to specialists, and admit and discharge patients[14,10,2].

As well as demonstrating high levels of clinical decision-making, nurse practitioners integrate education, consultation, administration, research, health policy development and clinical and professional leadership into their role. It is also essential that they function in collaborative and collegial relationships with other health professionals and in partnership with patients and communities[11,12,13,4,2].

In Victoria, the focus of the nurse practitioner role is on the complementary nature of advanced nursing practice, rather than medical substitution. The advanced knowledge, skills and competencies of the nurse practitioner are simply tools that ensure safe, effective and expert practice in an expanded conceptualisation of clinical nursing[10,2].

The Peter MacCallum Cancer Institute

Professor Miles Prince and Haematology Nurse Practitioner, Suzanne Eerhard.

Photo courtesy of Peter MacCallum Cancer Institute

Haematology Nurse Practitioner Project

The PMCI Haematology Team's long held belief that the patient is the central focus of health care practice informed our approach to the project. Several significant driving factors influenced its development:

- Advances in technology, and basic and clinical research leading to radical changes in the practise of haematology medicine.
- Improvements in, and an increased availability of supportive therapies.
- Migration of aggressive and complex treatments from the inpatient to the outpatient setting resulting in a need for coordination and continuity of care across the care continuum. Essential elements of care include: education, psychosocial support, ease of access to the Haematology Service, close monitoring and timely interventions.
- Recognition of the contribution advanced practice nurses make to patient care. This was coupled with the Institute's interest in developing clinical nursing roles; the Head of Haematology's recent experience working with advanced practice nurses in Canada; the potential to expand a pre-existing haematology clinical nurse consultant role;
  and the "professional readiness" of the incumbent in terms of academic preparation, clinical experience and the potential to master further advanced knowledge and skills.
- Considerable pre project consideration in the conceptualisation of a nurse practitioner role in haematology and the implications of its implementation in both the urban and rural sector[15].

Integral to the success and sustainability of an advanced nursing practice role was the procurement of an agreed need, and support for the role from key leadership positions in the organisation at executive, divisional, and departmental levels[15].

Policy issues

The PMCI Haematology Nurse Practitioner Project addressed several of the critical policy issues being explored by the Victorian Nurse Practitioner Taskforce (VNPT): scope of practice; education and credentialling; and best practice[12,15].

Scope of practice

Acknowledged as a core member of the Interdisciplinary Haematology Team, the HNP maintains a practice field that includes the total care continuum and involves the entire range of patients referred to the Haematology Unit. The HNP's primary practice setting spans across the Institute Outpatient facilities and encompasses the Inpatient Haematology Ward as required. Therefore the model provides integrated care, horizontally, within the inter-disciplinary team, and vertically, across the care continuum[15].

Continuity of service provision and the availability of a constant caregiver are essential components of the model, as haematological malignancies often follow chronic trajectory paths in which care is complex, crosses several health care settings and involves a number of care providers. A real potential for fragmentation of care exists[15].

The HNP's scope of practice encompasses conventional areas of nursing practice that are provided at an advanced level. Where the scope of practice enters the realm of medical substitution, practice boundaries may be distinguished in the areas of advanced health assessment, diagnostic and clinical management. Though still managing complex clinical situations that require highly sophisticated clinical judgment, nursing practice in the areas identified above, will be limited to focused physical assessments, standard and routine investigations, and the management of common and non-complicated haematological conditions and or clinical problems[15].

Thus in an acute care setting patients present with a range of problems that are essential for the HNP to correctly assess, intervene and/or refer on appropriately for resolution of some or all of the patient needs. Therefore at times the nurse works independently whilst on other occasions the nurse consults closely with the Haematology Consultant and works highly collaboratively. Clearly there is a degree of fluidity in this model however the HNP's educational preparation and experience will inform practice in order that the HNP may differentiate when autonomous nursing practice is appropriate, and identify high-risk populations within the haematology patient population that require consultation, collaboration/co-management, or referral[15].

While the development of advanced competencies in oncology nursing remains the brief of the Cancer Nursing Society of Australia, the need for identification of appropriate areas of competency, for the requirements of the project, led to adoption of the work of the North American Oncology Nursing Society Statement on the Scope and Standards of Advanced Practice in Oncology Nursing[16].

The major sub-roles of a nurse practitioner – direct clinical practice, education, consultation and research – are demonstrated by these competencies. Emphasis is placed on providing clinical and professional leadership; advancing nursing practice to the "cutting edge" through education and research; and, contributing to the development of health policy in the interests of patients and health services[15]. This framework also provided some direction for the educational preparation of the nurse practitioner.

Education

Major emphasis was placed on the development of an education program. It was designed to build on a requisite post registration qualification in oncology and extensive clinical experience in haematology nursing to further develop context based clinical knowledge, skills and attitudes relevant to the specialist area of haematology and necessary for advanced practice[15].

This clinically-driven accelerated program consisted of 12 modules conducted over the 12 months of the project. Supernumerary status was accorded the candidate to assist in progressing through the accelerated program. The total period was the equivalent of 0.6 of an effective full time (EFT) position or 32 weeks distributed over the duration of the project[15].

The module areas included were: advanced counselling; advanced nursing practice; cannulation; clinical decision making; diagnostic imaging; diagnostic pathology; microbiology and infectious diseases; pharmacology; physical assessment and history taking; rehabilitation; and transfusion medicine. A range of acknowledged experts across disciplines participated in the provision of lectures and tutorials: Haematology Consultants and Pathologists, Medical Physicians, Senior Medical Scientists, Pharmacists, Clinical Nurse Consultants, Clinical Nurse Specialists, Radiologists, University Faculty, Nurse Educators-Intensive Care/ Oncology; Haematology Nurse Manager. Teaching strategies, in varying combinations across the modules, comprised: formal lecture presentation, one-on-one tuition, observational placement and self-directed learning. In addition, medical and nursing supervision was provided throughout the clinical placement/practicum[15].

Selected procedures, investigations and management decisions that could be well defined by appropriate and clearly documented best practice guidelines, were identified and developed as clinical protocols. These involved: bone marrow biopsy, diagnostic imaging and pathology, pharmacology, and transfusion medicine. A limited formulary was also developed from which the HNP was able to select and nurse-initiate medications contingent on medical authorisation[15].

Responsibilities were accepted by the HNP in a graded manner commensurate with the ability of the nurse practitioner to perform at the desired level. Ongoing assessment of the HNP's skills base to assess competency and determine degree of allocation of responsibility was performed. Mastery over practice and achievement of an advanced level of performance in all role competencies is a variable and dynamic process that develops over time. Meanwhile, it was critical that the education program produce a safe and effective practitioner. Thus initial competency (entrance level-nurse practitioner) was rigorously assessed through a combination of written and oral examinations and clinical assessment[15].

In the future it is anticipated that this program may represent one major component of a clinical Master's Degree of Nursing that would provide a global view on health and advanced nursing practice and prepare the candidate for clinical and professional leadership[15].

Model of practice

A collaborative model of practice was identified as most suitable for the establishment of an advanced practice role in haematology nursing. Such a model of practice may be thought of as an interdisciplinary partnership or joint practice[17]. The professional relationship between the HNP and haematology medical staff in particular is highly collaborative.

Collaborative relationships require certain fundamentals to ensure productive alliances and the creation of an environment in which collaboration is valued and practised.

These include: shared values, a common purpose, mutual trust and respect, and effective interpersonal communication and negotiation skills. The diverse and complimentary knowledge, skills, experience and resources each participant brings to the collaborative effort must be understood and valued. Then, each team member may participate in a synergistic alliance that maximises the contributions of each participant and improves the quality of assessment, decision-making, problem solving, and choice of intervention. Subsequently a comprehensive health service is produced that could not be achieved by individuals alone[18,17, 19].

Conclusion

Following completion of the PMCI Haematology Nurse Practitioner Project in May 2000, a limited, local evaluation demonstrated high levels of stakeholder satisfaction, and an overwhelming positive response to the role. On a broader scale recommendations enclosed in the final report of the Victorian Nurse Practitioner Taskforce to progress the implementation of the nurse practitioner role in Victoria were received favourably by the State Government[2]. Consequently the Institute has given a firm commitment to continue this role that continues to evolve, and is currently the subject of research that aims to further explore the nature and scope of practice in advanced haematology nursing.

The PMCI Haematology Nurse Practitioner Project as part of the Victorian Government initiative is contributing to a national consideration of the nurse practitioner role. New South Wales, the first to formally establish the nurse practitioner role, has: defined scope of practice, set educational and credentialling standards, developed legislation necessary for practice extension and introduced regulatory measures. Victoria now joins with South Australia and moves into an implementation stage whilst the remaining States continue in various phases of role exploration[9,8,20,2].

The evolving nurse practitioner role offers enormous potential within a dynamic health system, to provide enhanced, collaborative interdisciplinary care, which is patient focused and responsive to the myriad needs of the oncology patient.

References

1 A B Hamric, J A Spross and C M Hanson (Eds.) Advanced Nursing Practice: An Integrative Approach (1st ed.). W B Saunders Company: Philadelphia, 1996.

2 Victorian Nurse Practitioner Taskforce. Victorian nurse practitioner Final report of the task force. Department of Human Services: Melbourne, 2000.

3 L P Woods. "Conceptualizing advanced nursing practice: curriculum issues to consider in the educational preparation of advanced nurses in the UK." Journal of Advanced Nursing, 25, 4 (1997), 820-8.

4 United Kingdom Central Council for Nursing, M.a.H.V. A higher level of practice Report of the consultation on the UKCC's proposals for a revised regulatory framework for post-registration clinical practice. United Kingdom Central Council for Nursing, Midwifery and Health Visiting, London, 1999, 1-34.

5 L C Ford. "A deviant comes of age." Heart & Lung 26, 2 (1997), 87-91.

6 L Dunn. "A literature review of advanced clinical nursing practice in the United States of America." Journal of Advanced Nursing, 25, 4 (1997), 814-9.

7 United Kingdom Central Council for Nursing, M.a.H.V. Higher level of practice (Specialist practice project phase II) Paper as agreed by Council 3 June 1998 United Kingdom Central Council for Nursing, Midwifery and Health Visiting, London, 1998, 1-17

8 New South Wales Health. Key Projects: Nurse Practitioner. Office of the Chief Nursing Officer NSW Health, 2000.

9 Department of Human Services South Australia. Nurse practitioner project report South Australia (NU PRAC PROJECT). Department of Human Services: Adelaide, 1999, 1-65.

10 Department of Human Services Victoria. Victorian Nurse Practitioner Bulletin. Department of Human Services Victoria, Melbourne, 2000, 6.

11 A B Hamric. In: A B Hamric, J A Spross and C M Hanson (Eds). A definition of advanced nursing practice, in advanced nursing practice an integrative approach. W B Saunders, Philadelphia, 1996, 42-56.

12 D McCaffrey Boyle. In: A B Hamric, J A Spross and C H Hanson (Eds). The clinical nurse specialist, in advanced nursing practice an integrative approach W B Saunder, Philadelphia, 1996, 299-336.

13 American Nurses Association. Nursing facts advanced practice nursing: a new age in health care. American Nurses Association, 1997.

14 American Academy of Nurse Practitioners. Nurse practitioner as an advanced practice nurse role position statement. The American Academy of Nurse Practitioners, 2000.

15 Peter MacCallum Cancer Institute. Haematology nurse practitioner model of practice final report. Peter MacCallum Cancer Institute: Melbourne, 2000.

16 Oncology Nursing Society. Statement on the scope and standards of advanced practice in oncology nursing. Oncology Nursing Press, 1997.

17 J F Stichler. "Professional interdependence: the art of collaboration." Advanced Practice Nursing, Quarterly/Summer 1, 1 (1995), 53-61.

18 A Barron and P White. In: A B Hamric, J A Spross and C M Hanson (Eds). Consultation in advanced nursing practice: an integrative approach. W B Saunders, Tokyo, 1996, 165-183.

19 C M Hanson and J A Spross. In: A B Hamric, J A Spross and C M Hanson (Eds). Collaboration in advanced nursing practice: an integrative approach. W B Saunders, Tokyo, 1996, 229-248.

20 Royal College of Nursing Australia. "Nurse practitioners network. An overview of the nurse practitioner projects in Australia." Connections (Royal College of Nursing Australia Newsletter), 3 (1 February, 2000).

SUPPORT FOR RESEARCH 2001

The state and territory cancer organisations which comprise The Cancer Council Australia are the major sponsors of cancer research and related activities in Australia. Grants are made following a competitive, peer reviewed assessment from funds derived from donations and bequests.

In addition, the grants for breast cancer research made by the National Breast Cancer Foundation are listed. The Foundation has been established by the Federal Government, with an independent Board of Trustees to encourage research in all aspects of breast cancer.

In 2001 the value of these grants will exceed $15 million. Details of the grants are published below.

Anti-Cancer Council of Victoria

ANTI-CANCER COUNCIL OF VICTORIA RESEARCH GRANTS

A/Professor David Ball Division of Radiation Oncology Peter MacCallum Cancer Institute	Tumour volume as an independent prognostic factor in non-small cell lung cancer	$35,000
Dr A Brooks & Dr E Maraskovsky Dept of Microbiology & Immunology University of Melbourne	MICA expression in malignant melanoma: consequences for NK and T cell activation	$55,000
Dr M Brown Department of Biochemistry & Molecular Biology University of Melbourne	Identification of molecular events that regulate BRCA1-mediated tumourigenesis	$60,000
Dr L J Campbell & Dr L B Irving Victorian Cancer Cytogenetics Service St Vincent's Hospital	Search for novel tumour suppressor genes on chromosome 9p21 in lung cancer	$58,232
Professor P Choong & Dr H Zhou Dept of Orthopaedics St Vincent's Hospital	The roles of the urokinase plasminogen activator system and osteoclast resorption in the development of osteosarcoma	$47,000
Dr P Darcy, Dr J Trapani & Dr M Smyth Cancer Immunology Research Laboratory Peter MacCallum Cancer Institute	Immunotherapy of cancer using genetically engineered T cells	$50,000
A/Professor P Gibson & A/Professor E Nice Department of Medicine University of Melbourne	Molecular regulation of migration in normal and neoplastic colonic cells	$55,000
Dr M Gillespie & Professor T J Martin St Vincent's Institute of Medical Research	PTH-related protein in breast cancer: its role in metastatic invasion in bone	$56,000
Dr J Halliday, Dr B Meiser & Dr C Gaff Murdoch Institute	Impact of genetic testing for hereditary non-polyposis colorectal cancer on psychological adjustment, screening compliance and decision-making in regards to preventative strategies	$20,000
Professor J Hamilton, Dr X Csar, Dr N Wilson & Dr D Marks Dept of Medicine University of Melbourne	Molecular basis for the dysregulated growth control through the proto-oncogene c-fms in myeloid leukemic cells	$60,000
Dr K Harder, Dr M Hibbs & Professor A Dunn Melbourne Tumour Biology Branch Murdoch Institute	An analysis of the Lyn tyrosine kinase in myeloid cell tumour suppression using both loss- and gain-of-function mutant mice	$50,000
Dr J Heierhorst St Vincent's Institute of Medical Research	Regulation of the human tumour-suppressor protein kinase Chk2	$50,000
Professor J Hopper, Dr E Smibert, Dr A Mitchell & Dr K Waters Dept of Haematology & Oncology Royal Children's Hospital University of Melbourne	Victorian paediatric cancer family study	$65,627
Dr R Hughes Department of Pharmacology University of Melbourne	Molecular design and biological analysis of antagonists of vascular endothelial growth factor D	$45,000
Dr R Johnstone Peter MacCallum Cancer Institute	Characterisation of the anti-apoptotic function of P-glycoprotein	$45,000
A/Professor R King, Dr L Vo & Mr P Delaney Department of Pharmacology Monash University	Development of non-invasive imaging of subsurface melanomas in vivo by miniaturised fibre optic confocal microscopy	$66,500
Professor D Kissane, Professor S Bloch, A/Professor D Clarke & Dr R Snyder Centre for Palliative Care	Supportive-expressive group therapy for women with metastatic breast cancer	$14,671

University of Melbourne

Dr G Lindeman Dept of Haematology & Medical Oncology Royal Melbourne Hospital	The Kathleen Cunningham Consortium for research into familial aspects of breast cancer	$55,000
Dr J-P Liu & Dr H Li Baker Medical Research Institute	Molecular targeting of protein kinase C-alpha-telomerase in human breast cancer cells	$53,563
Dr M MacManus & Dr J Seymour Peter MacCallum Cancer Institute	Randomised trial of radiotherapy (RT) vs chemo/RT for stage I-II follicular lymphoma	$30,000
A/Professor F Macrae, A/Professor J St John, Dr B Leggett & Professor J Jass Royal Melbourne Hospital	A trial of aspirin and/or resistant starch in people at risk of hereditary colorectal cancer	$65,000
Dr G Mann, Professor J Hopper, Dr J Aitken, Professor R Kefford, Professor G Giles & Professor B Armstrong Dept of General Practice & Public Health University of Melbourne	Australian Melanoma Family Study	$22,343
Professor C Mitchell Dept of Biochemistry & Molecular Biology Monash University	The characterisation of a novel 108 kDa inositol polyphosphate 5-phosphatase: regulator of cell death	$50,000
Dr U Novak & Professor A Kaye Department of Surgery University of Melbourne	The role of hyaluronan in brain tumour invasion	$58,713
Dr L Purton, Mr D Haylock & Dr P Simmons progenitor Division of Haematology and Medical Oncology Peter MacCallum Cancer Institute	Enhancing ex vivo expansion of primitive haemopoietic $50,000 cells by all-trans retinoic acid	
Dr I Radford induced Peter MacCallum Cancer Institute	Defining aspects of the mechanism of ionising radiation- $56,503 DNA rearrangement in mammalian cells	
Dr S Stacker & Dr M Achen Ludwig Institute for Cancer Research	The role of vascular endothelial growth factors in the metastatic spread of cancer	$55,000
A/Professor E Thompson, Dr L Ackland & Dr D Newgreen Victorian Breast Cancer Research Consortium	Regulation of the epithelio-mesenchymal transition in human breast cancer cells	$66,000
Dr T Tiganis Dept of Biochemistry & Molecular Biology Monash University	Regulation of the protein tyrosine phosphatase TCPTP	$24,502
Total Grants in 2001		$1,419,654

ANTI-CANCER FOUNDATION
SOUTH AUSTRALIA

POST-DOCTORAL RESEARCH FELLOWSHIPS

Dr K Buzzard, Peter MacCallum Cancer Institute	$21,418
Dr M Halford, Ludwig Institute for Cancer Research	$21,418
Dr T Johnson, Dept of Biochemistry & Molecular Biology, University of Melbourne	$42,835
Dr A Ng, Institute for Reproduction & Development, Monash University	$42,835
Total fellowships	$128,506

SCHOLARSHIPS AND STUDENTSHIPS

Post-Graduate Research Scholarships

Ms Y Cao, Baker Medical Research Institute	$19,875
Mr A Deans, Peter MacCallum Cancer Institute	$21,150
Ms S Grant, Royal Melbourne Hospital Research Foundation	$9,938
Mr R Redvers, Peter MacCallum Cancer Institute	$21,150
Dr M Shackleton, Victorian Breast Cancer Research Consortium	$27,150
Ms M Smart, Dept of Physiology, University of Melbourne	$19,875
Dr S Ting, Dept of Medicine, University of Melbourne	$ 27,150
Vacation Studentships	$19,000
Total Scholarships & Studentships	$165,288

FELLOWSHIPS

Carden Fellowship Professor Emeritus Don Metcalf, Walter and Eliza Hall Institute of Medical Research	$200,000
Dunlop Fellowship Dr Andrew Roberts, Walter and Eliza Hall Institute of Medical Research	$90,770
K & H Fraser Fellowship Walter and Eliza Hall Institute of Medical Research	$100,000
Lions Fellowship (variable) Dr Andrew Elefanty, Walter and Eliza Hall Institute of Medical Research	approx $50,000

Total Fellowships	$440,770

OTHER RESEARCH PROGRAMS

Walter & Eliza Hall Research Programs in 2001 Drs David Vaux, Andreas Strasser and Steve Gerondakis	$200,000
Medical & Scientific Activities	$144,000
Total Other Research Programs	$344,000

CANCER CONTROL RESEARCH INSTITUTE PROGRAMS

Epidemiology Research Centre	$943,000
Victorian Cancer Registry	$872,000
Behavioural Research Centre	$803,000
Centre for Clinical Research in Cancer	$807,000
VicHealth Centre for Tobacco Control (ACCV contribution to VicHealth Centre)	$150,000
Total Cancer Control Research Institute Programs	$3,575,000
TOTAL RESEARCH FUNDED	$6,073,217

ANTI-CANCER FOUNDATION OF SOUTH AUSTRALIA RESEARCH GRANTS

A/Professor L Ashman Division of Haematology Hanson Centre for Cancer Research	Role of PETA-3/CD151 in epithelial cancer invasion and metastasis	$60,308
Dr G Booker Department of Biochemistry University of Adelaide	Understanding the structure and function of the tumour suppressor actinin-4	$55,866
Dr M Brown Department of Medical Oncology Royal Adelaide Hospital	Investigation of the combined use of surgical castration and Flt-3 ligand or progenipoietin in novel dendritic cell-based immunotherapies in a murine model of prostate cancer	$59,589
Dr T Cleary Department of Pathology University of Adelaide	Role of paps synthetase in growth of cancer cells in metastatic sites	$61,278
Dr L Coles Division of Human Immunology Hanson Centre for Cancer Research	Cold shock domain proteins as repressors of VEGF gene transcription	$56,866
Professor A Ferrante Department of Immunopathology Women's and Children's Hospital	The use of novel fatty acids to treat prostate cancer	$49,197
A/Professor D Findlay Department of Orthopaedics and Trauma Royal Adelaide Hospital	Sensitisation of cancer cells to TRAIL-induced apoptosis	$53,424
A/Professor J Gamble Vascular Biology Laboratory Hanson Centre for Cancer Research	Tight junctions as a target for angiopoietin 1	$52,306
A/Professor T Gonda Hanson Centre for Cancer Research	Identification of potentially novel oncogenes capable of transforming myeloid cells	$56,146
Dr P Hart factor for Department of Microbiology & Infectious Diseases Flinders Medical Centre	Is a high dermal mast cell prevalence a significant predisposing $58,857 human melanomas?	
A/Professor D Horsfall malignancy Department of Surgery Flinders Medical Centre	Prognostic importance of androgen receptors in prostatic $45,843	
Dr T Hughes Division of Haematology Hanson Centre for Cancer Research	Enhancing the activity of the ABL-specific tyrosine kinase inhibitor ST1571 on the leukaemic stem cells in CML	$57,886
Dr D Keefe Department of Medical Oncology Royal Adelaide Hospital	Further studies of mucositis in rats and humans undergoing cytotoxic chemotherapy for cancer	$54,425
A/Professor S Kumar Division of Haematology Hanson Centre for Cancer Research	Recombinant autoactivating caspases for killing cancer cells	$54,681
Professor A Lopez Division of Human Immunology Hanson Centre for Cancer Research	Role of the 14-3-3 family of proteins in human GM-CSF and IL-3 receptor signalling in leukaemic cells	$51,624
Professor P Mackenzie Department of Clinical Pharmacology Flinders Medical Centre	Colorectal cancer and the expression of chemical detoxifying UDP glucuronosyltransferases	$56,452
Professor G Maddern Department of Surgery The Queen Elizabeth Hospital	Improving the safety and efficacy of electrolysis	$18,585
Professor A Morley Department of Haematology & Genetic Pathology Flinders Medical Centre	Detection of point mutations in normal and cancer cells	$54,546
Dr C Ricciardelli Flinders Cancer Centre Flinders Medical Centre	Changes to the physicochemical structure of chondroitin sulphate side chains of versican and role in prostate cancer progression	$58,700
A/Professor R Richards Department of Cytogenetics and Molecular Genetics Women's and Children's Hospital	Fragile sites in cancer : biological consequences of DNA instability at the FRA16D and FRA3B loci	$64,906
Dr G Suthers Department of Medical Genetics Women's and Children's Hospital	kConFab: A national consortium for research into familial breast cancer	$51,135
Professor W Tilley progression Department of Surgery Flinders Medical Centre	Investigation of a novel mechanism contributing to disease $59,993 in prostate cancer	
A/Professor D Wattchow Department of Surgery Flinders Medical Centre	Follow-up of patients with colorectal cancer: A comparison of specialist and GP-based strategies	$59,588
Dr B Wattenberg Division of Human Immunology IMVS	Anti-apoptotic function of Bc1-2, identification of a unique mitochondrial targeting protein	$51,736
Dr C Yandell Division of Human Immunology Hanson Centre for Cancer Research	The role of the a-subunit in activation of the GM-CSF receptor	$53,424
Dr E Yeoh Department of Radiation Oncology Royal Adelaide Hospital	The effects of therapeutic irradiation for prostatic carcinoma on anorectal and colonic function	$49,296
Professor H Zola Child Health Research Institute	International workshop on human leucocyte differentiation antigens	$48,000
Total		$1,454,657

OTHER RESEARCH PROGRAMS FOR 2001

Two Associateships	$99,312
Two Fellowships	$119,236
Travel Grants	$30,000
Distinguished Visitors	$15,000
Student Vacation Scholarships	$12,000
PhD Scholarship	$25,000
Data Managers Program	$80,000
Prostate Data Manager Program	$20,000
Radiation Therapists	$8,000
Chair in Cancer Care	$100,000
Total of Other Research Programs	$508,548
TOTAL RESEARCH FUNDED	$1,963,205

THE CANCER COUNCIL TASMANIA RESEARCH GRANTS

Dr G Woods	Characterising carcinogen induced immunosuppression and tumour escape	$34,683

University of Tasmania		
Dr S Ragg University of Tasmania	Towards a novel differentiation therapy of leukaemia using Ceramide	$44,603
Professor R Lowenthal University of Tasmania	Identification of optimum length of G-CSF administration prior to bone marrow stem cell harvesting	$28,738
* Dr G Woods, Dr S Ragg, Professor R Lowenthal University of Tasmania	Towards a novel differentiation therapy of leukaemia using Ceramide	$45,000
* Dr G Woods, Dr C Tramba University of Tasmania	Analysis of Mini-P-Glycoprotein in normal and leukaemia cells	$20,716
* Professor R Lowenthal, Dr R Harrup, D Tuck University of Tasmania	Analysis of outpatient bone marrow transplantation (BMT)	$10,682
Total Amount Granted		$184,422

* In conjunction with the David Collins Leukaemia Foundation

JEANNIE FOSTER FELLOWSHIPS

J Burrows Oncology & Immunology Laboratory, University of Tasmania	$230
W Ploeg & J Milner Joint application to undertake training course in complex physical therapy for the control of Lymphoedema	$770
A Costin Royal Hobart Hospital Graduate Certificate of Loss, Grief and Trauma Counselling in South Australia	$700
J Garnsey Cancer Council of Tasmania Attend 3rd Global Conference for cancer organisations “Facing the Challenge”	$800
Total Fellowships Awarded	$2,500
TOTAL RESEARCH FUNDED	$186,922

CANCER FOUNDATION OF WESTERN AUSTRALIA RESEARCH GRANTS

Dr D Elsaleh phenotype Dept of Radiation Oncology Sir Charles Gairdner Hospital	Evaluation of the predictive significance of the methylator $50,000 in the response of Dukes’ C colorectal carcinoma to adjuvant chemotherapy	
Dr R Lake University Department of Medicine Western Australian Institute for Medical Research	Combination of chemotherapy and immunotherapy in malignant mesothelioma	$50,000
Dr L Fritschi Department of Public Health University of Western Australia	Risk factors for cancer in a cohort of Australian veterinarians	$48,000
A/Professor J Olynyk University Department of Medicine Fremantle Hospital	Characterisation of the factors that affect liver stem cell proliferation, differentiation or malignant transformation in patients with chronic liver disease	$49,717
Dr J Williams Laboratory for Cancer Medicine University of Western Australia	Generation of HLS5 knockout mice – an in vivo model for investigating the role of a potential tumour suppressor gene	$46,000
Dr J Bentel Department of Pathology Royal Perth Hospital	Loss of expression of the NKX3.1 gene in prostate cancer	$49,998
Professor R Donovan Centre for Behavioural Research in Cancer, Division of Health Sciences Curtin University of Technology	Perceptions of cancer in the Australian population	$50,000
Dr L Abraham University of Western Australia	Regulation of CD30 expression in Hodgkin’s and non-Hodgkin’s lymphoma	$49,931
A/Professor G Yeoh Department of Biochemistry University of Western Australia	Using the p53 nullizygous mouse to follow cellular and genetic changes	$49,723
Dr E Williams Centre for Applied Cancer Research University of Western Australia	Rational design and development of novel compounds for cancer treatment	$50,000
A/Professor P Leedman Laboratory for Cancer Medicine, University Department of Medicine Royal Perth Hospital		$50,000

TOTAL RESEARCH GRANTS	$543,369

OTHER RESEARCH GRANTS

TVW Institute for Child Health Research Childhood cancer research project	$55,000
Division of Health Sciences, Curtin University Centre for Behavioural Research in Cancer Control	$125,000
Department of Public Health, University of WA WA Cancer Epidemiology project	$25,248
School of Nursing and Public Health, Edith Cowan University Clinical research fellow palliative care nursing	$25,000
Dr Moira O’Connor et al Schools of Psychology, Edith Cowan University Prevalence of depression in palliative care patients	$10,000
Sir Charles Gairdner Hospital FAP Registry	$25,766
Hollywood Hospital Bone Tumour Registry	$17,919
TOTAL OTHER RESEARCH PROGRAMS	$283,933

VACATION RESEARCH AWARDS

Ms S See Gwelup WA	Are liver stem cells related to bone marrow cells which belong to the lymphoid lineage?	$1,200
Mr J Tan East Perth WA	Do inflammatory cytokines produced by the resident macrophage of the liver promote growth of precancerous liver cells?	$1,200
Ms P Sappl Kalamundra WA	Are liver stem cells related to bone marrow cells which belong to the lymphoid lineage?	$1,200
Ms H Wilson Cottesloe WA	Are liver stem cells related to bone marrow cells which belong to the lymphoid lineage?	$1,200
Mr R Gomer Subiaco WA	Is the growth of precancerous liver cells promoted by cytokines released by resident macrophages?	$1,200
Mr P Bolitho $1,200 Ferndale WA	Do inflammatory cytokines produced by the resident macrophage of the liver promote growth of precancerous liver cells?	
Ms A Chan $1,200 Shenton Park WA	Are liver stem cells related to bone marrow cells which belong to the lymphoid lineage?	
Total Vacation Research Awards		$8,400
TOTAL RESEARCH FUNDED		$835,702

THE CANCER COUNCIL NEW SOUTH WALES NEW RESEARCH GRANTS

Dr J Wiggers University of Newcastle	A randomised controlled trial of a computerised smoking cessation intervention in a surgical pre-admission clinic	$31,605
Professor D Joshua Centenary Institute of Cancer Medicine and Cell Biology	Identification of the specificity of potential myeloma specific clonal CD8 T cells using TCR transfectants	$63,167
Dr A Rice University of New South Wales	Development of targeted immunotherapy of treat relapsed leukaemia post stem cell transplantation	$112,544
A/Professor W Rawlinson University of New South Wales	The aetiology of breast cancer, and the involvement of diet, hormones and the human homologue of the mouse mammary tumour virus	$72,487
Dr M Stockler University of Sydney	Antidepressants and subjective well-being in advanced cancer: a double blind randomised trial of Sertraline and St John’s Wort	$87,071
Total		$366,874

CONTINUING RESEARCH GRANTS

Dr R Ward St Vincent’s Hospital	Analysis of the humoral immune response to HER-2/neu in breast cancer using phage display	$60,747
Dr A de Fazio	Mechanisms underlying the protective effects of tamoxifen	$56,009

University of Sydney	on normal mammary gland	
Dr P Hersey Newcastle Mater Hospital	The role of TRAIL in induction of apoptosis in human melanoma and in T cell responses to melanoma	$57,353
Dr M Norris University of New South Wales	Molecular detection of residual disease in childhood leukaemia and its association with clinical outcome	$60,410
Dr R Bates University of Newcastle	Investigation of the signalling role of variant CD44 in regulating apoptosis in colon cancer cells	$54,969
Dr L Rivory University of Sydney	Overcoming inter-individual variability in cancer chemotherapy	$62,114
A/Professor P Butow Royal Prince Alfred Hospital	Discussing prognosis and treatment goals with patients with metastatic cancer	$48,767
Dr B Fazekas De St Groth Centenary Institute, Royal Prince Alfred Hospital	A pilot study of tumour RNA-pulsed dendritic cell immunotherapy in ovarian cancer	$73,407
Dr S Ackland University of Sydney	Prospective meta-analysis: Quality of life data in two randomised trials of chemotherapy for asymptomatic metastatic colorectal cancer	$24,767
A/ Professor K Bradstock Westmead Hospital	Analysis of cellular immune response to melanoma antigens after allogeneic haematopoietic stem cell transportation	$71,224
Dr G Mann University of Sydney	Australian melanoma family study	$72,657
Dr P Hogg University of New South Wales	Tumour Angiogenesis	$201,000
A/Professor G Marshall University of New South Wales	Defining the cause and improving the treatment of childhood neuroblastoma	$320,000
Professor R Sutherland Garvan Institute of Medical Research	Steroid and growth factor signalling in the pathophysiology of breast and prostate cancer	$400,000
Total Continuing Research Program Grants		$1,563,424

RESEARCH FELLOWSHIP

Professor R Reddell Children's Medical Research Institute	Carcinogenesis	$400,000
Total Research Fellowship		$400,000

OTHER RESEARCH PROGRAMS

Clinical Epidemiology Research Unit	$596,000
Cancer Education Research Program	$500,000
Hereditary Bowel Cancer Registers	$195,500
Total Other Research Programs	$1,291,500
TOTAL RESEARCH FUNDED	$3,621,798

QUEENSLAND CANCER FUND RESEARCH GRANTS

T Antalis, A Suhrbier and D Gotley Queensland Institute of Medical Research	Evaluation of a new cancer immunotherapeutic target	$65,000
C Bain, M Moore and D Purdie University of Queensland	Population and Laboratory Study of the Relationship of Xenoestrogens and Phytoestrogens to Ovarian Cancer	$53,500
C Baldock, T Kron, G Michael and D Schlect Queensland University of Technology	Development and investigation of radiation-sensitive polymer gels for measuring three-dimensional ionising radiation dose distributions in breast radiotherapy	$62,000
A Boyd, C Schmidt and A Nicol Queensland Institute of Medical Research	Immune response to Eph and Ephrin proteins in tumours and blood disorders	$63,500
M Brown, K K Khanna and K Spring University of Queensland	BRCA1 in DNA repair and tumourigenesis	$66,500
J Bullock-Saxton, R Box and W Stanton University of Queensland	Objective criteria for early identification of secondary arm lymphoedema after breast cancer surgery	$32,273
G Chenevix-Trench, R Neubold, D Trott & E Baker Queensland Institute of Medical Research	The identification of the colorectal cancer tumour suppressor gene inactivated on Chromosome 8	$58,894
Q Fong, P Zimmerman, I Yang, B Clarke and E Duhig Prince Charles Hospital	Glutathione S transferase (GST) genotypes and non-small cell lung cancer	$52,895
Q Fong, B Clarke, E Duhig and P Zimmerman Prince Charles Hospital	Smoking and gender differences in the molecular biology of lung cancer	$50,170
Q Fong, B Clarke, E Duhig and P Zimmerman Prince Charles Hospital	Mapping the molecular changes in bronchial epithelium from smokers	$26,400
B Gabrielli and S Goldstone Queensland Institute of Medical Research	What is the role of cyclin A during G2 phase of the cell division cycle?	$26,400
R Gardiner, K Ellem, C Schmidt, D Hart, G Seymour and J Yaxley University of Queensland	Prostate Cancer: an internal, solid – malignancy model for vaccine therapy	$84,480
A Green, R Neale and K Ter Schegget Queensland Institute of Medical Research	The association between human papilloma viruses and squamous cell carcinoma of the skin	$52,865
A Green, C Williams and G Marks Queensland Institute of Medical Research	What role do dietary factors play in the development of skin cancer	$26,400
J Hancock and A Apolloni University of Queensland	An investigation of the intracellular trafficking of K-ras	$70,000
J Harris and G Muscat University of Queensland	Selection, characterisation and evaluation of chemotherapeutic dUTPase Inhibitors	$64,162
N Hayward, G Kay and M Cummings Queensland Institute of Medical Research	Development of Mouse Models of Multiple Endocrine Neoplasia Type 1	$64,500
G Hill, D Hart and J Ferrara Mater Medical Research Institute	The role of G-CSF in chronic GVHD after allogenic peripheral blood stem cell transplantation	$58,000
A Kelso Queensland Institute of Medical Research	Functional flexibility of the CD8+ T cell response to tumour cells in vivo	$61,475
KK Khanna and D Young Queensland Institute of Medical Research	To investigate the functional link between ATM and Nibrin in DNA damage recognition	$70,000
KK Khanna Queensland Institute of Medical Research	To study the contribution of ATM gene in DNA–damage induced phosphorylation of BRCA1	$65,640
R Khanna Queensland Institute of Medical Research	Molecular characterisation of novel Epstein-Barr virus encoded immunomodulatorsand their role in the cytotoxic T cell-mediated immune response	$26,400
R Khanna Queensland Institute of Medical Research	Characterisation of genetic variants of LMP1 oncogene associated with nasopharyngeal carcinoma	$63,500
M Lavin and H Beamish University of Queensland	Interaction between ATM and BLM and implications for tumourigenesis	$63,761
W Liu and K Zhao University of Queensland	Interaction between papillomavirus and tubulin: a mechanism of virus translocation?	$50,170
G Mann, J Aitken, J Hopper, R Kefford, G Giles and B Armstrong Queensland Cancer Fund	Australian Melanoma Family Study	$65,000
P Marlton and R Saal Princess Alexandra Hospital	Comprehensive assessment of minimal residual disease in patients with good prognosis acute myeloid leukaemia for the prediction of relapse and development of therapeutic algorithms	$35,675
N Martin and N Hayward Queensland Institute of Medical Research	Linkage disequilibrium mapping of a gene for mole development	$60,987
P McGrath, E Conrad, Y Khadro and H Clark Queensland University of Technology	An exploration of the usefulness of the concept of spiritual pain in palliative care	$50,280
N McMillan University of Queensland	The role of the human papillomavirus E7 oncoprotein in the evasion of the antiviral effects of Interferon	$61,100
K Miles, M Windsor, R Abraham, K Slaughter, B Clarke, E Duhig and Q Fong Wesley Research Institute	Biological Correlates of CT Perfusion Imaging and FDG-PET in Lung Cancer	$26,400
D Moss, A Galbraith, S Bell, S Elliott, S Sillins and M Sherritt Queensland Institute of Medical Research	Defining the parameters of treatment and maintenance of adoptive immunotherapy for post-transplant lymphoma in solid organ transplant recipients	$65,000
D Nicol, E Walpole, A Johnson and J Jonsson University of Queensland	Efficacy of Captopril in the treatment of patients with advanced renal cell carcinoma	$50,915
P Parsons, A Green and M Roberts Queensland Institute of Medical Research	The molecular consequences of sunscreen application in vitro and in vivo	$52,013
R Radford-Smith, J Jass, B Leggett and J Searle RBH Research Foundation	Characterisation of key pathological events in the development of colorectal and hepatobilary neoplasms in patients with inflammatory bowel disease by detailed clinicopathological and molecular analyses	$56,565
N Saunders University of Queensland	Biological Characterisation of Neoplastic Progression in Keratinocytes	$50,170

REPORTS

COMMUNICATION AND CANCER:
COSA 2000 SCIENTIFIC MEETING

The success of COSA 2000 was largely due to the enthusiastic participation of those who attended and made the most of the interactions afforded by this multidisciplinary meeting. Over 600 people attended and due to the number of registrants and strong support by the pharmaceutical industry and the Anti-Cancer Foundation of South Australia, a profitable result was achieved.

Of specific interest was the strength of the overseas attendances with registrants from Canada, Iran, Hong Kong, New Zealand, The Philippines, Saudi Arabia, Singapore, Thailand, USA, China and the United Kingdom. The attraction was the theme of the meeting Communication and Cancer which is seen as increasingly important throughout all cancer related specialties.

Communication and Cancer

This topic allowed innovations in the design of the meeting and could be broadly interpreted by each of the groups that constitute COSA. Right from the early days of planning and the brief to the graphic designer to produce a logo which symbolised Adelaide and Communication in Cancer, through to the actual final program, innovations were evident. The logo depicts the central map grid of Adelaide in a disk shape that could be variably interpreted as a communication dish or microchip. Underpinning the theme, we staged the first presentation by video-conferencing, utilising for the first time the expertise available in Darwin, providing a tropical twist to the subject of febrile neutropenia.

A tangible manifestation of the theme was the commissioning of a CD rom, supported by Aventis, which will be circulated to participants, it focussing on the plenary sessions and international presentations. This gives the presentations more lasting impact and allows those who are unable to attend to review the highlights of the meeting.

Finally, in supporting the COSA Council's desire to promote the multidisciplinary nature of the meeting (although each of the groups of COSA is responsible for designing their own parts of the program), the group which organised a session did not have its name included in the final program, which resulted in a truly multidisciplinary mixture of participants in each of the sessions. Our feedback was that this was a positive move which facilitated the registrants participating in a broader range of sessions which in turn benefited from the lively multidisciplinary input.

A further highlight of the theme was the way of which each of the groups interpreted it. This ranged from the cell/cell communication that was a focus of a cancer research group seminar, through the use of mobile phones and cancer, to the areas of communication between health professionals and between health professionals and patients by the psycho-oncology group.

The program was well supported by the participation of our international faculty, Charles Balch, Jonathon Berek, Eric Cassell, Nessa Coyle, David Frame, Theodore Lawrence, John Little, and Richard Sainsbury.

Opening Ceremony

We were delighted to have the meeting opened by the Hon Dr Basil Hetzel, a distinguished clinician and researcher, who recently retired as Lt Governor of South Australia. He has made an enormous contribution to the control of iodine deficiency diseases throughout the world and brought his translational research and epidemiological expertise to a discussion on the epidemiology of cancer. He personified the value of interdisciplinary communication. His opening address provided a strong scientific start to the meeting.

Plenary Sessions

The plenary sessions were designed to cover as broad an area as possible with half-hour presentations. The first picked up the theme of the meeting. I reported on the evaluation of a Darwin/Adelaide teleoncology link. Tabitha Healey, a medical oncology trainee, presented research into febrile neutropenia which she had performed while on rotation to Darwin. Then, Dale Fisher from Darwin presented via video-conference, a fascinating talk on melioidosis, a tropical disease that must be considered in the appropriate season, as a possible infectious agent in patients who present with febrile neutropenia.

Charles Balch, who is the Executive Vice-President and Chief Executive Officer of the American Society of Clinical Oncology, then highlighted ASCO's role in the international oncology community. Relevant to the presentation was the suggestion that at a future COSA meeting, ASCO could have a joint symposium with COSA using video-conferencing.

The second day's plenary featured three excellent presentations on diverse topics. Theodore Lawrence presented State-of-the-art radiotherapy, which served to educate a wider audience on this field, and also underpinned the relevance of research which is being undertaken in Australia in newer radiotherapeutic techniques. Stewart Grossman was unable to attend the meeting and Fran Boyle presented a paper in managing difficult cancer pain problems. To conclude, Eric Cassell bought a long clinical experience to bear on the use of information as a therapeutic tool in the communication between health professionals and patients.

In the final plenary Nessa Coyle focussed on the management of intractable symptoms at the 'end of life'. This certainly included the increasing requirement for a multidisciplinary team. In the second part of the plenary, Martin Tattersall the recipient of the AMRAD/MOG award, presented a lecture which provided an overview of the development of oncology as a specialty in Australia.

Scientific Sessions

The outstanding session on the first day and certainly one that attracted most media attention was a symposium on mobile phones and cancer. Updates were provided on the Adelaide Pim-1 project and Pam Sykes' work on the effect of radio-frequency radiation of intrachromosal recombination in PK21 mice. While J Finnie looked at vascular permeability in mouse brains in response to radiofrequency fields. Bernard Stewart reflected on policy on mobile phones in relation to known hazards and Dr Bangay looked at compliance with standards and the exposure from hands free kits.

This session highlighted that there is still a lack of definite information in this field which remains a fruitful area for well conducted scientific research.

Also on this first day, an all day symposium on cancer registries covered the roles and applications of registries to many areas.

The theme of the meeting was strongly under-pinned by sessions in palliative care and a session on assisting patients in decision making, while the multidisciplinary nature of the meeting was under-pinned by a session on sentinel node biopsies as it applied to melanoma, breast and gynaecological cancers.

The second day's sessions continued the multidisciplinary theme with sessions on translational research from bench to bedside and the communication scheme in a session looking at the future of communication skills and training in cancer care. More specific sessions included 3D conformal radiotherapy, melanoma staging and treatments, new drug development and sessions on breast and gynaecological cancer.

A workshop on issues of hope and prognosis by Eric Cassell and Martin Tattersall focussed on this contentious issue in the literature.

The final day had a scientific focus on familial cancer and in an afternoon session to supplement that session looking at genetic pathways and cancer, while the communication theme continued with the assessment of patient needs and a session on the increasing use of electronic data management in cancer research.

Breakfast Sessions

The breakfast sessions proved incredibly popular with a session on difficult cancer patients having five times the number of people wishing to attend than there were places. This carried over to the next day where the New South Wales Cancer Council launched a video on a training package for health professionals on interactional skills.

Poster Sessions

A broad range of posters were presented this year. Having the posters central to the activities between oral sessions meant that they had good exposure to participants in the conference. However, it was important to increase the exposure of the posters and a newer initiative was the introduction of poster discussion sessions where groups of like posters were clustered and a discussant highlighted the topics calling upon the poster presenters to underline the major points of their posters.

The success of this clearly depends on the skills of the discussant and it was generally felt that it was important that the information presented in the posters should be given this additional prominence. Much interesting data was presented on a wide variety of topics.

Young Investigator Award

Sandy Yusuf, a student, won the Young Investigator Award with her presentation of research into burnout in Australian cancer professionals. There is much in the overseas literature on this topic but this was a study from the team at Royal North Shore Hospital on the burnout prevalence in Australia and its predictive factors. It is exciting that such a young investigator was successful this year and augurs well for the future.

As I reflect upon the third COSA meeting that I have convened, there is no doubt that COSA has changed over the years and must play to its strength in being a national multidisciplinary body. The success of the multidisciplinary sessions in this meeting highlights that the pursuit of this focus will serve COSA well in the future. I also reflect on the organisation of the meeting; it is vital to have a strong organising committee drawn from each of the specialties and a strong secretariat with years of experience in the logistics of such meeting.

My strongest impression of the year 2000 meeting was the number of enthusiastic younger registrants who participated in a broad range of sessions and strongly supported breakfast sessions and social functions such as the conference dinner with enthusiasm. The ability of COSA to change and the flexibility in trying new ways of presenting Annual Scientific Meetings will maintain the enthusiasm of the membership into the scientific meetings of the next millennium.

AUSTRALIAN BEHAVIOURAL RESEARCH IN CANCER

This report is a regular feature in Cancer Forum describing behavioural applications in cancer prevention.

Australia has four behavioural research centres: the Centre for Health Promotion and Cancer Prevention Research (CHP&CPR) of the University of Queensland, Cancer Education Research Program (CERP) of The Cancer Council New South Wales, the Centre for Behavioural Research in Cancer (CBR) in the Anti-Cancer Council of Victoria and the Centre for Behavioural Research in Cancer Control (CBRCC), Curtin University of Technology, Perth.

This report has been edited by Allison Boyes (CERP) from the reports received.

New Results

- From the Cancer Education Research Program (CERP), NSW

Community knowledge of cancer: What difference have we made in the last 10 years?

Concerted efforts have been made over recent decades to educate the Australian public about the importance of cancer prevention and early detection. To examine the effect of such educational campaigns, CERP investigated the current knowledge of cancer amongst the NSW community. A computer assisted telephone interview (CATI) survey was administered to NSW residents aged 15 years and older who were randomly selected from the NSW telephone directory. Of the 1,113 eligible participants, 685 (62%) completed the survey. The results indicated that less than half of the sample was able to accurately estimate the lifetime risk of getting each cancer. Although the majority of respondents were aware that smoking (96%) and sun exposure (80%) were risk factors of lung cancer and melanoma respectively, deficiencies in knowledge of risk factors for bowel, breast, cervical and prostate cancer were evident. At least one symptom related to melanoma, breast and bowel cancer was known by over fifty percent of respondents. Pap smears (87%) and mammograms (82%) were the best-known cancer screening tests. Comparisons with data from a 1989 survey that used the same survey items indicated that although there was a moderate increase in knowledge of risk factors for melanoma, bowel and lung cancer, there was no increase in the knowledge of symptoms. A large change in women's knowledge of mammograms was observed between the two surveys, with twice as many women being aware of mammograms in the current survey. Overall, these results suggest that although there have been some modest increases in cancer knowledge, the risk factors, symptoms and tests of particular cancer remain poorly understood.

- From the Centre for Behavioural Research in

Cancer (CBRC), Vic

Tobacco advertising at point of sale

The recently published Quit Evaluation Studies: Volume 10, includes a chapter by Tessa Letcher reporting the results of a study, conducted in April 2000, of the extent and type of tobacco advertising at the point of sale in retail outlets, and whether this varies with the relative location of the outlet to secondary schools. Fieldworkers visited 222 outlets around Melbourne including milkbars, supermarkets, petrol stations and newsagents. The main forms of point of sale tobacco advertising observed were obvious visual displays such as cigarette dispensing units, display cases, pop-out advertising tag cards, illuminated signage and posters. All of these received high prominence ratings. The pattern of brand advertising closely followed the patterns of brand preference found among adult and young smokers; the top four brands available for sale reflected the same brands and order of popularity as the top four brands smoked by both student and adult smokers. Only 42% of outlets displayed signs inside the store regarding the legal age at which one may be sold cigarettes (18 years old) and only 5% of the outlets surveyed displayed no internal tobacco advertising. Results indicated no significant differences in levels or types of point-of-sale advertising between outlets located near or away from schools.

Under amendments to the Victorian Tobacco Act (1987) passed in May 2000, from July 1 2001 all tobacco advertising from the point of sale is banned: only one tobacco display point and only one cigarette packet of each brand variant is allowed. Health warning or smoking cessation signs must be displayed at the point of sale. Further reforms were recently announced by the State Government including making it compulsory to display signs about legal age requirements at the point of sale. Such reforms are consistent with one of the strategy objectives highlighted in the National Tobacco Strategy: to prevent uptake of smoking among children and young people.

n From the Centre for Health Promotion and Cancer Prevention Research (CHPCPR)

Young children's exposure to ultraviolet radiation

David O'Riordan has recently completed his PhD on the topic of young children's exposure to ultraviolet radiation. His research was to investigate the level of young children's exposure to UVR and to examine the association between estimates of exposure based on time reported outside as well as personal UVR received with polysulphone dosimeters.

Three related studies were undertaken to investigate the measurement of UVR received by young children. Study 1 was a community based study to investigate the feasibility of undertaking research that involved the measurement of young children and their mothers' levels of UVR exposure. Based on the findings reported in Study 1, a more comprehensive study was undertaken in Study 2. This involved children in two age categories (infants: <12 months of age, toddlers: 3 years of age) and their mothers. Within each sample, half the participants maintained a diary, while the remaining participants wore polysulphone dosimeters and maintained a diary. Data was collected over four consecutive days. Study 3 was undertaken in child care centres. In addition to the use of ambient and personal polysulphone dosimeters, observational techniques were utilised to monitor the time that young children spent under shade while outside to establish the effect it has on estimates of UVR exposure.

Results

Time reported outside

A number of factors were found to influence the amount of time young children and their mothers spent outside included the age of the child (infants or toddlers) and the period of the week (weekdays or weekend). Toddlers (3 years of age) and their mothers spent more time outside than infants (< 1 year of age) and their mothers.

Levels of personal UVR exposure based on polysulphone dosimeters

Young children and their mothers received insufficient levels of UVR_{eff} to result in an erythemal response on unprotected skin during either winter or summer months while they were outside on a single occasion on the dosimeters. The association between children having been sunburnt this summer and their levels of UVR exposure was examined. The results showed that infants who had been "pink or red" more often, received higher levels of UVR. However, for toddlers no significant relationship was identified for mild sunburn.

Association between personal UVR and estimates of exposure

In past studies estimates of UVR have been calculated from time reported outside and the levels of ambient UVR recorded during that time. The level of association between estimated exposure and the levels of UVR received by children with polysulphone dosimeters provided only moderate correlations. The age of the child was related to the level of association, with the infants data (r=0.42) showing a slightly higher correlation than toddlers (r=0.36). Mothers' diary records of their child's time outside resulted in a proxy measure of the child's estimated UVR exposure. This approach was useful for the children 0-4 years of age involved in this research, as overall there was little difference in the correlations for estimated exposure (MPD) and the levels of UVR exposure of mothers (r=0.45) or children (r=0.49).

Research in the Pipeline

n From CERP

Perceived needs among early breast cancer patients diagnosed with lymphoedema

Many breast cancer survivors will develop lymphoedema of the arm as a disabling complication of treatment. The physical morbidity suffered by women due to lymphoedema is significant. Dr Janice Perkins and colleagues are currently undertaking a study, funded by The National Breast Cancer Foundation, to measure the prevalence of perceived unmet psychosocial needs among women treated for breast cancer, who suffer from lymphoedema. The research team has developed the Lymphoedema Needs Questionnaire (LNQ) based on published literature, other needs assessment instruments and focus groups with patients. The LNQ assesses a number of dimensions including information needs, psychological needs, physical and daily living needs, patient care and support needs and sexuality needs. The survey will be distributed to a random sample of 1,000 women throughout Australia who were diagnosed with breast cancer between 1995-1997 and who have clinically defined lymphoedema of the arm. Women will be recruited nationally through the relevant state-based cancer registries.

This study will provide the first population-based data on the needs of women with lymphoedema of the arm, and will guide the development of targeted intervention strategies to meet the identified needs.

n From CBRC

Patient transport project

CBRC, in collaboration with the Patient Services Development Unit at the Anti-Cancer Council of Victoria, has recently surveyed radiotherapy patients to examine the extent of need for a volunteer driving service to assist patients to get to and from treatment. Over 490 patients from eight Victorian treatment centres were interviewed by researchers from CBRC. Issues explored in the questionnaire include: family support (in particular, the distances travelled by family members providing transport support); stress and tiredness experienced by patients as a result of their mode of transport; costs incurred on a weekly basis; initial reactions of the patient and their family to the news that 20-35 consecutive days of travel was required; attitudes to, and likely use of a volunteer service and the patient's overall assessment of their own transport arrangements. The survey data are currently being analysed with a view to determining a needs assessment and appropriate service development response.

n From CHPCPR

Skin cancer and teenagers (SCAT) redevelopment of resources

It has been well documented that exposure to sun during childhood can be a contributing factor to the development of skin cancer. Considering the amount of time children spend at school, this environment can play a major role in reducing the levels of UVR exposure received by children. Children's levels of ultraviolet radiation (UVR) exposure may be reduced with the introduction of a broad range of strategies such as targeting school policies, the school environment, curriculum, and nurturing community links. This new study is designed to redevelop the SCAT modules in line with the current health education curriculum and principles of the health promoting schools model. A survey is currently being designed for secondary school principals and heads of the health and physical education departments to determine the extent of utilisation of the original modules provided to secondary schools in 1995; establishing the schools priorities in terms of adolescent sun protection compared with other adolescent health issues; to determine whether formal policies exist regarding sun protection and the most appropriate media for the new modules.

n From CBRCC

Utility perceptions of costs & benefits associated with health risk behaviours

Funded by Healthway, the West Australian Health Promotion Foundation, the aim of the research is to investigate the applicability to health behaviour of recent research in decision making from the fields of economics and consumer research.

Determining the effectiveness of sun protection messages by type of behaviour targeted

Also funded by Healthway, the aim of this project is to investigate the relationship between message framing and learning behaviour theories in order to develop more effective communication strategies to encourage Australians to engage in sun-protective behaviours.

Enhancing moralisation of tobacco amongst young people via the emotion of disgust

Another Healthway funded project, this research proposes to explore in depth in young people the emotion of disgust, with the explicit aim of providing concrete recommendations for the design of communication materials targeted at young people in an attempt to moralise smoking.m

Perceptions of cancer in the Australian population

Funded by the Cancer Foundation of WA, the main outcome of this study will be the development of a database of the Australian population's perceptions of cancer incidence, causation, prevention, screening and survivability. We are particularly excited about this project as we will be collaborating with researchers from the Cancer Education Research Program (CERP) in New South Wales, who have recently completed a similar project.

NEWS

n From CERP

The Administrative Review of CERP was undertaken in late November 2000 by Associate Professor Jane Hall (Chair, Director, Centre for Health Economics Research and Evaluation, The University of Sydney; Professor John Howe, Head, Community and Behavioural Health, College of Public Health, The University of Iowa and Dr Andrew Penman, Chief Executive Officer, The Cancer Council New South Wales. The outcome of the review will be known in mid-February.

CERP has had a number of recent grant successes. Associate Professor Afaf Girgis, in collaboration with researchers at the Hunter Centre for Health Advancement, was awarded additional funding from the Community Health and Anti-Tuberculosis Association to continue an early childhood intervention to prevent infant exposure to tobacco smoke. Associate Professor Afaf Girgis, in collaboration with researchers at the University of Newcastle, was also awarded a grant from the University of Newcastle Research Management Committee to undertake a feasibility study of interventions to promote better nutrition, increased physical activity and weight management in women with early breast cancer.

Congratulations to Dr Kathy Rainbird (CERP PhD student) who was given a Young Researchers Award to present her doctoral research at the 6th International Congress of Behavioural Medicine in Brisbane. We also wish Kathy well in her new appointment as Senior Project Officer with the National Breast Cancer Centre.

n From CBRC

Melanie Wakefield has recently taken up an appointment as VicHealth Senior Research Fellow and Deputy Director at CBRC. Melanie has worked for the South Australian government since the mid 1980's in conducting applied research for a range of public health campaigns. She has been a key player in evaluating South Australia's statewide tobacco control program, and a chief investigator on a series of smoking intervention trials for pregnant women, families with asthmatic children, and patients with cancer. She has just completed two years at the University of Illinois at Chicago, working as part of the senior management team on a national project funded by the Robert Wood Johnson Foundation to study the impact of tobacco control policies on youth smoking in the United States. She is Principal Investigator on a 4-year (US$4.2 million) grant from the US National Cancer Institute to study the relationship between anti-smoking advertising, news coverage on tobacco, and teenage smoking. She is a senior editor of Tobacco Control: an International Journal, and a scientific advisor to the American Legacy Foundation, which is responsible for the US national anti-smoking campaign. CBRC welcomes Melanie back to Australia, and to Melbourne.

n From CBRCC

The Centre for Behavioural Research in Cancer Control (CBRCC) celebrated its first birthday on 10 January 2001. We have had a very busy and successful year, and have a number of exciting projects in the pipeline. We have expanded from 1.8 FTE to 3.2; and we welcome Dr Nadine Henley from ECU who has accepted a 12 month contract as a Senior Research Fellow and Liane McDermott, formerly of CHP&CPR, who will shortly be commencing with us as a PhD student.

NEWS & ANNOUNCEMENTS

New name, logo and Cancer Forum!

From April 2001, the Australian Cancer Society will be named The Cancer Council Australia and will adopt a new logo featuring the daffodil, our symbol of hope for all people touched by cancer.

The daffodil is a symbol which is familiar and meaningful to the general community, our partners and stakeholders. It better represents the objectives of The Cancer Council and its members and the range of services we provide.

The new name and logo will strengthen and promote our joint efforts to prevent and control cancer and support people affected by cancer. It will identify collaborative activities of the state and territory cancer organisations, including fundraising events, merchandise and marketing.

The new identity also provided an excuse for a new cover design and page layout for Cancer Forum, as evinced in this issue.

Cancer Forum will continue to present original and review work on all aspects of cancer control, to report on meetings of significance and provide review of new books and details of conferences and meetings. Contributions are welcome: "Information for contributors" may be found inside the back cover.

National Cancer Prevention Policy

The Cancer Council Australia will publish its National Cancer Prevention Policy 2001-2003 in April.

The National Cancer Prevention Policy advocates for a concerted and comprehensive national approach to the prevention of cancer. It offers clear recommendations on how Australia can enhance its achievements in cancer prevention.

The first section describes a strategic approach to reducing Australians' exposure to preventable risk factors: tobacco, ultraviolet radiation, diet, physical activity and alcohol. The second section presents three areas where, in the absence of risk factors amenable to primary prevention, population screening is an effective approach to reducing the burden of disease.

The new policy was prepared under the direction of the Public Health Committee of The Cancer Council Australia and succeeds the policy document published in 1993.

Cancer in the Bush – Optimising Clinical Services

Cancer specialists from across Australia gathered in Canberra in March to identify the unique problems facing people with cancer who live in rural Australia.

The Cancer Council Australia, the Clinical Oncological Society of Australia and the Commonwealth Department of Health and Aged Care collaborated in organising a meeting to review access, equity and quality in the provision of cancer services in regional and rural Australia.

More than 130 medical practitioners, nurses, other health professionals, consumers and representatives of Federal and State Governments attended the first "Cancer in the Bush" conference in Canberra on March 8 and 9.

Delegates considered issues facing cancer patients in rural areas in accessing quality medical, surgical and radiotherapy treatments, palliative care and psychosocial support.

The outcome was a number of evidence-based recommendations to be presented in the meeting report to the Federal Government.

The meeting was supported by a grant from Macquarie Bank Ltd and assistance was also given by Telstra Countrywide and Integrated Vision.

World Cancer Day

This year, around the world, 10 million people will be diagnosed with cancer. Despite advances in prevention and treatment, the World Health Organisation estimates that within two decades there will be 20 million new cases and 11 million deaths annually.

In recognition of the increasing global burden of cancer, February 4 has been declared "World Cancer Day". It is the anniversary of the first World Summit Against Cancer in Paris last year, at which a global charter against cancer was launched.

The first World Cancer Day on Sunday 4 February this year was marked by a special Inter-Faith Event hosted by The Cancer Council Australia at the University of Sydney's Great Hall.

Jewish, Christian and Islamic speakers presented religious perspectives on cancer. They were accompanied by musical or spiritual interludes, including a performance by the Greek Millennium Choir (including the Olympic Hymn, as performed at the opening of the 2000 Olympic Games), a recitation from the Holy Quran, and a performance of a Psalm from the Dead Sea Scrolls by sacred music duo Kim Cunio and Heather Lee.

Cancer survivors Joel Nathan and Robyn Wicks spoke about their personal spiritual responses to the challenge of cancer.

It was a unique and moving ceremony, incorporating an opportunity for attendees to sign the Charter of Paris Against Cancer – a pledge by individuals and associations around the world to fight cancer and improve the quality of life of people with cancer.

Professor Alan Coates, CEO of The Cancer Council Australia, said World Cancer Day was a way of drawing attention to cancer as a global public health problem. "World Cancer Day is an opportunity to remind governments, organisations and individuals that unless we commit to a major investment in research and improved prevention and treatment, cancer will continue to be a major cause of disease and death both here and around the world," he said. "The fight against cancer is one of the great challenges of the next century, and it's a challenge that transcends state and national borders."

Recognising the contribution of volunteers

More than 20,000 volunteers support the efforts of state and territory cancer organisations to reduce the impact of cancer on communities across Australia.

In recognition of the important contributions of our volunteers, last year the state and territory cancer organisations – working together as the Australian Cancer Society – developed Principles for Volunteer Involvement and Management. The Principles detail our commitment to maintaining and improving volunteer programs and ensuring effective outcomes for staff, clients, volunteers and the community.

Sandy Hollway, Chairman of the NSW Advisory Committee for International Year of Volunteers – and former chief of the Sydney Organising Committee for the Olympic Games – presented copies of the Principles to volunteers representing each of the state and territory cancer councils at a ceremony in Sydney on February 5.

State and territory cancer councils will be organising events throughout this year to acknowledge the contributions of long-serving volunteers and encourage more people to consider volunteering as a positive way to contribute to their community.

BOOK REVIEWS

A Manual for the Prevention of Cancer – Reducing the Odds

G Kune (Ed)

Published by Allen & Unwin (1999).
302 pages plus index. RRP: A$24.95

In recent years a number of books dealing with cancer prevention and early detection have been published. A Manual for the Prevention of Cancer – Reducing the Odds is yet another one. This 302 page volume is current, readable, logically and systematically planned text on cancer prevention and early detection. Though written principally for general readership, allied health professionals, health policy makers, counsellors in cancer support groups and interested others will find it useful.

The book is divided into four sections. The first section deals with explanation of how cancer develops which is followed by short description of basic principles of cancer prevention. Differences between primary and secondary prevention are clearly explained using diagrams and tables. Several causes of different cancers are summarised to provide a good overview of the risks of cancer as they relate to an individual.

In the second section of the book each cancer cause is discussed in detail. The details include inherited causes, tobacco and alcohol use, excessive sunlight, the role of diet in cancer causation, physical inactivity, sexual practices and life stresses. This section also mentions some carcinogens that may be found in the environment and in the workplace that could play an important part in the aetiology of some cancers. Occupational Health personnel may find this information particularly useful as it is not readily accessible in general prevention and early detection texts.

The third section of the book describes screening tests and current Australian recommendations that are available for various types of cancer. Less commonly occurring cancers that are often not mentioned in general texts on prevention and early detection are also discussed in this section.

The fourth section includes a comprehensive individual cancer prevention program that advocates healthy lifestyle for those with average risk and for those with one or more known personal risk factors. There are nine achievable primary prevention recommendations tabled. Similar recommendations are given for participating in known and available screening procedures. A positive and sensible conclusion, which suggests that using the individual prevention program in collaboration with a medical practitioner could markedly reduce the risk of developing cancer. If however cancer develops the program may assist in early identification.

The last part of the book contains a comprehensive glossary of technical terms, references for further reading and the addresses of major cancer organisations in Australia, New Zealand, United Kingdom, Canada and USA. The national Australian telephone information is also included.

Although this book does not cover treatment, it is a good and quick reference for the general public and for those who work in prevention and early detection of cancer.

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Advances in Nutrition and Cancer 2

V Zappia et al (Eds)

Published by Kluwer Academic/Plenum Publishers (2000).
ISBN: 0-306-46306-7. 299 pages plus index.
RRP: US$95.

This volume is based on papers presented at the Second International Symposium on Nutrition and Cancer held in Italy in 1998. It includes a series of 24 individual papers covering issues ranging from updates on epidemiological studies undertaken or underway in Italy, to discussions of the role of specific foods and food components in cancer prevention or promotion; to the emerging field of molecular epidemiology; to the molecular basis of nutrient effects, and to the potential of selected nutrition interventions.

The introductory paper gives a series of brief updates of selected aspects of diet and cancer including the concept of nature versus nurture, the specific issue of the role of dietary fat in breast cancer, ongoing and completed preventative antioxidant trials, dietary guidelines and the potential of bioengineering. This is followed by a more specific contribution describing the methodological and procedural background to the Italian arm of the European EPIC study of diet and cancer. At the time of the symposium, few data were available for presentation.

This is followed by another more general article on nutritional factors in human cancer that briefly discusses issues such as the role of total energy intake, various food categories, potential food processing effects, nutrients influencing DNA metabolism, antioxidants and carcinogens in the diet. The energy issue is picked up in another chapter in relation to breast and colorectal cancer. Further chapters in this section discuss the role of alcohol, organochlorines in relation to breast cancer and olive oil consumption and cancer mortality.

The second part of the book contains a number of chapters looking at aspects of cell growth and differentiation and the molecular basis of nutrient effects. Some chapters are very specific in nature such as those discussing regulation of p53 function in cells, or the effect of hydroxytyrosol, a polyphenol from olives; others are more general, such as those discussing the mechanism of protection of brassica plants or cell division cycles and human tumours. The final papers in the book discuss the role of molecular epidemiology in furthering our understanding of the diet/cancer nexus through discussion related to diet and colon cancer, phytochemicals, gene polymorphisms, DNA-adducts as tools in risk assessment and DNA repair pathways. Finally there are two contributions relating specifically to potential nutrition interventions with cereals and fibre or the carnitine system.

The contributors to the book are all experts in their field but because of the nature of the publication, this book does not provide a balanced update on developments in the diet and cancer field. Nevertheless, while the chapters in this book are quite brief, most are well referenced. As such, they may provide the non-specialist reader with an update and an entry point to the wider literature. As such, the book would be a valuable addition to libraries but may have limited appeal to individuals.

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All About Prostate Cancer

F Stephens (Ed)

Published by Oxford (2000)
ISBN: 0 19 551404-1. 130 pages plus index. RRP: A$21.95.

Men diagnosed with prostate cancer seek information which can help them understand the disease and make treatment decisions. They seek this preferably from their health care professionals but often have difficulty accessing the information they need. This book written by a Urologist with many years of experience in its treatment has the potential to be a valuable resource. Dr Stephens' family experience with cancer should provide personal insights into the patient experience.

The first three chapters provide a clear explanation of the nature of the prostate and prostate cancer, setting the latter within the general context of cancer. The descriptions deal clearly and simply with complex subject matter, as do many of the following descriptions in the book. The inclusion of chapters on evidence-based medicine (EBM), the relationship between patients and doctors and case studies are useful aspects.

The author has clearly made a decision to avoid using statistics to describe rates of complications and disease recurrence after treatment, and there may be many patients who would agree with this approach. However to others needing to assess the likelihood of, for example, erectile dysfunction after treatment, this would be a disappointment.

It was sometimes not clear to the reviewer whether the author was writing for the patient or for other health professionals. The section on evidence-based medicine, for example, is more a justification of a personal view (ambivalent), than a clear description of what EBM is, and how it can aid decision-making.

Sections on surgical and radiation treatment provide detailed descriptions which are of great value to patients trying to understand the experience of treatment. However some of these details, such as admission one to two days before the surgery, extensive bowel preparation, length of stay and post operative care reflect earlier rather than current practice.

Dr Stephens has used some outdated terminology such as "impotence" instead of erectile dysfunction and statements such as "impotence" is almost inevitable after full-dose radiotherapy" (p65) are incorrect. Because the effects of treatment on erectile dysfunction are a particular concern to men, significant omissions include mention of nerve sparing radical prostatectomy and the likelihood of retrograde ejaculation after a TURP. It would have been useful to include the excellent resources provided by the NSW Cancer Council under "Further Reading".

Many commentators on evaluation of patient education materials now recommend that these be referenced. No referencing is included in this book. This lack of referencing plus personal recommendations, such as that on page 28, re taking one concentrated isoflavone tablet daily, place the book in the category of "personal view".

Patients making difficult decisions need the best available evidence, presented to them in the way they find most useful. This book would have benefited from a more 'evidence-based' approach. Nevertheless, there is a place for books reflecting a personal view, and despite some dated content, this book is very readable and contains much information of value. It is probably a good idea for clinicians to read it before recommending it to patients to ensure the content is consistent with their own practice.

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Cancer: How Worthwhile is Non-Curative Treatment

M Slevin

Published by Springer (1998)
ISBN: 3540760830. 303 pages plus index. RRP: DM79.

This 310 page book is one volume of publisher Springer-Verlag's "Focus on Cancer" series. Each issue is devoted to a well-defined theme (i.e. basic science, clinical application, diagnostic methods, treatment, complications of cancer and psychosocial problems). The editors, Slevin and Tait, offer this book as a concise overview of general aspects on the current state of the art in the non-curative but active treatment of cancer, intending this for the busy specialist oncologist and other medical practitioners involved in the treatment of cancer.

The contributors are 30 UK oncologists (with three token overseas guests). The paperback is divided into three sections (non-curative surgery, non-curative radiotherapy and non-curative chemotherapy) with each section dealing with various tumour types. All of the information presented can be obtained in most standard textbooks of oncology and there are already several currently available that are targeted at various levels of oncology experience.

This book is out of date. The latest published reference that I could find is 1995, most references are from the 1970s and '80s. The chemotherapy section reads like ancient history. The specialist oncologist will not learn any new information by reading this book.

I do not believe this textbook adds any significant contribution to the increasing number of smaller oncology textbooks and I do not recommend it.

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Cancer Chemotherapy and Biological Response Modifiers

H M Pinedo, D L Longo & B A Chabner (Eds)

Published by Elsevier (1999)
ISBN: 044450074X. 600 pages plus appendices and index. RRP: US$195.

Although it is not clear from the title, this book is actually volume 18 of an annual series. This has major consequences for the nature of the text and makes it an archival volume rather than a stand-alone review of the field. This is made all the more so by the fact that the literature surveyed is that published in 1996 and 1997 and, on the whole, each chapter starts from the premise that the reader has a good knowledge of what went before.

Consequently, it is a book for the cognicenti, and I doubt that it would make a good teaching text or provide a point of entry to cancer chemotherapy for the novice.

It is a compilation by many authors – about 70 are listed as contributers – and, like Gaul, it's divided into three parts: Drugs, Biological Response Modifiers, and Tumors.

The editors are particularly distinguished. Curiously, in such a large book, there are only a handful of displayed items. Whilst this is generally not a problem, articles about Drugs are easier to comprehend when the mind is focussed on molecular detail by clear structural formulae. I didn't find one is this book.

The text is of a high standard and is tightly written throughout. Under the drugs rubric there are eight chapters on antimetabolites, bleomycin, mitomycins, taxanes and other microtubule stabilising agents, topoisomerase I poisons, topoisomerase II poisons and inhibitors, and cisplatin. The main focus is mechanism of action, experimental antitumour activity and clinical trial data. There is also a chapter on new anticancer agents that includes a selection of angiogenesis inhibitors, antimicrotubule agents, cyclin-dependent kinase inhibitors, DNA interactive agents, fluoropyrimidines, nucleoside analogues, platinum analogues, signal transduction inhibitors, thymidylate synthase inhibitors, and topoisomerase I inhibitors. By its very nature, this latter chapter is exciting and its a pity not more room was devoted to it.

There is some redundancy between elements of the new agents chapter and the earlier chapters that included analogue development. Finally, there is a chapter on multidrug resistance that concentrates on the basic biology of the MDR1/PgP and MRP1 genes and their expression in tumor samples. Only a little is said about reversal agents.

The four chapters on Biological Response Modifiers are the shortest section of the book and cover monoclonal antibodies, a wide variety of BRMs, adoptive immunotherapy and hematopoietic growth factors. This section is the least satisfactory, which may be because of the position these modalities hold in clinical therapy, or may be because of space restrictions imposed by the editors. Its not clear which holds sway, perhaps its a bit of both. In any event, one feels that the field of biological response modifiers has not been well-served by its presentation in this context.

On the whole, the 14 chapters on Tumors start with little introduction about the biology of the disease and delve straight into accounts of clinical reports from the perspective of particular tumour types. There are exceptions to this rule which appear to relate to when the tumor type was last featured in the review series. The subjects covered include leukeamias and plasma cell myeloma, non-Hodgkin's lymphoma, paediatric solid tumors, soft tissue and bone sarcomas, melanoma, cancers of the head and neck, lung, upper GI-tract, large bowel and hepatobiliary tract, breast, and brain, and endocrine, genitourinary and gynaecological tumours. This section of the book is particularly helpful since it gives succinct, but detailed, accounts of the effectiveness, or otherwise, of chemotherapy over a wide range of diseases, and disease states.

If you have been collecting this series then it would be sensible to add this volume to your collection, if you can afford it. However, if you haven't, there are probably better ways of spending $A400 to review the literature in these three fields, particularly since the book is now a little "out-of-time" as it describes developments in the years 1996 and 1997 and we're already in 2001.

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Cancer in the Elderly

C P Hunter, K A Johnson, H B Muss (Eds)

Published by Marcel Dekker (2000)
ISBN: 0-8247-0278-6. 583 pages plus index.
RRP: US$195.00.

This is the twenty-third in a series called "Basic and Clinical Oncology" edited by Bruce Cheson from the US National Cancer Institute. Several previous numbers in the series have been reviewed in these pages before.

This volume is the broadest in scope of the series that I have seen so far. An attempt has been made to cover all the cancers relevant to the ageing population which, of course, means the vast majority of malignant diseases. Therefore, this book ends up looking like a comprehensive textbook of oncology in miniature.

Like all multi-author oncology textbooks, the chapter quality is variable depending on the style and emphasis of the respective authors. However, in my reading of previous numbers in this "Basic and Clinical Oncology" series, it seemed to me that a fairly tight rein has been maintained on the various authors' and editors' focus on their topics. The same does apply here. Nevertheless, I felt that only a few of the chapters really managed to integrate cancer care with geriatric care in a clinically useful way.

In particular, I was disappointed that the chapter I expected to be of most interest to me entitled "Comorbidities and Cancer" accounted for only 16 pages out of 583. Just not enough, especially when a the same number of pages was devoted to "Health Services Issues" in the US context, largely irrelevant information for the reader outside North America.

However, Patricia Ganz's excellent offering on assessment of outcomes and quality of life made the book worthwhile.

Writing a useful tome on oncology in the elderly is a difficult job. This is a better effort than most I have seen but could have been better.

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Controversies in Neuro-Oncology

T Weigel et al (Eds)

Published by Karger (1999)
ISBN: 3-8055-6834-7. 370 pages plus index. US$212.25.

This publication is part of a series, "Frontiers of Radiation Therapy and Oncology", originally founded by Jerome Vaeth in 1968. It represents the proceedings from the Third International Symposium on Special Aspects of Radiotherapy, Berlin, Germany, April 30 – May 2, 1998.

The aim of the symposium was to provide an update on major advances in surgical techniques including neuronavigation, chemotherapy, neuropathology, diagnostic techniques and experience with radiotherapy of the central nervous system.

The intended readers of the publication include all clinical sub-specialists of neuro-oncology, with a particular emphasis on radiation oncology.

Topics include technical innovations, management of craniopharyngioma and glioblastoma, radiation tolerance and the treatment of brain metastases. The section on technical advances contains discussions on the role of PET scanning, the use of MRI for mapping eloquent areas of the brain, micro multi-leaf collimators for conformal stereotactic radiotherapy and radiosurgery, boron-neutron capture therapy and intra-operative radiotherapy.

The discussion on glioblastoma covers current best practice and explores new approaches with intracavitary drugs, gene therapy and fractionated conformal stereotactic radiotherapy. There is an excellent overview of current knowledge on the radiation tolerance of the central nervous system that revises former concepts that may have lead to overly conservative practices. The pathogenesis of radiation injury is reviewed with the conclusion that the primary target for white matter necrosis is vascular. The section on the management of brain metastases raises the debate on why stereotactic radiosurgery should now be considered the better option over surgery for solitary lesions.

The textbook mode of gaining new knowledge is limited by the fact that “cutting-edge” information is outdated by the time of publication and access by most readers. The papers were selected mainly from a local faculty and reports from single institutional studies were of limited value. For the busy clinician, a presentation in evidence-based format might have been more useful. This book would be of most interest to those who enjoy reading about a sub-specialty area of oncology in depth although selected papers provided comprehensive overviews for generalist readers.

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Death and Dying in Australia

Allen Kellehear (Ed)

Oxford University Press, (2000)
ISBN: 0 19 551150 6. 354 pages plus index. RRP: A$43.95.

This book has contributions from 29 people, mostly Australian, looking at death and dying at the end of the twentieth century in Australia. Although several books have looked at dying in Australia, this book looks at predominantly the sociology of death and dying. This book is a rich source of information which compliments the other works to come out of Australia in the late 1990s regarding death and society.

The book is divided into three. The first section looks at death including mortality, cultural diversity, funerals and burial customs and the role of belief systems. The second section looks at dying and importantly concentrates on dying in predictable ways. Other than suicide, it does not look at traumatic or sudden death in any detail. The issues covered include cancer, HIV/AIDS, children and ageing. There is an important chapter by Michael Barbato on the phenomena that occur around death.

The third section looks at death and the professions. An interesting omission, especially in the context of the changes of the twentieth century in looking after the dead, is no contribution from anyone in the funeral industry. There are however contributions from palliative medicine, palliative nursing, allied health, pastoral care, law, philosophy and parapsychology.

The overall strength of this book is the wonderful group of contributors who have been marshalled by Professor Kellehear to contribute. Philip Adams, with the wonderful line “death helps prevent overcrowding”, has his usual laconic look at society and its relationship to a difficult topic. John Collins’ chapter on childhood death is an excellent overview.

Most poignant, however, are the personal viewpoints. There are contributions by a woman dying of metastatic breast cancer and a mother who lost a teenage son to leukaemia. In the midst of erudite dissertations, it is arresting to be reminded of the overwhelmingly raw and human face of mortality. At the end, it is a personal journey and whatever society’s norms, that journey reflects the life of the person dying.

For a book that is about death and dying in Australia, it is sad that there isn’t a greater coverage of the belief systems and rituals surrounding indigenous death. For a uniquely Australian account this would certainly strengthen the book. There is also little discussion about maternal and neonatal mortality, traumatic death (especially war) and the attrition of social upheaval.

Overall, this book is excellent reading. The style flows well and the editing has been tight, producing a work for which there is a ready market. It is a book worth having on the bookshelf for anyone associated with people facing a life-limiting illness.

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Dose and Timing: The Pillar of Successful Chemotherapy

G Rosti (Ed)

Published by Elsevier (1998)
ISBN: 0444829687. 126 pages plus index. RRP: US$103.50.

This 129 page book is the third of a series, of European School of Oncology Scientific Updates, written by various authors and edited by G Rosti (Volume 1 was on the Prognostic and Predictive Value of P53, Volume 2 on Cancer in the Elderly: A Nursing and Medical Perspective). Although not reflected in the title, this book deals with high dose chemotherapy. The book contains 10 articles (some with single authorship, others with multiple contributors). Three deal with breast cancer, two with lymphoma, one each with testicular cancer, the EBMT database and lung cancer and a concluding article.

Unfortunately, many of the comments made in the chapters on breast cancer have already been overtaken by several abstracts presented at ASCO 1999 (Plenary Session: Abstracts 1, 2, 3 and 4, ASCO Vol.18, 1999) and much of the discussion in the absence of completed Phase III trials is theoretical. No mention was made of the Australian Study and the literature review is not comprehensive. The presentations are verbose and there is paucity of tables and lack of details of some of the studies presented. There is a bias towards American data. The three articles on breast cancer are partly repetitive, presenting similar data. The titles are enticing and interesting, e.g. Timely chemotherapy in lung cancer: The proper dose at the proper time, but the contents don’t reflect this.

The best (and shortest) presentation is the article on lymphoma and solid tumours. The first line tells it the way it is: “far more is believed and hoped for in the area of high dose chemotherapy than is known with any certainty”. The EBMT (European Group for Blood and Marrow Transplantation) Database is interesting. Fifteen thousand patients have had a bone marrow or peripheral progenitor cell transplantation (NHL 2,500 patients, breast cancer 2,136, multiple myeloma 1,800). It is disappointing that such a large number of patients have been treated but not as part of randomised clinical trials. Selective ongoing studies are mentioned and it is interesting to see what the Europeans are doing.

This series offers some insight of ongoing research in certain institutions but fails to be an overview of current knowledge. The articles tend to be repetitive with no unifying themes and editing has not been tight. I would not recommend buying this book, but a copy for the library would be appropriate.

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Lung Cancer – Principles and Practice

H Pass et al (Eds)

Published by Lippincott Williams & Wilkins
ISBN: 0-7817-1791-4. 1,116 pages plus index. A$358.60.

This second addition of Lung Cancer Principles and Practice is a three-year update of a book intended as a comprehensive reference for anybody with an interest in lung cancer. The format covers details in sections: Biology of Lung Cancer, Aetiology/Epidemiology/Screening/ Early Detection and Prevention, Pathology, Clinical Presentation/Diagnosis/Staging and Prognosis, Surgery, Radiation Therapy, Chemotherapy, Treatment of Small Cell Lung Cancer, Palliation and Special Considerations and Statistics and Trial Design. All sections have sub divisions written by experts in their field. Dr David Ball, head of Lung Unit Radiation Oncology at Peter MacCallum Clinic, Melbourne, wrote the chapter on prophylactic cranial irradiation in small cell lung cancer. The editors note that the proliferation of information on cell biology of lung cancer has led to inclusion of details of FHIT, Telomerase and erb B-2, as well as to the intricacies of the cell cycle and angiogenesis. Lung cancer immunology and gene therapy are completely updated and the newest elements of genetic susceptibility are in a separate chapter. Technical changes in processing material for molecular evaluation are discussed, as is the use of these techniques in defining pre-neoplasia at the chromosomal/genetic level. The newer improved cytotoxic agents and their interaction with radiation is a welcome up date. Presentation of the book is traditional and a little dry. However all the information is there and extremely well referenced at the end of each chapter and well indexed overall. For example for the chapter on Biology of Lung Cancer, General Concepts there were 574 references. Overall it is not the type of book one normally would read from cover to cover but rather reference from time to time. In the surgery area combined cancer resection and lung volume reduction surgery is addressed but there may be too much on the pre-operative preparation of patients. Basically surgeons don’t want patients to just scrape through surgery, and all the barrage of tests to assess patients with borderline lung function are discussed, but as we all know are rarely used in practice. However knowing that the management of lung cancer is multi-disciplinary, this book certainly covers all areas and for each person managing lung cancer the details of others’ specialties is excellent.

Overall, for its price, it is very good value and having a book like this on the shelf would obviate the need for Medline searching etc, when researching special areas in lung cancer for basic and up to date information.

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Methotrexate

B Constein et al (Eds)

Published by Birkhauser (2000)
ISBN: 3-7643-5959-5. 136 pages plus index. RRP: DM198.

It’s been said that more people have got a PhD from studying methotrexate than have been cured by the drug. However, this laconic comment belies the remarkable story of methotrexate, a drug that cured the first patient with metastatic cancer and is still in routine use a half a century after its development. If methotrexate is like the 1960s rock-band the Rolling Stones then this book is like the “best of” CD. The most significant moment in this drug’s history is in the past, but it keeps doing world tours and has triggered off a trail of drug-discovery that has revolutionised the way we treat cancer and some inflammatory diseases.

This small book is not just about cancer. In fact over 50 per cent of the book is dedicated to methotrexate’s use in inflammatory disorders such as rheumatoid arthritis and psoriasis. There is even a small chapter on use in ectopic pregnancy. Even though these diseases don’t directly involve the oncologist it will be worth having these chapters available for ready reference the next time the gynaecology registrar rings you to double check how methotrexate should be given. The chapters on rheumatoid arthritis highlight the unusual toxicities associated with chronic oral administration. They also raise the idea that the anti-inflammatory effect of methotrexate is not solely through anti-folate activity but may also involve anti-T cell activity, modulation of humoral activity and polyamine production. Could these mechanisms also be involved in its anti-cancer effect?

However, for the average oncologist and pharmacologist, the chapters related to the use of methotrexate in cancer are where the money is. Methotrexate – a drug we all know like the back of our hand? Perhaps, but I’ve been taking the back of my hand for granted lately. There are things going on there that I haven’t been keeping up with. The story of methotrexate, laid out in the 50 page section on cancer, is like a microcosm of the development of medical oncology. Methotrexate was the first “designer drug”, developed rapidly after the initial erroneous hypothesis that feeding folate to patients with leukaemia might kill the cancer was proved contrary. The laborious identification of mechanisms of action, drug resistance, drug interaction and drug elimination have laid the foundation for study of all other cytotoxic drugs. New mechanisms of resistance and transport are still being identified at the turn of the century and the search for new targets have spurred the discovery of new drugs such as tomudex and the multi-targeted anti-folates.

This book should be read by every training medical oncologist and clinical pharmacologist not just for gaining knowledge about methotrexate but to gain a greater understanding of the history of cytotoxic drug development last century. The references at the end of each chapter read like a “Who’s Who” in oncology for 1960 to 1990. Like the Rolling Stones “best of” CD, the story of methotrexate development keeps getting played over and over and is still just as enjoyable and probably more significant to read now as it was in its hey-day.

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Multimodality Treatment of Lung Cancer

A Skarin (Ed)

Published by Marcel Dekker (2000)
ISBN: 0-8247-0236-0. 421 pages plus index. US$195.

This book is volume 140 of an ongoing series with the underlying theme of lung biology in health and disease. An examination of the titles of the prior volumes plus the planned volumes in preparation indicates that lung cancer is not seen as a central issue to the target audience of these volumes. Thus, of 142 published volumes with a further 10 in preparation, only seven have been devoted to lung cancer and of these only two previous volumes have in part addressed the treatment of this most common cause of cancer death.

I suspect that most persons interested in lung cancer treatment would consider “multimodality” to mean the use of several different anti-cancer approaches, either concurrently or sequentially, to improve the success rate above that of single therapies alone. If this is what you expect from this book, then you will be sadly mistaken. The 18 chapters therein address all aspects of the management of non-small cell and small cell lung cancers, but are virtually all “single agent” chapters with only three chapters specifically devoted to multimodality treatment.

There is a brief first chapter on lung cancer biology, a chapter on chemo-prevention, and a couple of chapters on staging. Most chapters are referenced up to 1996 with some inclusion of references to abstracts presented at ASCO and the World Lung Cancer Congress in 1997. The only exception is the chapter on radiation therapy for small cell lung cancer which is referenced up to 1999 and presents a very clearly written and up to date summary of radiation therapy to the chest and PCI.

Most of the other chapters are also easy to read and of some interest from the historical point of view, but are neither up to date enough to serve as a guide for current practice, nor written in enough detail for those specialising in the management of this disease. Virtually all the authors come from the Dana Faber or associated institutions and the approach is thus very “North American” but with a rather cautious approval of the use of chemotherapy in metastatic disease and combined modality therapy for stage III B patients.

It is difficult to decide for what audience this book is intended. The “advertisement” on the back cover states that it is suitable for all medical specialists, pathologists, epidemiologists, public health personnel and medical students.

Looking at the titles of previous volumes in this series, it would appear that respiratory physicians are the real intended audience. From that point of view, there are some glaring omissions. For example there are no chapters covering respiratory assessment for surgery or radical radiation therapy fitness, endobronchial management of bleeding or obstructing tumours, or the very important topic of screening high risk subjects for lung cancer. There is very minimal material on the role of PET scanning in lung cancer diagnosis and staging.

Serious cricketing enthusiasts aim to collect every volume of Wisden. If there is someone out there who has collected all 141 previous volumes of this series, then he/she will probably want to purchase this one. For the rest of us though, there are better uses for the US$195 that this book will cost.

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Neuro-oncology: The Essentials

M Bernstein et al

Published by Thieme (2000)
ISBN: 3 13 116 331 3. 495 pages plus index. RRP: DM298.

This book is an excellent introduction to the world of neuro-oncology and given the modest number of pages is comprehensive, although it does not attempt to be encyclopaedic. I found it well thought out and generally easy to read. A particularly attractive feature was the highlighting of key points and controversies in text boxes, as well as the highlighting of pearls in a similar manner. This was useful for browsing through a chapter. Tables are used well, and the illustrations (mostly MRI images) were clearly reproduced.

The topic coverage is wide, including epidemiology to molecular biology, general discussion on treatment modalities including surgery, radiotherapy, chemotherapy and novel therapies. The use of the various neuroimaging techniques was also covered extensively. I found the review on MR spectroscopy to be particularly enlightening for this emerging technique.

In addition, the tumours that are dealt with include the most common such as intracerebral gliomas to rarer types, such as pleomorphic xanthroastrocytomas.

I found discussion of novel modalities such as hyperthermia and gene therapy to be interesting and made an appreciation of the possibilities and difficulties apparent, although they received equal space to more established forms of therapy. The discussion of newer radiation techniques such as IMRT, stereotactic radiotherapy, proton beam radiotherapy etc were very clear and again did not oversell themselves.

The text does not deal with many of the neurologic complications of systemic cancer, other than metastatic disease to brain. These topics have been dealt with in book form by others, so this is not a fatal flaw. Overall, I enjoyed the book and would recommend it to those seeing patients with these conditions. It is likely to be well used.

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Radiotherapy of Prostate Cancer

C Greco et al (Eds)

Published by Harwood (2000)
ISBN: 90-5702-482-9. 477 pages plus index. RRP: US$115.

At the title indicates this book relates to predominantly the management of prostate cancer by radiotherapy. The two authors, who have considerable reputations themselves in the management of prostate cancer, have collected a number of other authors, who also have a significant reputation in the management of this malignancy, to provide individual chapters.

The significant strength in this book is that it is divided into a number of sections all of which cover the relevant aspects for the management of this malignancy. The chapter on Epidemiology and Aetiology of Prostate Cancer is extensive, including assessment of prostate cancer on a worldwide basis, although there is a predominance towards American literature. Pleasingly in the chapter on Patient Selection Criteria for Radiotherapy there is recognition of patient-related as well as tumour-related features.

The references in each of the chapters are reasonably extensive, and for a book published in 2000, included articles released in 1996 and 1997, with some chapters including material from 1998. Thus it is reasonably current. There is even a chapter on the radiobiological principles looking at the impact of altered fractionation methods, as well as a description of the tolerance of normal tissues in the pelvic region to radiotherapy.

The various chapters on treatment highlight much of the available information, and certainly include the advancing fields of 3D conformal therapy, as well as IMRT. Pleasingly the concept of the importance of post irradiation prostate biopsies is included, although there is little included on the clinical significance of a positive biopsy. It may just be that there is insufficient follow up on the individual studies in this subject. Late toxicity is well discussed as is the important feature of sexual function after radiotherapy.

There are some negatives in that there is little discussion about the role of surgery, there being only one short chapter on patient selection criteria. Although this is predominantly a book about radiotherapy, a more exhaustive chapter on surgery seemed warranted (a mere five pages out of a nearly 500 page book). It is somewhat disappointing that there is not a chapter on prostate anatomy, although that is a somewhat minor point.

There is inclusion of two chapters on Deferred Treatment (or Watchful Waiting). The author of the conservative approach (Dr Adolfsson) includes his own material in that chapter, however in the subsequent chapter arguing against this approach, this material (which comprises a relatively large group of patients) is not cited, a small blemish on that chapter.

Some of the illustrations in the chapters on conformal therapy are obviously computer images and do not translate well into black and white images. One loses some of the clarity of detail in that but as a general principle all the tables and illustrations are well done. Although there is mention of dose volume histograms (DVH) for the rectum, there did not seem to be a differentiation between the two circumstances where differing segments of the rectum may have the same DVH. In one situation it is a longer anterior rectal wall being treated, whereas in the other situation there is a smaller lengthwise but circumferential rectal volume treated. The clinical consequence of these two situations is very different despite the same DVH.

However the above negatives should not detract from what is a very good book, up to date, detailed in its evaluation of what is currently taking place in the field of radiotherapy for prostate cancer. On the basis of its American price it is likely to be close to $250 locally. For this price however it is very good value. It is much more extensive and analytical than any of the current chapters in the Radiation Oncology textbooks. Its place should thus be within the library of all Radiation Oncology Departments, if not on the shelf of every Radiation Oncologist who treats a reasonable number of prostate cancers.

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Regional Chemotherapy Theory and Practice

D J Kerr and C S McArdle (Eds)

Published by Harwood (2000)
ISBN: 90-5702-436-5. 100 pages plus index.
RRP: A$104.50.

Demonstrating the clinical benefits of regional chemotherapy remains the holy grail for some clinical researchers. A major problem is the use of data from uncontrolled clinical trials as evidence of benefit.

This short book of only 100 pages tries to supply a conceptual and scientific basis for “a revolution in the use of cytotoxic drugs”. The preface calls it a textbook but the contents are too controversial and imprecise to justify that label.

The first chapter is a rather dense and mathematical discussion of the pharmacokinetics of regional therapy. The next chapter looks at the use of intraperitoneal chemotherapy. Although not specifically stated, the clinical data is restricted to ovarian cancer. There is a comprehensive overview of the pros and cons of this specific approach.

The discussion on the use of regional chemotherapy for colorectal liver metastases mainly represents the experience of the group in Edinburgh. It lacks information about a number of more recent studies. The fourth chapter is on melanoma. It appears to have been written some time ago. For example it ignores the final report on the international multi-centre randomised study of adjuvant perfusion published in the Journal of Clinical Oncology in September 1998.

The chapter on breast cancer seems to ignore the generally accepted belief that micrometastases are present in many patients at the time of presentation and therefore systemic therapy is appropriate, even for preoperative treatment. The next chapter returns to the subject of colorectal cancer, this time examining portal vein perfusion. Why it does not follow chapter three is a mystery. It contains a good description of the basis of this technique. However the clinical data are very brief and uncritical.

The presence of a chapter on cryotherapy in this book appears to be a mystery until one comes across a statement that all patients have an hepatic artery catheter placed for regional chemotherapy. Unfortunately no further details are provided. However the lack of any control data at all makes this just one more complicating factor in assessing the benefits of cryotherapy.

The final chapter is on regional chemotherapy as applied to the CNS and the intrapleural space. The paragraph on the diagnosis of leptomeningeal disease ignores the use of MRI as a diagnostic modality. The subsequent section on intra-carotid infusions could have been usefully expanded as this is an area that is relatively unknown, although the therapeutic potential is very limited. The sections on intrapleural therapy focus mainly on chemical pleurodesis for effusion.

In summary, this book is of little interest except as a guide to someone inclined to write a more definitive text on this subject.

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CALENDAR OF MEETINGS

CALENDAR Of MEETINGS – AUSTRALIA AND NEW ZEALAND

Date	Name of Meeting	Place	Individual or Organisation Responsible for Arrangements	National or International Parent or Sponsoring Organisation
2001				
April				
8-12	22nd Annual Scientific meeting – From Science to Pain	Cairns Qld	DC Conferences Pty Ltd Level 4, 80 Chandos Street St Leonards NSW 2065 Ph: 02 9439 6744 Fax: 02 9439 2504 Email: dcconferences.com.au	Australian Pain Society
22-26	11th International Conference on Second Messengers & Phosphoproteins	Melbourne Vic	Bruce E Kemp Chairman 11th International Conference Second Messengers & Phosphoproteins St Vincent's Institute of Medical Research 41 Victoria Parade, Fitzroy Vic 3065 Ph: 61 3 9288 2480 Fax: 61 3 9416 2676	St Vincent's Institute of Medical Research
May				
6-9	2001 A Colposcopic Odyssey: has the sun set on the Pap Smear?	Fremantle WA	Congress West P O Box 1248 West Perth WA 6872 Ph: 61 8 9322 6906 Fax: 61 8 9322 1734 Email: conwes@congresswest.com.au	ANZSNM
18-22	ANZ Society of Nuclear Medicine "Exploring New Frontiers"	Hobart Tas	Leishman & Associates 13 Goulburn Street, Hobart Tas 7000 Ph: 03 6234 7844 Fax: 03 6234 5958 Email: anzsnm@leishman-associates.com.au	Princess Alexandra Hospital
August				
12-17	Centenary Surgical Oncology 2001	Brisbane Qld	CSOM Secretariat PO Box 1280, Milton Qld 4064 Ph: 07 3858 5498 Fax: 07 3858 5510 Email: csom2001@im.com.au Website: www.csom2001.com.au	HSANZ & ASBT
September				
11-14	6th Australian Palliative Care Conference	Hobart Tasmania	Conference Secretary Conference Design P O Box 342, Sandy Bay Tas 7006 Ph: 03 6224 3773 Fax: 03 6224 3774 Email: mail@cdesign.com.au Web: www.cdesign.com.au/pall2001	
20-22	Australasian Society for Breast Disease Meeting	Gold Coast Qld	Solei Gibbs Medical & Health Care Public Relations Ph: 07 3846 1585 Fax: 07 3846 3403 Email: infor@asbd.org.au	
October				
7-9	"Childhood Cancer: From Mechanisms to Therapeutics"	Bondi NSW	Secretariat Children's Cancer Institute Australia PO Box 81, Randwick NSW 2031 Ph: (02) 9382 1829 Fax: (02) 9382 1850	Children's Cancer Institute Australia
10-13	33rd Meeting of the International Society of Paediatric Oncology – Bone & Soft Tissue Sarcomas Maliginancy in the Adolescent Immunomodulation and cancer	Brisbane Qld	Meeting Secretariat SIOP 2001 Secretariat P O Box 1280 Milton Qld 4064 Ph: 61 7 3858 5580 Fax: 61 7 3858 5510 Email: siop2001@im.com.au	Clinical Oncological Society of Australia Inc
21-24	The 2001 Joint Annual Scientific Meeting of HSANZ and ASBT	Brisbane Qld	Secretariat P O Box 1280, Milton Qld 4064 Ph: 07 3858 5488 Fax: 07 3858 5510 Email: hsanzasbt@im.com.au	
28 Oct 1 Nov	1001 Royal Australian and New Zealand College of Obstetricians and Gynaecologists Annual Scientific Meeting	Melbourne Vic	RANZCOG 2001 ASM Conference Organisers Waldron Smith Management 61 Danks Street, Port Melbourne Vic 32067 Ph: 61 3 9645 6311 Fax: 61 3 9645 6322 Email: wscn@convention.net.au Website: www.ranzcog.edua.u	
2001				
November				
28-30	28th COSA Annual Scientific Meeting	Brisbane Qld	Mr Lawrie Wright Secretariat Clinical Oncological Society of Australia Inc GPO Box 4708, Sydney NSW 2001 Ph: 61 2 9380 9022 Fax: 61 2 9380 9033 Email: cosa@cancer.org.au	Clinical Oncological Society of Australia Inc 2002
28-30	29th Annual Scientific Meeting – COSA	Sydney NSW	Mr Lawrie Wright Secretariat Clinical Oncological Society of Australia Inc GPO Box 4708, Sydney NSW 2001 Ph: 61 2 9380 9022 Fax: 61 2 9380 9033 Email: cosa@cancer.org.au	Clinical Oncological Society of Australia Inc 2003
15-19	6th International Symposium on Paediatric Pain "Pain in Childhood: The Big Questions"	Sydney NSW	Dianna Crebbin Director, DC Conferences Pty Ltd Secretariat P O Box 571, St Leonards NSW 2065 Ph 61 2 9439 6744 Fax: 61 2 9439 2504 Email: mail@dcconferences.com.au	

CALENDAR OF MEETINGS OF INTEREST – INTERNATIONAL

Date 2001	Name of Meeting	Place	Secretariat
April			
18-20	17th International Congress Royal Thai College of Obstetricians and Gynaecologists: the Fetus as a patient	Thailand	Secretariat C/- Suphavit Muttamara MD RTCOG 8th Floor, The Royal Golden Jubilee Building 2 Soi Soonvijai New Petchburi Road, Bangkapi Bangkok 110320 Ph: 66 2 716 5721 or 66 2 716 5722 Fax: 66 2 716 5720
28 – 2 May	ACOG American College of Obstetricians and Gynaecologists Meeting	Chicago USA	ACOG American College of Obstetricians and Gynaecologists Meeting Ph: 1 202 638 5577 Fax: 1 202 488 0787
1-5	7th Congress of the European Association for Palliative Care (EAPC)	Palermo, Sicily, Italy	7th Congress of the EAPC, Kenes International, Tel Aviv, Israel Fax: 972 3 5172484 or 972 3 5140077 Email: eapc@kenes.com http://www.kenes.com/EAPC/
6-8	5th International Conference on fighting Asian Cancers in the New Century of the Asia Clinical Oncology Society	Taipei, Taiwan	N. Chang and G.-J. Pu, Taiwan Cooperative Oncology Group (TCOG), Division of Cancer Research, National Health Research Institutes (NHRI). Fax: 886 2 2782 3755 Email: nicole@nhri.org.tw
17-20	1st Multidisciplinary Colorectal Cancer Congress	Noordwijk The Netherlands	Congress Care: 1st Mutlidisciplinary Colorectal Cancer Congress, PO Box 440, 5201, AK's-Hertogenbosch, The Netherlands Fax: 31 73 690 14 17 Email: info@congresscare.com
21-24	ESGO 12 – International Meeting of Gynaecological Oncology	Venice Italy	Key Congress and Communications S.r.l., Padova, Italy Fax: 39 349 876 3081 Email: info@keycongress.com
22-26	7th International Congress on Oral Cancer	The Hague The Netherlands	Advanced Travel Partners, Congresses and Meetings, The Hague, The Netherlands Tel/Fax: 31 70 427 27 70 Email: icooc@atp.nl
22 – 4 May	21st Annual Hospice & Palliative Care Study Seminar in Britain	London UK	Hospice Education Institute, Essex, Connecticut, USA Fax: 1 860 767 2746 Email: hospiceall@aol.com
26-30	4th International Congress on Lung Cancer	Halkidiki Greece	FORUM International Congress Organizers, Thessaloniki, Greece Fax: 30 31 243588 Email: forup@otenet.gr
30 – 2 May	4th International Gastric Cancer Congress	New York USA	M.S. Karpeh, MD, Memorial Slian-Kettering Cancer Center, New York, NY, USA Fax: 1 212 794 3184
May			
2-4	UICC Familial Cancer Project and International Oncology Conference	Beijing China	Chinese Academy of Medical Sciences, Beijing, China Fax: 86 10 67713648 Email: qiaoy@public.bta.net.cn
2-5	14th Annual Scientfic Meeting of the European Association for Cancer Education	Antwerp Belgium	E.M.L. Haggedoorn, MD, Director WHO-CCCE, Haren, The Netherlands Fax: +31 50 535 1046 Email: +31 50 535 1046
4-8	8th International Myeloma Workshop	Banff, Alberta Canada	National Research Council of Canada, Ottawa, Canada Fax: +1 613 993 7250 Email: Myeloma@nrc.ca
May (continued)			
12-15	37th Annual Meeting of the American Society of Clinical Oncology (ASCO)	San Francisco USA	American Society for Clinical Oncology, Alexandria, Virginia, USA Fax: +1 703 299 1044 Email: info@asco.org http://www.asco.org
17-20	26th Annual Congress Oncology Nursing Society	San Diego USA	P. Moore, Oncology Nursing Society, Pittsburgh, PA, USA Fax: +1 412 921 6565 Email: member@ons.org http:www.ons.og
June			
2-7	96th Annual Meeting of the American Urological Association	Anaheim CA, USA	European Association for Urology, Arnhem, The Netherlands Fax: +31 26 389 0674 Email: eau@uroweb.nl
3-6	7th Central European Lung Cancer Conference"Lung Cancer: the right approach for the right patient"	Prague Czech Republic	7th CELCC, Conference Partners, Prague, Czech Republic Fax: +420 2 2426 1371 Email: info@conference.cz
3-8	15th World Congress of Sexology	Paris France	Regimedia Scientific Secretary Parisexo 17 Rue de Seine 92100 Boulogne Ph: +33 1 4910 0910 Fax: +33 1 4910 0056 Email: parisexo@regimedia.fr
13-16	11th Conference of the European Society for Psycholosocial Oncology	Heidelberg Germany	Psychosoziale Nachsorgeeinrichtung Chirurgische Universitat@sklinik Mrs Solke Ludwig Im Neuenheimer Feld 155, 69120 Heidelberg, Germany Ph: +49 0 62 21 56 27 19 Fax: +49 0 62 21 56 52 50 Email: verkehrsverein@heidelberg.de http://www.cvb-heidelberg.de
13-15	3rd Milan Breast Cancer Conference: European School of Onocology	Milan Italy	European School of Oncology, Viale Beatrice d'Este 37, 20122 Milan, Italy Ph: +39 2 5831 7850 Fax: +39 2 5832 1266 Email: esomi@tin.it
13-16	4th UICC Cancer Management Meeting "European Cancer Control"	Paris France	Institut Gustave Roussy Villejuif Cedex, France Fax: +33 1 4211 5252 Email: tursz@igr.fr
13-16	11th Conference of the European Society for Psychosocial Oncology	Heidelberg Germany	Psychosoziale Nachsorgeeinrichtung, Chirurgische Universitatsklinik, Slike Ludwig, Heidelberg, Germany Fax: 49 (0) 62 21/56 52 50 Email: silke_ludwig@med.uni-heidelberg.de
14-16	13th International Symposium "Supportive Care in Cancer"	Copenhagen Denmark	Imedex USA, Inc., Alpharetta, GA, USA Fax: +1 770 751 7334 Email: meetings@imedex.com
17-20	18th International Conference on Human Tumor Markers	Riga Latvia	Latvian Onocology Center, Riga, Latvia. Fax: +37 1 253 9160 Email: aivars@onkoc.mt.lv
21-24	6th European Haematology Association Congress (EHA)	Frankfurt Germany	EHA, Eurocongres Conference Management, Amsterdam, The Netherlands Fax: +31 20 673 7306 Email: eha2001@eurocongress.com http://www.eurocongres.com/eha2001/
24-27	3rd UICC Global Conference for Cancer: "Working Together for Global Cancer Control"	Brighton UK	M. Swain, MD, Assistant Director/Scientific Liaison, Imperial Cancer Research Fund, London, UK Fax: +44 207 269 3585

Date	Name of Meeting	Place	Secretariat
2001			
July			
8-21	6th International Summer School of Oncology for Medical Students	Groningen The Netherlands	J. de Vries, MD, PhD, Surgical Oncologist, WHO Collaborating Centre for Cancer Education, Groningen, The Netherlands Fax: 31 50 361 4873 Email: summerschool@chir.azg.nl http://surf.to/summerschool
15-18	Cancer Research Campaign Beatson International Conference: Genomic Regulation and Cancer	Glasgow UK	T. Wheeler, Beatson Institute for Cancer Research, Glasgow, UK Fax: +44 141 330 6426 E-mail: t.wheeler@beatson.gla.ac.uk http://www.beatson.gla.ac.uk/beatson/conf/
15-20	50th Anniversary Conference of the UHPE	Paris France	I UIPES Union Internationale de Promotion de la Sante et d'Education pour la Sante, 2 rue Auguste Comte, 92170 Vanves, France Ph: 33 1 4645 0059
18-21	8th World Congress on Cancer of the Skin	Zurich Switzerland	M. Luthi, Dept of Dermatology, University Hospital of Zurich, Zurich, Switzerland Fax: +41 1 255 4403 Email: leuthim@derm.unizh.ch http://www.usz.unizh.ch/skincancer
September			
10-14	International Conference Seoul 2001: American Association for Cancer Research	Seoul South Korea	Cancer Research Institute, Seoul National Medical University, Seoul, South Korea Fax: +82 2 742 4727
13-16	Germ Cell Tumour Conference V	Leeds UK	GCTC V Secretariat, Conference Office, University of Leeds, LS2 9JT Leeds, Great Britain Fax: +44 1 113 233 6107 Email: confoffice@leeds.ac.uk
16-20	Asian-Pacific Conference of Tumor Biology	Beijing China	CICCST/APCTB, Beijing, China Fax: +86 10 6218 0142 Email: ciccsta@public3.bta.net.cn
21-23	First ASCO-Pan Asia Cancer Conference	Taj Palace New Delhi	Dr Rakesh Chopra Fax: +01 11 3752616/3317373 Email: pallavis@corkings.com
23-26	4th UICC Cancer Meeting on Global Cancer Management: Towards a European Model?	Paris France	Institut Gustave Roussy, Villejuif Cedex, France Fax: +33 1 4211 5252 Email: tursz@igr.fr
October			
3-6	8th Hong Kong International Cancer Congress	Hong Kong China	(8th HKICC) 8th HKICC Secretariat, Dept of Surgery, University of Hong Kong Medical Centre, Hong Kong, China Fax: +852 2818 1186 Email: mededcon@hku.hk
9-12	Pacific Rim Laryngectomee Conference and Voice Institute	Honolulu USA	
9-13	9th International Cochrane Colloquium	Lyon France	
21-25	ECCO 11 – The European Cancer Conference	Lisbon Portugal	ECCO 11-Federation of European Cancer Societies Conference Unit, Brussels, Belgium Fax: +32 2 775 0200 Email ECCO11@fecs.be http://www.fecs.be

Date	Name of Meeting	Place	Secretariat
2001			
October (continued)			
26-29	6th Asia Pacific Conference on Tobacco or Health	Hong Kong China	6th APCT, 10/F, Hong Kong Academy of Medicine Jockey Club Building, 99 Wong Chuk Hang Road, Aberdeen, Hong Kong Fax: (852) 2871 8989 Email: hkam@hkam.org.hk
November			
4-7	Annual Meeting of the American Society for Therapeuric Radiology	San Francisco USA	G. Smith, ASTRO, Fairfax, Virginia, USA Fax: +1 703 502 7852 E-mail: gsmith@astro.org http://www.astro.org
7-10	XIXth Chemotherapy Foundation Symposium: Innovative Cancer Therapy for Tommorow	New York USA	J. Silverman, Medical Onocology Dept. Mount Sinai Medical Centre, New York, NY, USA Fax: +1 212 369 5440 Email: J_silverman@smtplink.mssm.edu http://info.neoplastics.mssm.edu/CTF/sympbrochure.html
15-17	2 Curso Latinoamericano de Capacitacion para Coordinadores de Voluntarias de Cancer de Mama	Buenos Aires Argentina	APOVILO (Associacion Pacientes Oncologicos de Vicente Lopez) H. Yrigoyen 1995, Buenos Aires, Argentina Fax: +54 11 4796 1912 Email: apovilo@ciudad.com.ar
16-18	Japan 3rd International Conference on Cancer-Induced Bone Diseases	Awaji Island Hyogo	T. Matsumoto, MD, First Dept. of Internal Medicine, University of Tokushima School of Medicine, Tokushima, Japan Fax: +81 88 633 7121
18-21	16 Asia Pacific Cancer Conference	Manila Philippines	APCC Secretariat Philippine Cancer Society, 310 San Rafael Street, San Miguel, Manila, Philippines Fax: +63 2 7342128 Email: pcsi@uplink.com.ph
December			
7-11	43rd Annual Meeting of the American Society of Hematology (ASH)	Orlando Florida, USA	ASH, Washington DC, USA Fax: +1 202 857 1164 E-mail: ash@dc.sba.com http://www.ash.org
2002			
December			
8-11	18th World Congress of Digestive Surgery	Hong Kong China	Congress Secretariat 18th World Congress of Digestive Surgery C/- Department of Surgery, University of Hong Kong Medical Centre Queen Mary Hospital, Hong Kong Tel: 852 2818-0232/052 2855 4235 Fax: 852 2818 1186 Email: isdshk@hkucc.hku.hk

THE CANCER COUNCIL AUSTRALIA

The Cancer Council Australia is the peak national cancer control organisation.

Its members are the leading state and territory cancer councils, working together to undertake and fund cancer research, prevent and control cancer and provide information and support for people affected by cancer.

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The Cancer Council Northern Territory
The Cancer Council Tasmania
Anti-Cancer Council of Victoria
Anti-Cancer Foundation of South Australia
Cancer Foundation of Western Australia
Queensland Cancer Fund

AFFILIATED ORGANISATIONS
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Clinical Oncological Society of Australia Inc
Palliative Care Australia
Prostate Cancer Foundation of Australia

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THE CLINICAL ONCOLOGICAL SOCIETY OF AUSTRALIA INC

The Clinical Oncological Society of Australia (COSA) is a multi-disciplinary society for health professionals working in cancer research or the treatment, rehabilitation or palliation of cancer patients.

It conducts an annual scientific meeting, seminars and educational activities related to current cancer issues. COSA is affiliated with The Cancer Council Australia.

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Professor J Zalcberg MB BS, PhD, FRACP

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Dr L Kenny MB BS, FRANZCR
Council Nominees
Dr P Butow BA(Hons), MCl in Psych, MPH, PhD
Dr D Goldstein MB BS, MRCP (UK), FRACP
Ms P Yates BA, DipAppSc, MSocSc

MEMBERSHIP

Further information about COSA and membership applications are available from
GPO Box 4708, Sydney, NSW 2001.

Membership fees for 2001

Ordinary Members: $110
Associate Members: $60
(includes GST)

INTEREST GROUPS

Breast Oncology
Cancer Research
Data Managers
Epidemiological
Gastrointestinal Oncology
Gynaecological Oncology
Head and Neck Oncology
Lung Oncology
Medical Oncology
Melanoma and Skin
Oncology Nursing
  (Cancer Nurses Society of Australia)
Paediatric Oncology
  (ANZ Childhood Cancer Study Group)
Palliative Care
Pharmacy
Psycho-Oncology
Radiation Oncology
Social Workers
Surgical Oncology