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Psycho-oncology

Overview

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“I stared down her housedress as she bent over to bathe me. One breast moved with the motion of her scrubbing me. Where the other one would have been there was a scar. Something frightening had happened; I just didn’t know what. Mom and I went on pretending everything was normal, no matter what changed around us, and no matter how sick she got. I went on believing that my mother couldn’t disappear, that could never happen. And I believed it couldn’t happen because it would have been impossible for me to go on without her.”

Frances Cournos was just 11 years of age when her mother died from cancer. The grief and sadness she expresses resonate with the experience of generations of Australians for whom the diagnosis of cancer was all the more devastating because of a reluctance to talk about the situation and a dearth of supportive interventions to assist patients and their families to cope.

Since the 1970s the discipline of psycho-oncology has evolved with the explicit aim of addressing the psychological, social and behavioural dimensions of cancer, at all stages of the disease, from the perspective of both patient and family. Internationally and particularly in Australia, there have been advances in the acknowledgement of the emotional dimensions of the cancer experience, although identification of patient distress is imperfect, increasingly clinicians are aware of critical issues such as anxiety and depression and the effectiveness of treatments for these common complications of cancer. Similarly, there has been increasing recognition of the benefits of communication skills training in improving the capacity of health professionals to respond to the emotional concerns of patients with cancer. In this regard, the Breast Section of the Royal Australasian College of Surgeons and the Medical Oncology Group of Australia have demonstrated outstanding leadership in promoting the importance of communication skills training for members.

Attention to the emotional dimensions of the cancer experience, including the capacity of health professionals to respond sensitively to patients and their families, is increasingly being seen as fundamental to cancer care. However these are broad areas and innovative research in Australia is providing key insights into areas hitherto relatively neglected. This edition of Cancer Forum, dedicated to psycho-oncology, aims to update readers on some of these emerging areas of research. All are of key clinical relevance, in many instances addressing issues of particular concern to health professionals who have felt that lack of evidence has previously limited their capacity to respond appropriately in such contexts. This edition fits fairly neatly into two sections. The first encompasses areas of direct clinical relevance. Although at first glance these papers cover disparate themes, in fact their common link is attention to issues affecting quality of life. The second section addresses the integration of evidence into clinical practice and strategies to enhance the already impressive research history in Australia.

Research advances

Sexuality and fertility

The introduction of breast conserving surgery was a milestone in treatment of breast cancer, as it was associated with demonstrably less impact on body image and sexuality than mastectomy. However, as described by Theves and White, sexuality encompasses more than simply “loss of body parts” and it is important to conceptualise body image and sexuality broadly, appreciating the woman in her social context. As there has been little research into ways of promoting enhanced adjustment in terms of body image and sexuality, the multicentre study evaluating a nurse-led intervention to provide education and promote referral is especially valuable, with the potential to improve outcomes for women in a cost-effective and timely manner. It is unclear to what extent the findings of this study have potential to be expanded to other cancer streams, for example head and neck cancers where morbidity is high, however this project is an important start.

The level of unmet need regarding provision of information about fertility described in this paper is of concern and clearly Australian research is providing a useful framework to appreciate the information and supportive care needs of women diagnosed with breast cancer. This work highlights the importance of excellent communication, as it is clear that the concerns and aspirations of women may not be identical to those perceived by health professionals. Furthermore, information regarding fertility is likely to emerge as an important area informing decision-making for younger women with breast cancer.

Cognition and chemotherapy
Adjuvant chemotherapy in the treatment of breast cancer has been reported to be associated with improved survival, although anecdotal women have complained that this may come at the cost of ‘chemo fog’. Subjective complaints of cognitive difficulties by women receiving chemotherapy have only recently been recognized. Given the enormity of the cancer diagnosis and high rates of anxiety and depression in women with early breast cancer, it has perhaps been tempting to attribute these complaints to co-morbid depression, however the paper by Beadle et al suggests that the cognitive changes demonstrated when neuropsychological testing is performed. As the authors note, there are methodological limitations in existing research, however the prospective study currently being conducted at the Wesley Hospital is likely to provide valuable insights into the nature and extent of cognitive difficulties following treatment with chemotherapy.

This is an important area of research. Central is the nature of the demonstrated deficits and the description of Beadle et al will be of interest for clinicians for whom this is not their core area of expertise. Executive dysfunction can indeed be ‘silent’ at a casual social level, but profoundly disabling for the person and family acquiring self-monitoring and correction, planning and organisation. Given the nature of these deficits, it may be, for example, that a lawyer may struggle with the thought of representation or if individuals experience cognitive deficits. This has clear implications for informed decision-making. Current knowledge does not answer the question of potential risk factors for the development of cognitive deficits, nor indeed the effectiveness of any remediation or long-term strategies. These areas merit further examination.

Wellness

Improvement in cancer survival has in the past been seen as an outcome in itself, but increasingly the notion that the patient should be “grateful and get on with their life” is negated by research demonstrating significant residual side-effects of treatment for many patients. There is now a need to move in the opposite direction, to the previously unmet needs of cancer survivors, with recommendations that there be institutional responses to the difficulties patients and an area which merits investigation in this regard is the attitude of families who may have powerful perceptions about the need for rest and calm to cope with cancer, rather than activity.

Advanced disease

Despite improved treatments, many patients will develop advanced cancer. As pointed out by Schofield et al the emotional impact of the diagnosis of advanced disease is profound, yet this is an area in which research lags behind that for early-stage disease.

In addition to describing the emotional impact of advanced cancer, this paper emphasizes the intimate relationship between emotional and physical symptoms, reminding health professionals that in this population in particular these cannot be considered in isolation.

Research in this patient population has often been considered “too hard”. This paper considers the impediments to research with patients with advanced disease and overviews some practical strategies which may assist in research design. At a fundamental level, it is also important to reflect on ways in which the impact of health professionals to this patient population might respond.

Treating patients with advanced cancer is often stressful for health professionals, and in particular emotional adjustment and support. This paper seeks to identify barriers that may lead to a sense of “cumulative loss”, with the potential to withdraw from the emotional issues facing patients who are inappropriate to conduct research in this population and a desire to avoid being confronted by the emotional concerns of this population. However, qualitative research with women with advanced breast cancer has revealed extremely high recruitment rates and acceptability of exploration of highly sensitive issues.

Carers

The contribution by informal carers of cancer patients is enormous, but it is only recently that the special needs of carers have been recognized, and the acceptability of being understood, with a view to improving services and support. The paper by Girgis and colleagues reminds us that it is appropriate to consider the patient within their social context and not assume that the emotional and informational needs of the patient and caregivers are identical. For many health professionals, this may raise concerns about confidentiality and privacy, however open discussion with patients about the demands of illness and treatment and the importance of adopting an inclusive approach to treatment is likely to be reassuring rather than confronting. Patients may be reluctant to voice their own concerns as they consider the doctor is too busy or not interested, it is possible that they will need the active encouragement of clinicians to raise concerns about their caregivers. The paper by Alpsoy et al highlights the high quality of Australian research and the almost negligible funding. In particular, efforts to identify carers at increased psychological risk is crucial for the future development of carer support and other interventions to reduce morbidity in this population.

Promoting implementation of evidence and future research

Best practice in psychosocial care

Given the short time in which psycho-oncology has existed as a clinical and research entity, progress has been extraordinary. The amount of evidence about the psychosocial impact of cancer and the benefits of interventions is such that concise summaries of the evidence and clinically-relevant recommendations are increasingly absent busy clinicians. Lussex and Fletcher provide an overview of some milestone Australian developments, describing the development of a variety of clinical practice guidelines and their implementation. Evidence about the usefulness of the workshops conducted nationally as part of the implementation of the Clinical practice guidelines for the psychosocial care of adults with cancer is compelling and demonstrates increasing clinical interest in psychosocial aspects of cancer. Incorporation of psychosocial care into routine cancer care has been a gradual, but an unquestionable further progress in the provision of psychosocial care.

Translation of evidence into practice

Stegina et al provide a perspective on translation of the evidence about psychosocial interventions into clinical practice at a community level. The recently-established telebased Cancer Counselling Service is an innovative response to the geographic barriers faced by many patients with advanced cancer, and builds on the acceptability to generate changes in healthcare systems, and the initiatives of the National Breast Cancer Centre described in this paper are likely to enhance identification of psychosocial risk factors and provide a mechanism for the potential to continue to improve the care of patients with cancer, their carers and their families.

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PSYCHOSOCIAL ASPECTS OF SEXUALITY AND AFTERTREATMENT FOR A DIAGNOSIS OF BREAST CANCER

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Abstract
Improved survival from cancer treatments has led to an increasing focus on issues related to long-term survivorship. The psychosocial aspects of parenthood after treatment, fertility and menopause-related issues are growing areas within the psycho-oncology literature. The impact of these issues are especially important in light of their potential to influence treatment decision-making and thereby survival. This article reviews new Australian and international research and innovative initiatives addressing sexuality and fertility after a diagnosis of breast cancer.

Approximately 27% of all new breast cancer diagnoses occur in women who are pre-menopausal at diagnosis. Breast cancer treatment may have reproductive implications that are distressing or discordant with plans for childbearing. For women of all ages, both the diagnosis and resulting treatments for breast cancer can have an impact on a woman’s body image, sexuality and sexual function. These important quality of life issues can be difficult for a woman to raise with the treating team, may increase in adverse outcomes over time and can have an impact on her relationship with partners.

Impact of breast cancer treatments on fertility and menopause
A number of the treatments for breast cancer can have a direct or indirect impact on a woman’s fertility and hormone function. Chemotherapy causes direct toxicity to the ovaries and may cause either temporary amenorrhea or early menopause. Rates of amenorrhea and early menopause following individual chemotherapy regimens vary according to type of chemotherapeutic agent, the duration and cumulative dose, and the woman’s age at time of treatment. Menses and ovulation may continue during treatment but this may be reduced or delayed. There is a need to delay childbearing during treatment with targeted therapies or when the targeted therapy is unknown mutagenic effects. Suppression of ovarian function induced by goserelin is permanent cessation of menses and is a treatment option for some pre-menopausal breast cancer patients with hormone receptor positive disease. Oophorectomy may be the preferred method of ovarian suppression for women with a family history of hereditary breast and ovarian cancer.

Early menopause for young women diagnosed with breast cancer is associated with a loss of childbearing capacity and may be accompanied by hot flashes, vaginal dryness, sexual dysfunction, a sense of loss and/or isolation from one’s peers and prolonged exposure to the risks associated with menopause, including cardiovascular disease, osteoporosis, gout, and depression. Psychological distress or severity of disease (eg nodal status, stage) were not significantly related to perceived importance of receiving fertility-related information.

As part of a longitudinal qualitative study of experiences of young women with breast cancer, Connell et al interviewed 13 Australian women at three time phases about their concerns about fertility, contraception, pregnancy and breastfeeding after breast cancer. Perceptions of fertility changed over the course of their cancer experience. Healthcare providers did not adjust their approach to this sample. Contraceptive issues were raised together with recurrence fears related to pregnancy and breastfeeding after breast cancer. Perceptions of fertility changed over the course of their cancer experience. Healthcare providers did not adjust their approach to this sample.

Pregnancy after breast cancer treatment
More women are delaying childbearing for personal, educational or professional reasons and breast cancer in women who are childless is becoming more common. Current evidence suggests that pregnancy following breast cancer does not increase a woman’s risk of developing a recurrence following a diagnosis of early breast cancer, perhaps even conferring a protective effect. Rates of birth defects in the children of women treated for breast cancer are not significantly higher than those in the general population. There are however methodological problems inherent in research on the outcomes of pregnancy among breast cancer patients, most notably, the inability to control for factors such as the self-selection of patients with good prognoses. While a past diagnosis of cancer does not influence most cancer patients’ childbearing aspirations, it does appear to influence childbearing behaviour. It is estimated that in only 3-7% of women become pregnant following a breast cancer diagnosis.

Research into fertility concerns
Psycho-oncology research into the psychosocial aspects of fertility and cancer is in its infancy. To date most of the research has been on understanding patient and health professional attitudes towards information provision, identifying current and preferred methods of fertility and menopause-related information provision, the majority involving samples of breast cancer patients.

A multi-centre Australian study by Thewes and colleagues surveyed 228 young women (aged 40 years or younger at diagnosis) with a diagnosis of early stage breast cancer and the psychosocial and fertility-related information needs of these women. Seventy-one per cent of participants recalled discussing fertility-related issues with a health professional as part of their breast cancer treatment and 86% recalled discussing menopause-related issues. Consultation with a fertility or menopause specialist and a fertility-related treatment decision aid were the most preferred methods of obtaining fertility-related information. Receiving fertility-related information was rated as most important at time of treatment decision-making, but became important again in follow-up care.

Predictors of higher perceived importance of obtaining fertility-related information included a general preference for more information, plans for childbearing at diagnosis and having no children at diagnosis. Interestingly age, psychological distress or severity of disease (eg nodal status, stage) were not significantly related to perceived importance of receiving fertility-related information.

In the US, Duffy and colleagues interviewed 166 pre-menopausal women diagnosed with stage 0-II breast cancer and receiving chemotherapy about their experience of receiving information about the reproductive effects of chemotherapy. Sixty-eight per cent of women recalled receiving information about menopause-related issues and 34% recalled receiving information about fertility-related issues. Predictors of recalling menopause-related discussions were receiving hormonal therapy and having earlier-stage disease. Difficulty communicating with the medical team significantly odds of women recalling menopause-related discussions.

Partridge and colleagues reported the results of a web-based survey of 657 survivors of stage 0-I breast cancer who were members of an internet-based support group. The majority of respondents were self-selecting for their membership and the response rate was 38%. The majority of respondents (63%) were within two years of their diagnosis. Greater concern about fertility issues was significantly associated with a desire for children at time of diagnosis, number of prior pregnancies and prior difficulty conceiving. Twenty-nine per cent of women in this study said that fertility issues influenced their treatment decision-making. 72% of respondents had never discussed fertility issues with their doctors and 17% had seen a fertility specialist. Only half of all respondents (51%) believed that their fertility-related information needs were adequately met. Many women in this sample over-estimated their risk of permanent infertility. Nearly 50% of women aged 30 years or younger believed that they had a greater than 40% chance of entering menopause. Eighteen per cent of respondents said that they did not want any future pregnancies or were unsure if they would consider a future pregnancy. Of those women who were not considering pregnancy and those who were unsure about it, 36% believed that having a child would increase their risk of breast cancer recurrence.

The above research suggests that among young women with breast cancer there are unmet needs for information about fertility-related issues. There are a number of reports describing fertility concerns about risks of becoming menopausal and the influence of pregnancy on recurrence are common. Overall, breast cancer patients report a strong preference for obtaining specialist information from gynaecology and fertility specialists, although only about a third of patients access these services. Gynaecologists have incorporated these specialists into the multidisciplinary team when treating pre-menopausal breast cancer patients. However, they may not have a fertility related information need.

No studies to date have explored health professionals’ attitudes to providing breast cancer patients with fertility-related information, although one study has examined oncologists’ attitudes toward providing male cancer patients with information about sperm-banking. Time spent in consultations with oncologists is often brief and there are competing demands for information provision. Other health professionals, such as nurses, may have a role to play in the delivery of fertility and menopause-related information. However, studies of general nurses’ attitudes towards fertility-related information for cancer patients suggest that while nurses acknowledge the importance of fertility-related concerns, they avoid discussing these topics because of a perceived lack of knowledge, experience and resources. Further work is needed to identify the education needs of all members of the treatment team in this area.

Assisted reproduction following breast cancer treatment
The burgeoning growth of assisted reproductive technologies (ART) and their application to the cancer setting has meant a growing number of fertility preservation methods are available or are on the horizon for cancer patients and increasing numbers of patients are requesting information about them. Currently the most widely available ART to...
women treated for breast cancer is cryopreservation of ovarian tissue and frozen embryo transfer using standard in vitro fertilization (IVF) procedures. This method of fertility preservation requires a committed partner, may delay the start of treatment and is generally not suitable for women with receptor-positive tumours. A number of other options, such as the cryopreservation of oocytes or ovarian tissue are still experimental, are not widely available and have only limited success in terms of pregnancy outcomes.43,53

Beyond aiding fertility, breast cancer treatment may have a negative impact on sexuality and sexual activity.44-46 For some women this can be as important as survival figures when considering treatment options. Although studies have identified the variation in the importance women place on this aspect of quality of life, these studies also highlight that this variation is not influenced by age, menopause status or whether the woman is in a relationship or not. There is, however, initial research suggesting that women with breast cancer who have invested significantly in body image as a source of their sense of self-worth adjust poorly following treatment.47 Women with heightened perceptions of body image factors pertaining to either attractiveness or wholeness are at an increased risk of poor psychosocial adjustment following treatment for breast cancer.48

Access to information on the consequences of treatment on sexual function has been identified as problematic, with women identifying limited or no discussion in this area.49,50 Similarly, both women and health professionals have identified this as a sensitive and difficult area to raise in discussions, with a lack or clarity about the best time for this topic to be raised.51

With the increase in conservative breast surgery and increasing support for reconstructive surgery for women undergoing mastectomy, there can be an assumption that sexuality and body image concerns are being addressed.52,53 While women who experience a breast cancer diagnosis continue to identify this as a neglected area of research and focus in their recovery. Partners’ needs, as well as providing information and support, may differ, and open questions and further research to determine how to best support women in this aspect of quality of life.

Current research and developments for the future

An Australian project is currently underway which aims to compare the efficacy of a fertility-related decision aid to usual care among young women with a diagnosis of early breast cancer. (Person-Centered Decision Aid + Personalized) Another multi-centre Australian project is developing an information tool to improve patient education about the menopausal side-effects of adjuvant therapies for young women with breast cancer. The information tool will be developed in consultation with existing information sources (eg. Australasian Menopause Society, Jean Hailes Foundation, National Health and Medical Research Council). The project requires further research to determine how to best support women in this aspect of quality of life.

A Breast nurse led intervention to provide information and appropriate referral is currently being trialled in two states in Australia. This project, funded by the National Breast Cancer Foundation and conducted by White, Butow, Saunders et al will examine if the intervention leads to improvements in information, improved outcomes related to sexuality and sexual function and earlier referral to specialist services if required. These innovative research projects currently underway in Australia and internationally are likely to play an important role in improving education about fertility preservation methods, sexuality and management of menopausal symptoms. Supportive decision-making to help women balance the survival gains of adjuvant therapies with their childbearing aspirations.

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29. Harvey V. Overall survival from breast cancer in women pregnant or lactating at or after diagnosis. Int J Gynecol Cancer. 1996.6:73-75.
The Effect of Adjuvant Chemotherapy on Cognitive Functioning in Early Breast Cancer: Implications for Outcomes Research and Oncology Practice

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Abstract

Outcomes research is an important focus of public and research policy in Australia. Recent reports of cognitive impairment after chemotherapy for breast cancer have highlighted the emerging importance of cognition as a clinically relevant outcome. To date, most studies have utilised cross-sectional study designs to investigate impairment after treatment. Future research requires a within-group study design that utilises a longitudinal repeated measures approach to identify the nature and magnitude of cognitive change after adjuvant chemotherapy and to evaluate factors that mediate cognitive functioning. The results of within-group studies will also provide the foundations for relevant outcome. To date, most studies have utilised cross-sectional study designs to investigate impairment after treatment. Future research requires a within-group study design that utilises a longitudinal repeated measures approach to identify the nature and magnitude of cognitive change after adjuvant chemotherapy and to evaluate factors that mediate cognitive functioning. The results of within-group studies will also provide the foundations for individual patient assessment, with its focus on the development of tailored behavioural interventions for significantly cognitive states of other animal species, human cognition is characterised by a far more richly diverse interplay of perception, memory and thinking. Furthermore, human cognition displays enormous plasticity throughout life in response to brain development and fluctuations in physical, emotional and social health. The main components of cognition incorporate attention, memory, language, conceptualisation and visuospatial abilities.1 These components in turn comprise a multifaceted array of interlocking domains, each representing a specific cognitive attribute. An additional construct, executive function, describes higher order processes that control and coordinate cognitive operations that are required for normal daily living activities such as planning, organisational capacity, strategic thinking and problem solving.1 The discipline of neuropsychology is devoted to the study of brain – mind relationships and numerous tests have been devised by research neuropsychologists over the past 60 years to investigate cognitive functioning. Cognitive tests can be classified as global, component or construct specific and disorder specific. Ideal tests are characterised by appropriate conceptualisation, robust psychometric properties, the capacity to detect changes over time and valid alternate forms that neutralise the potentially confounding effect of test recollection after repeated administration. The selection of an appropriate testing protocol for a particular clinical setting should take into account the cognitive phenotype of the disease by profiling the cognitive symptoms described by patients. The terms ‘chemobrain’ and ‘chemofog’ are often used by women with breast cancer to describe the effects of adjuvant chemotherapy on memory, concentration and mental agility. In order to fully understand the nature and severity of these symptoms, validated tests capable of reliably detecting change over time should be selected from cognitive domains that target this clinical phenotype. Table 1 summarises examples of symptoms described by women, the domains of cognitive functioning into which these symptoms fit and examples of cognitive tasks that can be selected to test these domains.

Results of adjuvant and chemotherapy studies

Since the first report a decade ago, numerous studies utilising a cross-sectional design have investigated cognitive functioning in women with breast cancer after adjuvant chemotherapy.2-10 In these studies, cognitive functioning was assessed during chemotherapy, at six months after treatment and one to ten years after treatment. The findings were compared with various control groups. The neuropsychological tests varied widely between studies and included a self-report scale of cognition, a self-administered instrument of cognitive functioning and a battery of administered tests to measure impairment.

The neurotoxicity of chemotherapy is well known, but cognitive impairment in the absence of a demonstrable neurological disability has been recognised only recently as an important clinical problem. To date, most of the research literature has reported cognitive functioning in women with early breast cancer who have been treated with adjuvant chemotherapy. This review briefly describes the conceptualisation of cognition and its neurological basis and introduces the necessary results of studies that report cognitive impairment in women after adjuvant chemotherapy for breast cancer. It also evaluates the research agenda required to better understand the nature and extent of cognitive change after chemotherapy and to develop tailored interventions for women diagnosed with cognitive impairment.

Cognition – conceptualisation and measurement

Cognition is a knowledge based process that recognises, stores and retrieves information. In contrast to the numerical scores or indices produced by these tests, the cognitive phenotype is a more holistic description of cognitive dysfunction that takes into account the nature and severity of the symptoms. Cognitive phenotype provides a comprehensive and useful way to assess cognitive outcomes.

Table 1: Cognitive symptoms frequently described after chemotherapy, matching cognitive phenotype and examples of tests to measure impairment

<table>
<thead>
<tr>
<th>SYMPTOMS / TASK IMPAIRMENT</th>
<th>COGNITIVE DOMAIN</th>
<th>EXAMPLES OF MEASURES</th>
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<tbody>
<tr>
<td>Difficulty retaining verbal information (eg. keeping a phone number in mind)</td>
<td>Memory</td>
<td>WMS-III Verbal Memory Scale*</td>
</tr>
<tr>
<td>Difficulty retaining visual information (eg. recalling details of a map)</td>
<td>Visual memory</td>
<td>WMS-III Visual Reproduction*</td>
</tr>
<tr>
<td>Taking longer to process information.</td>
<td>Cognitive processing speed</td>
<td>Stroop Word-Reading and Colour Naming Trials</td>
</tr>
<tr>
<td>Executive functioning</td>
<td>Psychomotor speed</td>
<td>Purdue Pegboard</td>
</tr>
<tr>
<td>Difficulty when required to switch attention between tasks (eg. making dinner and helping children with homework)</td>
<td>Attentional switching</td>
<td>DKEFS Letter-Number Switching*</td>
</tr>
<tr>
<td>Difficulty when required to both recall and manipulate information (eg. maths calculations)</td>
<td>Working memory</td>
<td>COWAT</td>
</tr>
<tr>
<td>Difficulty recalling words quickly.</td>
<td>Verbal fluency</td>
<td>DKEFS Letter-Number Switching*</td>
</tr>
<tr>
<td>Disinhibition – not thinking before talking.</td>
<td>Inhibition of interference</td>
<td>TEA Visual Elevator*</td>
</tr>
<tr>
<td>Not being able to do more than one thing at a time.</td>
<td>Multitasking (dual task)</td>
<td>TEA Telephone Search While Counting</td>
</tr>
<tr>
<td>Not being able to identify appropriate strategies for new tasks</td>
<td>Complex reasoning/planning</td>
<td>DKEFS Card Sort Test</td>
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*RAVLT: Rey Auditory Verbal Learning Test; WMS-III: Wechsler Memory Scale; WAS-III: Wechsler Adult Intelligence Scale; SCOPL: Speed and Capacity of Language Processing Test; DKEFS: Letter-Number Switching; TEA: Visual Elevator; COWAT: Controlled Oral Word Association Test
these constructs and cognitive functioning. Findings from scale, dimensional studies, indicated that treatment groups performed more poorly than control groups in at least some areas of cognitive functioning. While between-group analyses failed to identify significant differences in many cognitive tasks, women in treatment groups were more likely to be impaired on memory, attention, processing speed and motor tasks than control groups.14

Three studies have utilised a longitudinal design, two with chemotherapy treatment and one with a first study after commencement of adjuvant chemotherapy. In one study, cognitive functioning was assessed in 18 patients before commencement of chemotherapy, three to four weeks after chemotherapy and 12 months after chemotherapy.15 A large battery of neuropsychological tests was administered taking several hours to complete, assessed attention, processing speed, learning, memory, executive functioning, visuospatial processing and motor skills. Participants also completed self-report scales of anxiety and depression and quality of life. This study reported that 61% of patients experienced a decrease in cognitive functioning relative to baseline in one or more domains immediately after chemotherapy, with 45% of those patients showing improvement at 12 months post-chemotherapy. Importantly, 35% of patients exhibited cognitive impairment before commencement of chemotherapy. The second study with baseline measurements available for reporting was of 50 women undergoing adjuvant chemotherapy for early breast cancer.16 Cognitive battery of neuropsychological tests evaluated verbal and visual memory, working memory, processing speed and executive functioning. In contrast, a third cross-sectional chemotherapy treatment patients had a measurable cognitive decline, especially in tasks of verbal and working memory. In the third study, cognitive functioning was assessed using a global screening tool in 100 women undergoing chemotherapy and in a patient nominated, age matched control group.17 The results indicated that patients were more likely to show cognitive impairment at the time of completion of chemotherapy than the control group, but there was a subsequent trend towards recovery.

The recently recognised effect of chemotherapy on cognitive functioning has stimulated numerous reviews, a meta-analysis and a workshop to summarise results to date and recommend future directions for research. A meta-analysis of 29 studies identified three basic research methods that compared post-treatment performances to normative data, control groups, or baseline assessments.18 In comparison with normative data and control groups, chemotherapy treated groups exhibited consistent reductions of task performance in the domains of verbal memory, motor function and executive functioning. The findings from the workshop recognised that even small changes in some areas of cognitive functioning such as attention and executive functioning, could be associated with reductions in the ability to function effectively in work, home and family/social environments.19 Recommendations from the meta-analysis and workshop place a greater emphasis on the development of longitudinal studies with larger samples and pre-treatment assessments to better understand the use, degree and duration of cognitive changes after chemotherapy.

Interpretation of results and future directions

Although the results of published studies are proof of principle that adjuvant chemotherapies are associated with altered cognitive functioning, significant conceptual and methodological gaps separate the notion of a measurable change and the management of a clinically relevant impairment. For example, what does the term ‘cognitive dysfunction’ mean and how is it diagnosed and managed? What is the appropriate structure of future clinical studies to investigate causality and which cognitive test should be used? The results of published studies to date provide only limited insights into these issues. Partnership with the mature and expanding discipline of neuropsychology is required to understand gaps in knowledge and to establish an appropriate assessment/treatment model.

The selection of appropriate cognitive tasks is a crucial requirement to assess and treat clinically relevant deficits. Global cognitive measures have the advantage of ease of administration, but are less likely to detect changes over time in a domain that might be specifically relevant to a particular disease or group of patients. However, these tests are unlikely to be sensitive to specific domains. To date, no domain specific test has been devised that addresses all aspects of that domain. At the same time, however, the need to be sensitive frequently cross into other domains. Considerable expertise is therefore required in the interpretation of tests that apply different cognitive domains to daily living. While self-administered tests have the hallmark of research in psycho-oncology, investigation of specific domains of cognitive functioning requires administration and interpretation of tests by board registered neuropsychologists.

Advances in study design are also required in order to provide more detailed information about factors that mediate cognitive functioning or confound the interpretation of results. While inter-group comparisons provide a snapshot of a population, intra-group comparisons are required to identify factors that both influence cognitive performance and confound the interpretation of results. For example, baseline and follow-up assessments not only provide additional information about the nature and magnitude of change, but also assess factors that influence task performance (eg. psychotropic medication, change of ovarian function after chemotherapy, use of endocrine treatments). Furthermore, within-subject studies provide intra-individual data that provide the basis for diagnosing and managing cognitive impairment. Thus the term ‘cognitive dysfunction’ describes the potential to positively influence the psychosocial as well as physical and functional status of patients with cancer is exercise. Increasing scientific evidence is available to support that participating in exercise during and following treatment for cancer, in particular breast cancer, is associated with improvements in psychosocial and physical outcomes. Although the exercise prescriptive characteristics have differed between investigations, the general recommended exercise prescription is of moderate-intensity, regular frequency (3-5 times/week) for 20-30 minutes per session. To ensure translation of research knowledge into clinical practice, future research...
Cancer has become a leading cause of morbidity and mortality. While overall cancer mortality has declined, it is estimated to be responsible each year for about 261,000 years of life lost before the age of 75 years, survival prospects are not always favorable. Females have higher survival rates than males, with five-year relative survival rates being 63.4% and 56.8%, respectively. For some of the more common forms of cancer, five-year survival prospects are even higher: melanoma, >94%; breast, >84%; prostate, >82%. Unfortunately, many of these are unlikely to address the symptom burden associated with cancer. Fatigue and lymphoedema merit special attention, as these are cancer symptoms that have previously been down-regulated, a detrimental cycle of diminished activity, fear of exacerbating this condition the likely reason. It is now understood that exercise does not exacerbate fatigue. It is also known that encouragement to participate in a progressive exercise program would likely beneficial to the patient. As for lymphoedema, evidence is accumulating demonstrating that participation in an exercise program does not increase lymphoedema risk or exacerbate the condition if already present. Restricting the involvement in exercise of cancer survivors with secondary lymphoedema may limit their opportunity to participate in a potential rehabilitative strategy that could lead to significant changes in their physical and psychosocial well-being.

Importantly, among exercise interventions tested, now totalizing more than 1000 patients diagnosed with various cancers and involving various treatment regimes, no major adverse events linked to exercise have been reported. There is sufficient evidence to support the notion that exercise is a safe, feasible and effective QoL intervention following cancer diagnosis.

Enhancing benefit and minimising risk
It is also important to clarify that exercise is ‘safe’ when being prescribed by appropriately qualified health professionals in collaboration with treating specialists.

Exercise prescription recommendations
Table 1 presents the exercise prescription guidelines for early-stage cancer patients and cancer survivors. This table has been taken from a review by Courneya et al. published in 2000. Despite more work in the field since this was published, it continues to represent appropriate exercise prescription guidelines, with the

QoL intervention for cancer patients and survivors. What follows is a summary of this work.
Table 1: Exercise prescription guidelines for early-stage cancer patients and cancer survivors

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Recommendation and comment</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Mode</strong></td>
<td>Most exercise involving large muscle groups is appropriate, but walking and cycling are especially recommended because they are safe and tolerable for patients. Exercises are modified based on acute or chronic treatment effects from surgery, chemotherapy and/or radiation therapy.</td>
</tr>
<tr>
<td><strong>Frequency</strong></td>
<td>At least 3-5xwk, but daily exercise may be preferable for deconditioned patients who do light intensity and short duration exercises.</td>
</tr>
<tr>
<td><strong>Intensity</strong></td>
<td>Moderate, depending on current fitness level and medical treatments. Guidelines recommend 50-75% VO2 max. HRmax = 60-80% HR, or an RPE of 11-14. HRmax is the best guideline if HRmax is estimated rather than measured.</td>
</tr>
<tr>
<td><strong>Duration</strong></td>
<td>At least 20-30 minutes continuous exercise; deconditioned patients or those experiencing severe side effects of treatment may need to combine short bouts (e.g. 3-5 minutes) with rest intervals.</td>
</tr>
<tr>
<td><strong>Progression</strong></td>
<td>Patients should meet frequency and duration goals before they increase intensity. Progression should be slower and more gradual for deconditioned patients or those who are experiencing severe side effects of treatment.</td>
</tr>
</tbody>
</table>

*HRmax* — maximal heart rate (HRmax) minus standing resting heart rate (HRrest). Multiply HRrest by 0.60 and 0.80. Add each of these values to HRrest, to obtain the target HR range. HRmax can be estimated as 220 minus age (years).

*HRrest* = heart rate; *RPE* = rating of perceived exertion; *VO2 max* = maximal oxygen uptake.

Table 3 page 68 reproduced, with permission, from Courneya KS, Mackey JR, Jones LW. Coping with cancer: can exercise help? [Phys Sportsmed 2000;28(5):49-73 Vendome Group LLC.]

possible exception of being too restrictive for mode. As indicated earlier, only recently has resistance exercise been included in exercise interventions under study. This is relatively surprising since a known role of resistance exercise is to increase muscle mass and to improve muscular endurance and/or attenuate muscle-wasting associated with various conditions, such as cancer. While there is much to be learned about the role of this exercise mode in cancer care and rehabilitation, preliminary evidence suggests that resistance training alone or in combination with aerobic-based exercise has the potential to reduce fatigue and improve QoL. Resistance exercise interventions tested have been of moderate intensity using large-muscle group exercises (e.g. chest press, leg press); two sets, 8-12 repetitions of 60-70% of one repetition maximum or one set to failure between 15-20 repetitions progressing to 8-12 repetitions.

Future work needs to push the boundaries of this exercise prescription, so that we can begin to develop a better understanding of what constitutes optimal, desirable and necessary frequency, duration, intensities and type, and whether these levels are dependent on characteristics of the individual (e.g. age, cancer type, treatment).

Translating evidence into clinical practice

Despite the high prevalence of physical and psychosocial impacts among cancer survivors, as well as the recognition of exercise as an essential component of cancer care, exercise rehabilitation does not yet form part of standard care. If patients have the inclination and knowledge, they may access resources within the community to assist in their rehabilitation. There are some limitations, with more options currently available for breast cancer survivors. On a national front, Cancer Councils around Australia provide counselling services, information, support services and offer a ‘living with cancer’ education program. The WCA’s Encore program is also available for women with breast cancer, and some hospitals may provide their own rehabilitative programs, such as the STRETCH or the domiciliary allied health acute care and rehabilitation service (DAAR) programs for women undertaking breast cancer treatment. However, of the programs available for cancer survivors in Australia, few encompass components that address both the psychological as well as functional concerns. Of those that do include some form of exercise, the prescription characteristics are likely to fall below what current research recommends and to focus on specific areas only rather than embracing a whole-body approach. For example, exercise programs tend to occur once per week and to emphasize light intensities or to target shoulder and arm function. For those patients who have adequate financial resources, the services of an accredited exercise physiologist could be used to assist in their physical rehabilitation efforts (Medicare rebates are now available for payment of these services). However, clearly this option is not an appropriate public health solution.

Conclusion

The quality of research on exercise and cancer varies, with few rigorous randomised control trials being completed. Deficiencies in research design and reporting the notation that patients during and after cancer treatment need to ‘take it easy and rest’ and yet at the same time avoid ethical implications of only providing a potential effective rehabilitative strategy to some participants, contribute to the flaws in study designs. However, other contributing factors include lack of control and measuring adherence, lack of quantification for pre-intervention activity levels, poor data collection of potential confounders and failure to use an intention-to-treat analysis. Cancer includes over 100 types and treatment strategies offer a variety of选项. However, from breast cancer types, also contributing to the inconsistencies observed across exercise and cancer studies. Generally speaking, the quality of work in this area has gradually improved over the years. More rigorous randomised control trials that are well described, involving larger sample sizes and population-based samples are required to continue to advance our understanding in this research area and to determine how we can best assist cancer survivors to become active and maintain this status for a longer period of time. Future work must address the feasibility and acceptability of various exercise programs from the perspective of the survivor as well as the medical professional. That is, how can exercise programs be feasibly integrated into the routine clinical care of people with cancer, for the purpose of minimising the impact of cancer, treatment, restoring QoL following treatment and preventing recurrence and other chronic disease.

References

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Cancer patients experience a range of challenges that can encompass: psychological distress; difficulties communicating with health providers, family and friends; obtaining the required health information; physical changes in body functioning and appearance; sexual dysfunction; and disruption to family functioning and occupation.1 These challenges are exacerbated as the disease progresses.4 Moreover, there can be vast variations in the prognosis of individuals with advanced disease.3 Indeed, uncertainty about the time between different disease types can vary from expectation of years, such as for locally advanced prostate cancer, to an expectation of a few months, such as for metastasised small cell lung cancer. These factors have implications for the types of psychosocial or supportive care interventions that will be effective in ameliorating suffering. This paper describes the impact of advanced cancer on the person and the issues associated with advanced disease. This paper discusses the psychosocial issues associated with advanced cancer, the challenges inherent in conducting research with advanced cancer,12 there have been no empirical studies evaluating ways of communicating ‘bad news’ to patients with advanced disease.

Impact on physical functioning and quality of life

Physical functioning, emotional functioning and general QoL are all intimately connected. Fatigue in advanced disease is the most common symptom and the most challenging to manage.9 Indeed, dealing with a lack of energy and tiredness is rated by patients with advanced cancer as their top unmet need.9 Severe fatigue has been associated with higher levels of depression and increased pain.9 Effective management options are limited, however there is evidence that exercise programs can reduce cancer-related fatigue in patients with early cancer.11 Pain, both neuropathic and nociceptive, is critical to control. It is arguably a more important symptom than fatigue because it can be debilitating and is likely to lead to loss of activity, which in turn exacerbates fatigue. Patients also see pain as a sign of advancing disease and this contributes to psychological symptoms of fear, depression and anxiety.9 Dyspnoea is also highly prevalent among those with advanced cancer, especially lung cancer.10 It is a highly distressing symptom, which restricts all activity and causes anxiety, panic, depression and fear of impending death.10 Nausea, vomiting and constipation are often poorly controlled and can also adversely affect a patient’s QoL.10 Optimising QoL is not only an important outcome in itself, but it is also associated with longer survival and lower levels of depression among patients with advanced cancer.7,8 These studies highlight the importance of controlling symptoms, especially fatigue and pain, how many researchers experience difficulties performing these activities.7,8

Impact on physical functioning and quality of life

Impact on family functioning

Many people with advanced cancer experience guilt as a result of the burden they perceive being placed on their caregivers.11 Family physical and emotional distress increases as the cancer advances, peaking during the terminal phase of the illness.12 Children of parents with advanced cancer experience significant psychological distress, particularly adolescent daughters of ill mothers, and parents may not be aware of this distress.12,13 Given the impact advanced illness has on family functioning, it has been recommended that the patient and their family be recognised as the ‘unit of care’.14 Carers of people with advanced disease also have significant unmet informational needs and experience high levels of distress.15 Australian palliative care services are predominantly community-based, family caregivers are required to assess and monitor the patients’ needs and then deliver the required therapeutic intervention for symptom control at home.16 Pain management can be challenging, and family and other caregivers experience difficulties performing these activities.16

Impact on physical functioning and quality of life

Impact on family functioning

Existential issues

A person with incurable cancer is likely to face important existential questions related to the meaning of life and the prospect of facing death.17 Uncertainty about the future was described as an unmet need by a majority of women (61%) with advanced breast cancer.18 These existential concerns can cover a range of issues including isolation, loss of control, fear of others, uncompleted life tasks, hope, hopelessness and preparation for death.19 Using the construct of demoralisation syndrome, Kissane and colleagues20 have attempted to incorporate the idea of existential distress into palliative care. They argue that the concept of demoralisation provides clinicians with a framework for identifying the deep emotional pain and existential distress that accompanies loss of hope and social isolation in the terminal illness.

Recently, a dignity therapy intervention designed to improve psychosocial and existential distress among terminally ill patients was evaluated using a pre/post design.21 Post-intervention data indicated reductions in suffering and depression among participants. Despite a short follow-up, only 7-10 days after baseline, there was a 22% dropout rate, primarily due to death or deterioration. This illustrates one of the many difficulties with conducting psychosocial research with people with advanced disease.

Conducting psychosocial research in the advanced cancer setting

In order to address the psychosocial issues facing people with advanced cancer and their significant others, we need a repertoire of effective interventions that have been demonstrated to improve patient outcomes in the clinical setting. Hence, it is imperative that targeted, rigorous research is conducted. The highest level evidence for the effectiveness of an intervention is a series of well-conducted randomised control trials.22 However, very few randomised control trials are conducted in the advanced cancer setting.23 The primary reason is most likely the difficulties encountered in forming a randomised trial with this population. The most serious difficulty is patient outcomes and attrition rates. The pool of potential recruits may be smaller than anticipated because: patients may fail to meet eligibility criteria because they are judged to be unable to complete the study requirements due to low performance status; cognitive dysfunction resulting from brain metastases or treatment side-effects; or poor prognosis. Further impacting on recruitment rates, there is a comparatively higher refusal rate by eligible patients and greater professional gate-keeping of access to patients because advanced cancer frequently makes people feel unwell or distressed.24 With randomised control studies, issues may arise for the treatment team about withholding supportive interventions that may be reasonably expected to benefit patients who have a shortened life expectancy.25 Moreover, higher refusal rates increase the probability of sample bias.
that can limit the generalisation of the findings. Some of the difficulties can be addressed by: broadening the inclusion criteria; conducting bias analyses; working closely with the treatment team to reduce gate-keeping; and, where possible, ensuring that the study is kept to a minimum, for example, by reducing the length of the questionnaire.

The high level of attrition results from the unpredictable health of people with advanced cancer who can quickly become too sick to complete the study requirements, or have limited time left. As researchers, we need to recognise that this challenge and not subscribe to the excuses that are proffered to avoid working with this worthy group.

Acknowledgements

The literature review that formed part of this paper was funded by the National Breast Cancer Centre, Australia.

Thank you Anna Ugale for assistance with references.

References

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Participant engagement in the intervention as specified by the protocol is another problem. Fluctuating health may mean that they do not receive the intervention or receive only part of it. Conducting ‘intention to treat’ analysis as recommended by the CONSORT criteria for randomised control trials means that if a sizeable analysis as recommended by the CONSORT criteria or receive only part of it. Conducting ‘intention to treat’ analysis as recommended by the CONSORT criteria or receive only part of it. Conducting ‘intention to treat’ analysis as recommended by the CONSORT criteria or receive only part of it. Conducting ‘intention to treat’ analysis as recommended by the CONSORT criteria or receive only part of it. Conducting ‘intention to treat’ analysis as recommended by the CONSORT criteria or receive only part of it. Conducting ‘intention to treat’ analysis as recommended by the CONSORT criteria or receive only part of it. Conducting ‘intention to treat’ analysis as recommended by the CONSORT criteria or receive only part of it. Conducting ‘intention to treat’ analysis as recommended by the CONSORT criteria or receive only part of it. Conducting ‘intention to treat’ analysis as recommended by the CONSORT criteria or receive only part of it. Conducting ‘intention to treat’ analysis as recommended by the CONSORT criteria or receive only part of it. Conducting ‘intention to treat’ analysis as recommended by the CONSORT criteria or receive only part of it. Conducting ‘intention to treat’ analysis as recommended by the CONSORT criteria or receive only part of it. Conducting ‘intention to treat’ analysis as recommended by the CONSORT criteria or receive only part of it. Conducting ‘intention to treat’ analysis as recommended by the CONSORT criteria or receive only part of it. Conducting ‘intention to treat’ analysis as recommended by the CONSORT criteria or receive only part of it. Conducting ‘intention to treat’ analysis as recommended by the CONSORT criteria or receive only part of it. Conducting ‘intention to treat’ analysis as recommended by the CONSORT criteria or receive only part of it. Conducting ‘intention to treat’ analysis as recommended by the CONSORT criteria or receive only part of it. Conducting ‘intention to treat’ analysis as recommended by the CONSORT criteria or receive only part of it. Conducting ‘intention to treat’ analysis as recommended by the CONSORT criteria or receive only part of it. Conducting ‘intention to treat’ analysis as recommended by the CONSORT criteria or receive only part of it. Conducting ‘intention to treat’ analysis as recommended by the CONSORT criteria or receive only part of it. Conducting ‘intention to treat’ analysis as recommended by the CONSORT criteria or receive only part of it. Conducting ‘intention to treat’ analysis as recommended by the CONSORT criteria or receive only part of it. Conducting ‘intention to treat’ analysis as recommended by the CONSORT criteria or receive only part of it. Conducting ‘intention to treat’ analysis as recommended by the CONSORT criteria or receive only part of it. Conducting ‘intention to treat’ analysis as recommended by the CONSORT criteria or receive only part of it. Conducting ‘intention to treat’ analysis as recommended by the CONSORT criteria or receive only part of it. Conducting ‘intention to treat’ analysis as recommended by the CONSORT criteria or receive only part of it. Conducting ‘intent...
people needing care increases, there will be a lesser increase in the potential caregivers due to population ageing. Older age groups contribute more to the disabled population than they do to caregiver populations, with the ratio of primary caregivers to older people in the urbanized areas of the community. Inadequate supply of primary caregivers is a common reaction. Not only are caregivers confronted with the fear of a potentially life-threatening illness, the common reactions.13,18 Although many caregivers derive deep satisfaction and positive about caring,14 feelings of sadness, 13,18 distress and strain if they are female, younger,25 or are in lower paid jobs or work from home to manage caregiver satisfaction and expression of emotions and expectations of love. Post-bereavement, caregivers report being proud and pleased and satisfied that they had managed the care giving role.12 Happiness over quality time spent with the patient, the ability to explore and resolve issues and feelings of value and self-worth have all been reported by caregivers.12,19 It is suggested that caring for the patient may help caregivers to accept the death and work through their grief.12

Caregivers’ information needs

Lack of adequate information is reported as one of the most important concerns of caregivers of patients with advanced cancer.26 In the next 30 years.8 Thus, there may need the caregiver or other family members to know the prognosis to the patient or the patient does not want the caregiver or other family members to know about the prognosis.6 Caregivers are often reluctant to disclose their needs to health professionals, for reasons including not wanting to put their needs before those of the patient, uncertainty about the best way to discuss needs, fear of being a caregiver and believing that concerns and distress are important target group for further research to better understand how their needs change over the course of the patient’s illness and to streamline their access to available services that may assist in addressing identified needs. In a review of cancer care literature specific to caregiver interventions, Pasacreta and McCorl observed that research on evidence-based interventions aimed at caregivers. Considering the lack of positive findings in some of the studies reviewed, the authors concluded that an important direction for research was identifying caregiver interventions that were at risk of having problems in specific areas and tailoring interventions to their special needs.11

Harding and Higginson also lamented the lack of outcome evaluations in the literature and the lack of evidence to ensure cost-effective allocation of resources. The authors argued that, in light of the methodological and ethical issues of randomised clinical trials of caregiver interventions in cancer and palliative care, other experimental designs might be more feasible and should be considered.24

Landmark Australian studies are currently underway that will improve our understanding of the psychosocial needs of partners and caregivers of cancer survivors over the course of the illness.28 The For the Health & Psycho-oncology (CHRP), of The Cancer Council NSW and University of Newcastle, is undertaking a large longitudinal study of the partners and caregivers of recently diagnosed cancer survivors from NSW and Victoria who are recruited to the Cancer Survival Study. The Partners and Caregivers Study, which has recently commenced recruitment, will: a) describe changes in the levels of anxiety, depression, quality of life and unmet needs reported by partners/caregivers of cancer survivors over the first five years since the cancer diagnosis; b) identify the partner/caregiver factors associated with these outcomes including: coping style and demographic and financial characteristics; c) describe the relationships between cancer survivors’ and partner/caregiver psychosocial and other health outcomes; d) assess the costs associated with living with or caring for a person with cancer; and e) identify the partner/caregiver predictors of prolonged bereavement following the death of the cancer survivor-pair. Researchers from the Medical Psychology Research Forum

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Unit, University of Sydney and the Queensland Institute of Medical Research are undertaking the Australian Ovarian Cancer Study (AOCS) Quality of Life Study, collecting information on quality of life, psychological distress, social support, coping style and unmet needs for women with ovarian cancer and their partners/carers, with access to medical and demographic information from the AOCS. This study will: a) track variations in quality of life and psychological distress over two years; b) examine the role of psychological distress, social support and coping style in predicting outcomes, in terms of quality of life, recurrence, and survival; and c) determine whether services are currently meeting the needs of women and their carers.

Palliative care services have been demonstrated to benefit not only the patients but also the families and the bereaved.11,12 A South Australian population study has found that caregivers who reach out for support, especially for day-to-day care, have fewer unmet needs and are much more likely to move on with their life in the first 6-12 months after their loss than caregivers who do not reach out to services.13 While health professionals are ideally placed to provide information and proactively assess the need for referral to SPCs, Australian research has shown that referral to SPCs is often late or does not occur at all. Furthermore, some sub-groups consistently under-utilise SPCs, including those of lower socio-economic status, the elderly and people of Aboriginal and Torres Strait Islander backgrounds.14,15 There is also a focus on physical symptoms and prognosis as the main triggers for referral to SPCs, at the exclusion of psychosocial and caregiver needs. To improve needs-based access to palliative care, the Australian Government Department of Health and Ageing has funded a national team headed by CheRP to undertake research into palliative care referral. Part of that work is to develop SPCs Referral Guidelines and a Palliative Care Needs Assessment Tool (PC-NAT), by patients. Strategies have been undertaken nationally to promote adoption of best practice recommendations across Australia has taken an international lead in recognition of the importance of psychosocial care for cancer patients and care at home. Needs based access to existing services, including SPCs, also needs to be encouraged and facilitated to help caregivers in their important role.

Conclusions
Care giving is associated with a significant negative impact on the physical, mental and financial aspects of caregivers’ lives. Increased assistance to caregivers must ensure that they have the knowledge, skills, income security, job protection and other supports to provide care, while maintaining their own health and well-being throughout the dying and grieving process. This is particularly important in light of the predicted shortfall in the number in caregivers and especially workers in the delivery of unfamiliar complex care as caregivers are increasingly replacing skilled health care professionals.

References
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The diagnosis and treatment of cancer is associated with significant emotional morbidity.1 Research indicates that cancer patients experience elevated levels of depression and anxiety.2 Although the psychological consequences of cancer are significant, they frequently go undetected and untreated.3 Australia has taken a leadership role in promoting the importance of psychosocial issues for cancer patients and in many areas has established world-first best practice recommendations.

Australian initiatives
In recognition of the importance of psychosocial issues, the National Breast Cancer Centre (NBCC) launched the Psychosocial Clinical Practice Guidelines: information, support and counselling for women with breast cancer in 2000.4 These guidelines provided the first comprehensive overview of the emotional impact of breast cancer and included evidence-based recommendations about the provision of optional psychosocial care.

Many of the psychosocial concerns of women with breast cancer are also key issues for adults with other cancers. Hence, the NBCC and the National Cancer Control Initiative (NCCI) developed the Clinical practice guidelines for the psychosocial care of adults with breast cancer5 which were launched by the then Federal Health Minister Kay Patterson in August 2003.
on the NBCC’s guidelines for psychosocial care of women with breast cancer, the generic psychosocial care guidelines were funded by the Australian Government Department of Health and Ageing (DoHA). Both sets of National Breast Cancer Centre (NBCC) approved guidelines were developed by multidisciplinary working groups, with consumer involvement, based on the best available evidence. The implementation and dissemination of these guidelines has been supported and benefited from the NHMRC’s recommended public consultation process and independent review.

Clinical practice guidelines for the psychosocial care of adults with cancer within the context of their care and in their kind of the world to describe the emotional, psychological and practical impacts of Australia’s leading forms of cancer including breast, colorectal, melanoma, lung, non-Hodgkin’s, prostate, gynecological and non-Hodgkin’s lymphoma. Pancreatic and head and neck cancers were also included given the high morbidity and mortality of these cancers and the high morbidity to head and neck cancer.

Typically, best practice recommendations focus on the diagnostic or treatment aspects of care. It is recognised that the psychosocial guidelines would be of practical value, summarise key research and include evidence-based recommendations to assist health professionals who deal with cancer patients from diagnosis through treatment and palliative care. The importance of uptake of these recommendations is emphasised by the fact that a national and international body of high level evidence about beneficial psychosocial interventions than there is for many traditional aspects of care management in oncology.

The guidelines provide information about how to improve psychosocial outcomes using techniques to increase patient recall and understanding, prepare patients for potentially distressing events and provide early identification of patients at risk of psychosocial distress. They also include cognitively behaviours techniques to decrease anxiety, distress and reduce symptom burden (e.g. pain control) and discuss the management of depression through combined therapies including supporting patients and friends and family members to acknowledge their international significance. Several countries have requested permission to use them in their own local programs to encourage improvement in psychosocial care.

Promoting awareness and uptake of best practice

Clinical practice guidelines for the psychosocial care of adults with cancer were developed by the National Breast Cancer Centre (NBCC) to promote awareness and uptake of best clinical practice guidelines for the psychosocial care of adults with cancer. Given the size of the guidelines it was seen as unrealistic to expect all clinicians involved in cancer care to read these guidelines in their entirety. In addition to the interactive educational workshops, health professionals were also asked to rate the usefulness, relevance, layout, readability and content of the guidelines and the feedback was immediately post workshop and three months post workshop. Familiarity with the guidelines improved significantly for many traditional aspects of care management in oncology.

In addition to the interactive educational workshops, health professionals who participated in these workshops were also asked to rate the usefulness, relevance, layout, readability and content of the guidelines and the feedback was immediately post workshop and three months post workshop. Familiarity with the guidelines improved significantly for many traditional aspects of care management in oncology.

Evaluation of the health professional summary card was undertaken by self-report questionnaire distributed with the August 2005 edition of Marryat’s, the COSA newsletter. Increased familiarity with psychosocial issues, knowledge of psychosocial risk factors, treatment, referral for psychosocial care and that guidelines in relation to cancer were reported as a result of reading the summary card. Confidence in the ability to identify distress, communication of distress and the service was increased. The majority of respondents rated usefulness, relevance, layout, readability and content of the guidelines as being high for most of the group.

A further application has been made to DoHA for funding of a consumer and rural and remote strategy, to implement the guidelines. At present other funding options are being considered.

Additional strategies to promote psychosocial care

Psychosocial care was considered an integral component of the national multidisciplinary care demonstration project conducted by the NHMRC. The project represented the first implementation of the model of psychosocial care in an oncology setting.

In late 2004, a nationwide series of interactive educational workshops was conducted to promote the guidelines. These workshops were undertaken in New South Wales, the Northern Territory, Queensland, South Australia, Tasmania and Western Australia. Over 300 clinical and allied health professionals attended the workshops. The primary audience was medical specialists, such as medical oncologists and surgeons. They focused on education relating to the psychosocial issues facing people with cancer, communication of psychosocial issues, to improve knowledge about effective interventions; and to assist in the provision of psychosocial care. The NBCC has promoted the evidence of benefit gained from a study which assessed the impact of the guidelines on psychosocial care.

In addition to the interactive educational workshops, health professionals also reported that coordination of care and provision of support to younger patients can in turn experience elevated distress. The guidelines also recognise that clinicians managing younger women will need to offer psychosocial care. The need to integrate conventional patient management with psychosocial care is clearly illustrated in the NBCC Clinical practice guidelines for the management of breast cancer. The guidelines follow the patient journey from pre-diagnosis (risk factors and detection), through diagnosis and treatment, to transition to palliative care. At each stage of the journey the psychosocial aspects are also addressed. For example, information about systemic adjuvant therapy for younger women is accompanied by information about younger women experiencing poorer adjustment than older women and recommendations about advising younger women about the consequences of therapy for fertility.

The guidelines also recognise that clinicians managing younger patients can in turn experience elevated levels of stress. Research indicates that doctors often distance themselves in this situation and the guidelines recommend participation in communication skills training to assist with knowing how to respond to specific patient needs. The NBCC will be holding training workshops in 2006 specifically aimed at helping health professionals communicate with younger patients.

Where to from here?
There is still some way to go before we have a truly comprehensive multidisciplinary approach to cancer care. Although this approach is already undertaken by a number of the larger cancer centres and specialist clinics across the country, in many places psychosocial care is still considered an “afterthought” or optional extra “time permitting”. Given the major burden these issues represent – with up to 30% of cancer patients experiencing clinically significant anxiety disorders and up to 35% experiencing depression,1 and that patient satisfaction with their care is improved when supportive care issues are addressed, it would appear timely to consider active approaches to integrating all aspects of care.

As a new initiative the NBCC is currently developing a tool to encourage the consideration of psychosocial issues at multidisciplinary treatment planning meetings for cancer patients. The tool will provide a checklist to promote discussion during the meeting of factors highlighted in the psychosocial guidelines as putting patients at increased risk of psychosocial problems (eg. young age, advanced disease). The tool also aims to encourage appropriate referral of patients considered at high risk of adverse psychosocial outcomes.

Currently, we know very little about the national state of psychosocial care for Australian cancer patients. There has been considerable focus in recent years on minimising clinical data gaps and clinical audits, but these data collections typically fail to include items reflecting significant psychosocial aspects of patient care. In recognition of this gap, the NBCC is developing a limited number of generic psychosocial items that could be included nationally in clinical data sets to benchmark and monitor the number of generic psychosocial items that could be included nationally in clinical data sets to benchmark and monitor the.

There is also a growing interest in the interdisciplinary training of clinicians to better reflect the work environment of many health professionals. Although we are already witnessing this approach in some undergraduate courses, it rarely occurs in continuing professional development programmes. There are opportunities in the ongoing education of cancer care professionals to consider integrated training packages, particularly in aspects of psychosocial care crucial to all stages of the patient journey.

References

Abstract
Clinical practice guidelines for the management of psychosocial distress in people with cancer have been produced in Australia and North America and these provide a framework for the provision of psychosocial care for patients with cancer and their families. However, psychosocial care is not yet a routine part of oncology care and within the psychosocial literature there is little practical advice about the best way to achieve this. This article describes a community-based approach to this challenge that builds on existing resources and responds to the concerns of those working in the field. It is proposed that this approach provides a way forward in translating evidence-based psychosocial care guidelines into action.

Figure 1: Tired Model of Psychosocial Care in Oncology

The diagnosis and subsequent treatment of cancer is a major life stress that is followed by a range of well described psychological, social, physical and spiritual difficulties.1 For patients and families, personal experience of cancer can be seen as a series of stressful events as the person moves through the illness continuum from diagnosis, to treatment and rehabilitation or palliation.2 Responsive and well targeted psychosocial care is essential to assist people coping with cancer and their families to successfully negotiate and manage these events and to be well prepared and supported for any future health threats. Thus, psychosocial care services need to be responsive across the illness experience and accessible beyond the acute treatment setting.

In response to the increasing recognition of psychosocial care as an integral part of best practice oncology care, various groups in North America and Australia have developed clinical practice guidelines for such care.3 While these guidelines are an important step in placing the issue of psychosocial care clearly on the clinical agenda, a number of challenges remain to the implementation of such guidelines, not the least of which is a lack of awareness of the existence of the guidelines among health professionals. A number of explanations have been proposed to explain the lack of integration of psychosocial services into routine care for patients with cancer. First, clinicians tend to overlook patients’ psychosocial needs, such that many distressed patients remain unidentified, with few, referred for counselling or support.4 5 6 Second, patients’ desire for support has been found to not correlate to their levels of psychological distress.7 8 Thus, relying on patients to self-refer is likely to leave many high distress patients unidentified and unassisted. Third, psycho-oncology is often under-funded within the acute health care system and this further limits patients’ access.9 Fourth, the move to outpatient care where possibility means that patients’ interactions with the acute health care system may be more intermittent and less time limited; thus potentially limiting opportunities to gain support within this setting.

In this regard, community-based organisations provide an ideal setting for the dissemination of evidence based practices through the integration of practice experience with science.10 Accordingly, to address the question of how to best integrate support services in a manner consistent with evidence-based guidelines for psychosocial care we adopted a two pronged approach. First, a triage and stepped care model was developed to provide a systematic method of assessing and referring cancer patients and family members to appropriate psychosocial care services.11 12 Importantly this model was implemented on an existing highly successful Cancer Helpline information and support service providing for broad access and community impact. Second, a training package was developed for health professionals that integrated the National Health and Medical Research Council (NHMRC) Clinical Practice Guidelines for the Psychosocial Care of Adults with Cancer (2003) with a stepped care approach.

Step 1: Tired care for people coping with cancer: Queensland Cancer Fund tiered model

Although cancer is a major life stress, over time most people diagnosed with cancer adjust effectively to their changed life circumstances without clinical intervention. However, a significant group (as many as one third) experience heightened distress that persists or even worsens over time.13 As well, many partners of cancer patients report high levels of distress, sometimes even greater than that of the patients, and for some this distress may persist.14 Thus, it is important to identify those patients and family members experiencing, or at risk of greater distress and refer them to more intensive psychosocial therapies.15 Within this process it is also important to assess individuals’ preferences and supportive care needs and from this systemically refer patients to the type of psychosocial service that would be expected to most closely match their needs. This stepped care approach maximises the effectiveness and efficiency of health care resources.

The tiered model of care is a stepped care approach that aims to match the patient’s or family member’s level of distress and expressed need to an appropriate level of psychosocial intervention.16 (see Figure 1)
Triage to the appropriate levels of intervention can be undertaken using a range of methods from an in-depth clinical interview to psychometric screening. As need or distress increases, the level of care also increases with higher levels of care, obtained from universal care for all patients, to acute care for patients with complex needs. On this view, universal care is standard care and should be offered to anyone affected by cancer, both patients and relevant family members. This level of care includes: provision of cancer-related information; brief support from a health care professional in the treatment team and referral to a cancer-related telephone helpline; and information focused interventions such as patient education. Support care at the next level, in this tiered model, includes services such as: psycho-educational interventions, in either individual or group format; decisions about treatment options; and a single item verbal screening question assessing global distress. Since its inception in May 2004 to November 2005, the Cancer Counselling Service has received over 700 referrals and will extend to provide face-to-face counselling in 2006. Table 1 overviews the pattern of client demographics and presenting problems for this service for the first 12 months of operation. At intake assessment, most clients demonstrated moderate to severe distress (78%), with 9% assessed as having mild distress and 13% as having severe distress. This data suggests that triage from the Cancer Helpline is effective in appropriately matching client need to the intervention level of the Cancer Counselling service.

Translating evidence into clinical practice: educating health professionals about psychosocial care

It is assumed that support needs change and differ according to the needs of cancer patients and their families. The tiered model is based first on the assumption that individuals differ, with regards to both their support needs and the type of services that they are most likely to receive or access. Second, it is assumed that support needs change and differ over time so there is an imperative to check on needs and offer appropriate treatment support. Finally, it is proposed that health professionals aim to be patient centred, flexible in approach, well connected to psychosocial care referral networks and work within the scope of their clinical practice.

In Queensland, this model has been applied to underpin the implementation of Queensland Cancer Fund (QCF) services. The QCF is a publicly funded and acute service. Queensland has a population of four million in a state close to seven times the geographic size of the United Kingdom. The population is approximately 22 million.

Table 1: Client demographics and presenting problems for the cancer counselling service

<table>
<thead>
<tr>
<th>Demographic variable</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age</td>
<td>M=50yrs (range 20 to 85yrs)</td>
</tr>
<tr>
<td>Gender</td>
<td>Female 80</td>
</tr>
<tr>
<td></td>
<td>Male 20</td>
</tr>
<tr>
<td>Geographical residence</td>
<td>Brisbane 46</td>
</tr>
<tr>
<td></td>
<td>Regional 54</td>
</tr>
<tr>
<td>Client type</td>
<td>Patient 59</td>
</tr>
<tr>
<td></td>
<td>Family/carer 41</td>
</tr>
<tr>
<td>Cancer type</td>
<td>Breast 32</td>
</tr>
<tr>
<td></td>
<td>Colorectal 16</td>
</tr>
<tr>
<td></td>
<td>Lung 10</td>
</tr>
<tr>
<td></td>
<td>Prostate 9</td>
</tr>
<tr>
<td></td>
<td>Brain 7</td>
</tr>
<tr>
<td></td>
<td>Other 26</td>
</tr>
</tbody>
</table>

Prevalent presenting problems

- Adjustment to cancer 20%
- Bereavement 16%
- Anxiety 15%
- Depression 12%
- Family relationships 11%
- Other e.g. survivorship, physical symptoms, relationship issues 26%

Note: N=444

needs of cancer patients and their families; 2) the concept of stepped care as outlined in the tiered care model; 3) knowledge of local psychosocial care referral networks; and 4) the relationship between integration of psychosocial care into usual practice. The workshop was designed as a two hour presentation that was jointly delivered in three regional Queensland locations by two of the present authors (JT and SKS). The tiered model of care is overviewed with reference to a number of study sections including patients with different need and distress levels. These scenarios are then linked to relevant sections of the NHMRC guidelines, to illustrate how this document can be practically relevant for individuals’ practices. Participants’ pilot data from the workshops showed a highly positive endorsement of this approach with the tiered model of care viewed as clinically relevant. Follow-up data indicated positive changes in participants’ knowledge and attitudes to psychosocial care with a full report currently in preparation. A DVD version of the workshop program is in planning for 2006, as well as further workshop roll-outs in Queensland regional and metropolitan settings.

Conclusion

Cancer has a powerful emotional impact on patients and their families through the continuum of diagnosis, treatment and survival, and palliative care. Psychosocial care is integral to quality cancer care. However, psychosocial care should not be a ‘one size fits all’ service – matching resources and services to the needs of patients and families. The use of psychosocial resources and is likely to promote optimal adjustment of patients and their families. The dissemination and wide spread adoption of evidence-based public health and clinical programs into the community remains a unresolved challenge. The tiered model of care provides a link between evidence based clinical guidelines and actual clinical practice, and between community and acute care settings.

References

2. Ford MT, Suman VJ, Rummans TA. Cancer-related distress in patients with severe multiple problems require acute intervention from, for example, a multidisciplinary team. Cancer论坛 Volume 30 Number 1 March 2006
The Psycho-oncology Co-operative Research Group

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Abstract
The psycho-oncology Co-operative Research Group was conceived in response to the recognised need to develop the capacity and coordinated collaboration to conduct large-scale, multi-centre psycho-oncology and supportive care research. In 2005, it was successful in achieving infrastructure funding for two years from the Cancer Institute NSW and has already achieved a national membership of 75.

The psycho-oncology Co-operative Research Group’s mission is to improve the outcomes of patients experiencing a diagnosis of cancer, their families and carers through evaluation and implementation of psychosocial and supportive care interventions for patients, carers, health professionals and the health care system.

It is hoped that the Psycho-oncology Co-operative Research Group will attract leading researchers and psycho-oncology health professionals and will facilitate a flow of increased collaborations and the development of high-quality research and exchange of ideas.

1. To bring together researchers, clinicians, health care professionals and consumers with an interest in psycho-oncology to foster collaboration and the exchange of ideas.

2. To develop large-scale, multi-centre psycho-oncology studies of clinical relevance and importance which would be difficult for any one team to mount.

3. To develop formal links with cancer clinical trial groups to facilitate quality of life and psychosocial sub-studies.

4. To promote psycho-oncology research and support emerging new researchers in this area.

Currently located within the University of Sydney, PoCoG is managed under the broad direction of an Executive Committee comprising the Chair (Professor Phyllis Butow) and Coordinator (Dr Rebecca Hagerty) of PoCoG, Chair of the Psychosocial Group in COSA (Professor Afaf Girgis), COSA liaison (Haryana Dhillon) and two nominees from the Scientific Advisory Committee (SAC), currently Professor Kate White and Dr Michael Jefford. The Executive is responsible for day-to-day management, financial and administrative issues, liaison with other trials groups and general central coordination.

The SAC comprises 34 Australian and New Zealand members representing the disciplines of psychology, health research, medical, radiation and surgical oncology, social work, psychiatry, biostatistics, palliative care and nursing, as well as consumer representation. The SAC will oversee the direction of PoCoG and lead the establishment and enhancement of links with cancer trials groups within Australia and review protocols submitted to PoCoG. The first PoCoG SAC meeting was held at the COSA Annual Scientific Meeting in Brisbane in November 2005.

PoCoG membership is open to clinicians, allied health professionals and researchers in Australia and New Zealand who have an interest in psycho-oncology research. An application form is available by contacting the coordinator and there is no charge to join the group.

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is a major challenge. In addition, the granting bodies in Australia and internationally are increasingly promoting the importance of collaborative, large-scale, multicentre research. Dissemination research is also emerging as a key issue, however this is difficult to conduct in single institutions. For these reasons, the formation of PoCoG is timely, providing a forum to potentially improve the already impressive psychosocial research productivity in Australia.

Summary

The Psycho-Oncology Co-operative Research Group will add significant value to existing research, and allow a quantum leap forward in the strength and innovation of research within this area. The activities of PoCoG will have benefits not only for psycho-oncology research in this country, but through its QoL coordinating centre for every cancer trials group. This will ensure that research and guideline development for new treatments appropriately consider QoL trade-offs. Cancer patients, their carers and families and cancer staff will all benefit from a strong Psycho-Oncology Co-operative Research Group in this country. We expect to have at least three trials funded and recruiting by the end of 2006.

References
the University of Sydney Human Research Ethics Committee. Participants or group coordinators were contacted by telephone. The aims of the project were outlined, verbal consent sought and either a telephone interview was arranged or a self-report survey mailed, equivalent to the interview. One hundred and twenty-six coordinators were telephone interviewed and 53 were sent the self-report survey.

The telephone interview and self-report survey included open-ended closed questions assessing various aspects of group functioning, including contact details, group setting, group aims, history and structure. Participants were also asked about any difficulties their group had experienced.

**Results**

Of the 264 cancer support groups identified, 173 active and 11 non-supportive groups participated in the audit. Of the 80 groups who did not participate, 20 and 11 non-active support groups participated in the audit. Twenty-three of the groups listed had ceased to operate. The results presented in this article relate to the 184 participating cancer support groups.

### Nature and specificity of cancer support groups

The earliest recorded group started in 1978. Groups ranged in age from one month to 25 years (mean = 6.4 years, SD = 4.9) (see Table 1). One over three of the groups (n=65) had commenced since 2000. Support groups had been established by a range of people including health professionals (nurses, social workers, psychologists and doctors), religious officials, speech pathologists and employees of TCCN. Of note, people with cancer founded at least a quarter of the groups surveyed (>70 groups).

Sixty-one cancer support groups were located within the Sydney metropolitan area (33%) (see Table 2). There was a roughly even split between general and specific (restricted to a particular cancer type or site) groups. Of the general cancer support groups, one restricted membership to male participants and two restricted membership to women. Four cultural and language-specific groups, all located in Sydney, were identified (Indigenous, Chinese, Spanish and Greek). There were three groups specifically for people with recurrent cancer or receiving palliative care, one for caregivers, one for people newly diagnosed with cancer and a group for people experiencing lymphoedema (not limited to participants with a breast cancer diagnosis). Five of the breast cancer groups were for young women only. Some groups included people with diagnoses other than cancer, eg. the asbestos-related disease mesothelioma.

Cancer support group meetings were most frequently located in a health care setting (n = 110; 60%) (see Table 1). Other venues (n = 30; 17%) for meetings included business premises, local clubs or restaurants/cafes. Some groups varied the location of their meetings, thus identifying more than one venue.

Groups were facilitated by health professionals, people affected by cancer (which included a person with cancer, a carer or a volunteer with cancer experience), or a combination of these. A small number of groups were facilitated by a qualified health professional who also had a cancer diagnosis. Over half of the support groups (61%) were facilitated by either one or two health professionals, typically social workers, nurses or psychologists. Half (50%) of all group coordinators were conducting the group as part of their paid health professional role, while the other half were leading the group voluntarily. There were at least 39 groups with a person with cancer in a leadership role within the group.

The costs associated with running the group were subsidised by a charity organisation (n=23; 13%), group members' contribution (n=39; 24%) or an external funding source (n=28; 17%) (see Table 1). Group members' contributions varied from a "gold coin" donation to an annual subscription to the group. These funds were offset the cost of beverages, room rental or insurance costs. External funding sources included the local community, hospital departments, government/cancer organisations, or businesses. Administrative assistance was received by 53% of groups from external sources including the hospital or community health centre to which the group was attached, cancer organisations such as TCCN, private businesses or other community organisations.

Support group coordinators were asked to identify the main aim or aims of their group. Most group leaders reported that the primary aims of the group were psychological and emotional support (n = 179; 98%) and information and education (n = 168; 92%). Smaller numbers identified social contact (n = 136; 74%), practical assistance (n = 112; 62%), spiritual assistance (n = 89; 49%), physical needs (n = 84; 47%), advocacy (n = 65; 37%) and other aims (such as fundraising) as aims of the group.

Support group meeting times varied from 45 minutes to two hours. Nearly two thirds of groups met monthly (n = 116; 64%) (see Table 1). Of the 31 groups that held weekly meetings, 11 ran set programs that were conducted over a fixed number of weeks.

Over three-quarters (n = 142; 79%) of the support groups regularly invited guest speakers to present topics of interest at their meetings. Guest speakers included doctors, nurses, psychologists, dieticians, naturopaths and pharmacists. Mutual support and sharing occurred in most support groups (85%).

Participants reported the most effective recruitment strategy was through "word of mouth". Many group coordinators (n = 131; 82%) advertised their group through media including local newspapers, radio or television, or through pamphlets/public notices placed in various health care settings and/or the wider community. The majority of support groups (n = 140; 90%) reported that they maintained a mailing list of their group members.

Most support groups (n=170; 93%) were open for new participants to pay at any time (see Table 1). There was a large variation in the reported attendance at support group meetings, ranging from one to 200 with an average of 13 participants per meeting.

Attendance of carers or family members at meetings was permitted by 155 groups (n=155; 85%), with three such people attending on average (range 0-18). Some breast or gynaecological cancer groups restricted participation to female carers or family members only.

One hundred and eight group coordinators (61%) reported that their support group was currently experiencing difficulties, including attendance drop, an unsuitable venue, lack of administrative and leadership resources and limited accessibility to guest speakers. Among the 11 groups that were inactive, the most frequently identified difficulties were poor attendance because of illness/death, difficulties recruiting new members, support and information needs of participants having been satisfied by the group (leaving no reason for continued existence), lack of support from the community and practical issues such as transport difficulties and work commitments. Some group coordinators reported planning to recommence group meetings employing a different format.

### Discussion

This study examined the nature and structure of cancer support groups in NSW. The study identified a large number of active cancer support groups in NSW with marked proliferation of these groups in the last decade. This finding may be reflecting an increasing role for groups in meeting the supportive care needs of cancer patients. Many of the groups identified had been functioning over many years, however the fluid nature of support group formation, evolution and cessation was very evident in this study.

Groups varied in their location, specificity, setting, leadership and structure. There was a wide variation in attendance with, on average, 13 attendees at group meetings. The frequency of meetings also differed, with 116 groups (63%) providing monthly meetings, while nearly 20% held weekly meetings. Despite this diversity, groups appeared to be similar in their aims and function. Psychological support and information/education were found to be universally important.

Referral to support groups by health professionals was however, relatively uncommon. Word of mouth was the most frequent method of recruiting new members, with leaders frequently identifying that poor attendance and referral was one of the main difficulties being faced by the group. Groups typically operated with little direct financial support and variable formal input from health services and cancer organisations. This was reported to contribute to difficulties in maintaining a viable group. Mechanisms to rectify this situation need to be

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**Table 1** Characteristics of cancer support groups (n=184)

<table>
<thead>
<tr>
<th>History</th>
<th>No.</th>
<th>%</th>
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</thead>
<tbody>
<tr>
<td>- 1970-1979</td>
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</tr>
<tr>
<td>- 1980-1989</td>
<td>16</td>
<td>9</td>
</tr>
<tr>
<td>- 1990-1999</td>
<td>91</td>
<td>53</td>
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<td>- 2000-2003</td>
<td>65</td>
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<table>
<thead>
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<th>Setting</th>
<th>No.</th>
<th>%</th>
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<tbody>
<tr>
<td>- Hospital/health centre</td>
<td>110</td>
<td>60</td>
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<tr>
<td>- Community centre</td>
<td>48</td>
<td>26</td>
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<tr>
<td>- Group members' homes</td>
<td>9</td>
<td>5</td>
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<tr>
<td>- Other</td>
<td>30</td>
<td>17</td>
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<table>
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<th>%</th>
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<tbody>
<tr>
<td>- Charity</td>
<td>23</td>
<td>13</td>
</tr>
<tr>
<td>- Member contributions</td>
<td>39</td>
<td>24</td>
</tr>
<tr>
<td>- Other external funding source</td>
<td>28</td>
<td>17</td>
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<tr>
<td>- Administrative assistance</td>
<td>83</td>
<td>53</td>
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</table>

<table>
<thead>
<tr>
<th>Frequency of meetings</th>
<th>No.</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>- Weekly</td>
<td>31</td>
<td>17</td>
</tr>
<tr>
<td>- Every second week</td>
<td>19</td>
<td>11</td>
</tr>
<tr>
<td>- Every third week</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>- Monthly</td>
<td>116</td>
<td>64</td>
</tr>
<tr>
<td>- Every second month</td>
<td>7</td>
<td>4</td>
</tr>
<tr>
<td>- Every third month</td>
<td>6</td>
<td>3</td>
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</table>

**Table 2** Location of support groups and specificity of cancer diagnosis

<table>
<thead>
<tr>
<th>Specificity</th>
<th>Sydney based</th>
<th>Outside Sydney</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>General cancer support groups</td>
<td>29</td>
<td>58</td>
<td>87</td>
</tr>
<tr>
<td>Groups specific to:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Breast</td>
<td>15</td>
<td>45</td>
<td>60</td>
</tr>
<tr>
<td>- Partners of people with breast cancer</td>
<td>1</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>- Prostate</td>
<td>7</td>
<td>14</td>
<td>21</td>
</tr>
<tr>
<td>- Colorectal</td>
<td>3</td>
<td>1</td>
<td>4</td>
</tr>
<tr>
<td>- Gynaecological</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>- Haematological</td>
<td>2</td>
<td>1</td>
<td>3</td>
</tr>
<tr>
<td>- Brain</td>
<td>1</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>- Asbestos-related diseases</td>
<td>1</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>- Pancreatic</td>
<td>1</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>- Throat</td>
<td>0</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Totals</td>
<td>61</td>
<td>123</td>
<td>184</td>
</tr>
</tbody>
</table>

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Cancer Forum Volume 30 Number 1 March 2006
identified. It is possible that health professionals and support group leaders would benefit from developing a better level of mutual understanding, such that health professionals increase their awareness of the structure and content of the support groups that are available to their patients, while group leaders can be confident of ongoing professional support and assistance, thus overcoming some of the key difficulties faced by cancer support groups. This research aimed to examine the nature and structure of cancer support groups specifically in NSW, Australia. This information was provided by leaders of cancer support groups and was cross-sectional. The generalisability of these findings to other regions is unknown. Despite these limitations, this research has added to the small amount of literature available on the nature and structure of cancer support groups, specifically, those groups not engaged in formal psychotherapeutic intervention. Groups offer support to a large number of people at the one time and thus are a cost and time effective method of delivering social support. The evidence that does exist on cancer support groups suggests that they may be beneficial to attendees. Little is known however about the effectiveness of cancer support groups not engaged in formal psychotherapeutic intervention as it would be of interest therefore to consider the effect of differing group structures on psychological well-being.

Acknowledgements

Funding for this project was provided by The Cancer Council NSW and by the National Health and Medical Research Council’s Biomedical Postgraduate Research Scholarship (Dr Laura Kirsten).

References


PROMOTING SHARED DECISION MAKING INFORMED CHOICE FOR THE EARLY DETECTION OF PROSTATE CANCER: DEVELOPMENT AND EVALUATION OF A GP EDUCATION PROGRAM

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Abstract

Prostate cancer is the most commonly diagnosed cancer in Australian men. At present, there is no definitive data confirming that widespread screening for prostate cancer will reduce the death rate from this disease. In Australia population-based screening for prostate cancer in asymptomatic men is not promoted. However, regardless of public health views on this issue, prostate-specific antigen testing in Australian men is prevalent.

Most guidelines advocate that asymptomatic men seeking prostate-specific antigen testing in order to detect early prostate cancer should be advised of the pros and cons of testing and make an informed choice. The difficult task of managing consumer demands in the face of conflicting viewpoints and uncertain medico-legal requirements usually falls on general practitioners who until recently have had few resources to assist them.

This paper describes the development and evaluation of a pilot general practitioners education program in Victoria. After attendance, participants’ knowledge about prostate-specific antigen testing and level of understanding increased, there were more likely to initiate discussions with patients about the risks and benefits of testing and were more confident in doing so. Participant satisfaction with the program and materials was high. In a health topic characterised

Prostate cancer presents a significant public health concern as the prostate is the most commonly diagnosed cancer in males. In Australia in 2001 there were 11,191 men diagnosed, while in Victoria, approximately 3000 were diagnosed every year. Since 1989, diagnosed rates of prostate cancer cases have more than doubled. This significant rise in prostate cancer incidence is likely to be the result of increased numbers of men undergoing prostate specific antigen (PSA) testing.

There is controversy surrounding the value of population-based screening for prostate cancer with the PSA test. Levels of PSA in the blood only act as an indicator of the disease and there are no definitive data to confirm that PSA testing will reduce prostate cancer mortality. However, some research suggests there may be benefit from the early detection and treatment of localised prostate cancer. It is also clear that the quality of men’s health may be compromised by not offering individuals the opportunity to be tested. Furthermore, there is support for the position that men should be able to access testing if they are fully informed of the benefits and also the uncertainties related to the efficacy of PSA testing and the risks surrounding treatment outcomes. Thus, at this time population-based screening with the PSA test for the early detection of prostate cancer in asymptomatic men is not recommended by The Cancer Council Australia. This position is supported by the USSR of Australia, the Australian Department of Health and Ageing and the Australian Prostate Cancer Collaboration (APCC). On the matter of opportunistic testing, these organisations and most clinical practice guidelines recommend that patients be fully informed of the risks and benefits before making their own decision.

Shared decision making is based on patients and health professionals sharing relevant information (eg. about risks, benefits, patient’s characteristics and values) and agreeing on decisions. It is most suitable for situations in which there is a diagnostic intervention of low risk and a decision involving two or more acceptable choices. Participants in consultation conventions designed to help people make specific and deliberate choices among options by providing information on the options and outcomes relevant to the person’s health status. They are usually reserved for circumstances in which patients need to carefully deliberate about the personal value of the benefits and harms of options. Shared decision making and informed choice are currently viewed as the most appropriate approach for men deciding about PSA testing for the purpose of the early detection of prostate cancer and men themselves indicate a preference for shared decision making.

In most cases, the decision to inform men about, and initiate testing, is the responsibility of general practitioners (GPs). Some GPs are likely to perceive this task as complex, demanding and time consuming given that they must consider consumer health demands and uncertain medico-legal requirements among much controversy. Although many men express interest in informed health and shared decision making in regards to PSA testing for the early detection of prostate cancer, others may be tested by their GP as part of routine blood checks without knowledge of the test or the implications of having a positive test. It is vital that men are informed about the advantages and disadvantages of testing and may choose to participate in decisions regarding their care. Since GPs are the most likely source of information for PSA testing and thus have a major role to play in helping men to fully understand screening and treatment issues so that men in their care make informed choices about prostate cancer screening.

The development of workshops up-skiing GPs to provide informed choice for prostate cancer testing was initiated by the Queensland Cancer Fund (QCF) after a request was made by the APCC and the National Cancer Control Initiative (NCCI). Recognising the complex health care service environment in which GPs operate, in 2003 the APCC supported the development of a GP education program to facilitate shared decision making and informed choice for men considering the early detection of prostate cancer. In consultation with this and other medical groups, the QCF developed an education and decision making resource program that aimed to up-skill GPs in order to promote shared decision making within their practices for men considering prostate cancer testing.

With this objective in mind, the program was designed to cover two main areas:

1. The medical context of screening, which includes information about the natural history of the disease; benefits and harm of screening for and treating prostate cancer; use and interpretation of PSA testing.
2. Shared decision making, which covers the medico-legal requirements of informed choice; understanding how men make decisions; and effective patient centred communication.

An extensive resource kit for participants was also developed, including all relevant brochures and web-based information.

The program was designed to be presented by expert medical professionals in two-and-a-half hour interactive workshops. The workshop format included included two presentations and three case studies that were discussed in small groups, followed by larger group discussions. The medical context of screening and shared decision making presentations, along with the patient show card, aimed to develop participant capabilities in informed choice for prostate cancer testing. A multi-modal learning approach was used, consisting of formal presentations, discussion of case scenarios and the role of the interactive decision/summary card in a shared decision making process.

The workshops were accredited for professional development points under the Royal Australian College of General Practitioners’ Quality Assurance and Continuing Professional Development Program and the Australian College of Rural and Remote Medicine’s Professional Development Program. Workshops were held as part of a pilot study conducted in Queensland by the QCF and in Victoria by The Cancer Council Victoria. In Victoria, three workshops were held in November 2004 in conjunction with Victorian Divisions of General Practice.

It is anticipated that this education program will become part of a national strategy to deliver prostate cancer education to GPs.
This report describes findings from three pilot workshops conducted by the Cancer Education Unit of The Cancer Council Victoria.

Method
Five Victorian Divisions of General Practice (Divisions) hosted three workshops in November 2004 in conjunction with The Cancer Council Victoria; the first workshop was held in partnership with the Northern Division in Preston (3072), the second workshop was held in partnership with Inner Eastern Melbourne Division and Melbourne Division in Hawthorn (3122) and the third workshop was held in partnership with Greater South Eastern Division and Dandenong District Division in Mornington Peninsula (3145). The five metropolitan divisions participated in the pilot due to their interest in prostate cancer and their capacity to deliver a workshop within the pilot timeframe.

The divisions coordinated the recruitment of GP participants to the workshops using a combination of communication methods including newsletter articles, direct mail and fax streams. GP participants were recruited from within the division boundary.

The pre and post-workshop questionnaires, developed by Steginga, Pinnock and Baade, assessed confidence, intention to discuss, knowledge and workshop satisfaction. To determine the effectiveness of the workshops in improving participants’ knowledge of prostate cancer testing and their confidence in discussing testing with men. We also assessed self-reported intention to discuss testing opportunistically. Data regarding knowledge and confidence in and intention to discuss prostate cancer testing with asymptomatic men were collected via self-administered multiple choice and open-ended questions. Finally, the participants were requested to complete a workshop evaluation form assessing program structure and delivery and an evaluation of the resource cards used during the workshop.

Results
In total, 70 GPs attended the three workshops. There were 42 (60%) participants who completed the pre-test questionnaire, which measured confidence in and intention to discuss prostate cancer screening with asymptomatic men. Twenty-eight (40%) participants completed the post-test questionnaire, which was designed to assess change in confidence and intention to discuss prostate cancer screening issues with asymptomatic men following workshop participation. The workshop evaluation was completed by 63 (90%) participants who attended the workshops and the resource evaluation was completed by 59 (84%) participants.

Before attending the workshop, participants thought they had ‘some’ to a ‘good’ level of understanding about the benefits and risks of prostate cancer screening in asymptomatic men (M=3.56, SD=9.1). Scores on the actual knowledge scale suggested that some GPs overestimated their knowledge about prostate cancer, with the average score on this scale being around the mid-point (M=8.26, SD=2.58 of a possible total score of 17). Following workshop attendance participants’ knowledge scores significantly improved (t(27)=4.17, p<.05), as did their self-rating of understanding about the benefits and risks of prostate cancer screening (t(25)=4.80, p<.01). Participants’ rating of the importance of making participants aware of the benefits and risks of prostate cancer testing did not change (t(27)=0.5, p>.05).

Participants’ confidence in and intention to discuss testing with an asymptomatic man significantly increased after attendance. Confidence in and intention to discuss testing with an asymptomatic man had similar patterns. The majority of participants stated that ‘most’ or ‘all’ of what was learned in the workshop would be ‘useful’ or ‘very useful’ for their general practice and 34% thought it would be ‘somewhat useful’. Eighty-six per cent rated the resource kits as ‘good’ or ‘excellent’.

Fifty-nine participants rated the interactive decision card and the summary reference card. The majority of participants (61%) rated the decision card as ‘easy’ or ‘very easy’ to follow and 25% reported it as ‘somewhat easy’. In line with this pattern of responses, 59% of participants reported that the card would be ‘useful’ or ‘very useful’ for their general practice and 29% thought it would be ‘somewhat useful’. For the summary reference cards, two-thirds (66%) of participants rated the summary reference card as ‘easy’ or ‘very easy’ to follow and 29% reported that it was ‘somewhat easy’ to follow. Consistent with this finding, 63% of participants reported that the summary reference card would be ‘useful’ or ‘very useful’ for their general practice and 34% thought it would be ‘somewhat useful’. Eighty-six per cent rated the resource kits as ‘good’ or ‘excellent’.

Participants rated their satisfaction with a number of aspects of the workshop (Table 2). Overall most participants rated the various aspects as ‘good’ or ‘excellent’.

Overall, 59% of participants reported that the workshop was ‘very useful’ or ‘extremely useful’ and a further 32% rated it as ‘generally useful’. Only 5% of participants reported that the workshop was ‘a little useful’ or ‘not at all useful’. The vast majority of participants (89%) said they learned something new at the workshop and 92% said that they would recommend the workshop to other GPs. The majority of participants (64%) reported that ‘most’ or ‘all’ of what was learned in the workshop would lead to an improvement in how prostate issues are provided to patients. A further 30% said that ‘some’ of what was learned in the workshop would lead to an improvement in how prostate issues are provided to patients. Similarly, 67% of participants reported that they would try to implement ‘most’ or ‘all of what was learned in the workshop into their practice. A further 30% said they would try to implement ‘some’ of what was learned in the workshop into their practice.

A brief qualitative analysis of responses to the open-ended questions revealed that a small proportion of participants (14%) said that there were areas either not covered or not covered in enough detail. Most of the areas listed by participants related to the treatment of prostate cancer. Participants mentioned screening issues and one mentioned the patient’s psychological response. Many participants anticipated that there would be some barriers to implementing the knowledge obtained in the workshop. The most commonly reported barriers were lack of consultation time and patient understanding and attitudes towards prostate cancer testing. Other barriers that were less commonly mentioned included the large volume of relevant information, patient follow-up, the GP’s own philosophy and being female, particularly in relation to digital rectal examination. Some participants suggested ways the program could be improved. The most common suggestions related to the workshop content, such as including a brief overview of prostate cancer issues and providing more case studies. A small number of participants commented on the length of the

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### Table 1: Descriptive data for confidence about and intention to initiate a discussion about testing for prostate cancer (N = 28)

<table>
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<tr>
<th></th>
<th>Pre test</th>
<th>Post test</th>
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<td>Confidence</td>
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<td>Confidence in discussing for prostate cancer*</td>
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<td>Standard deviation</td>
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<tr>
<td>Mean</td>
<td>4.36</td>
<td>4.54</td>
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<tr>
<td>Standard deviation</td>
<td>0.39</td>
<td>0.96</td>
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</table>

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Note: * - intention to initiate a discussion about testing was assessed on a scale from: 1, not at all likely to 3, somewhat likely, to 5, very likely. ** - confidence in discussing testing was assessed on a scale from: 1, not at all confident to 3, somewhat confident, to 5, very confident.

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Note: N=63; Due to missing data percentages may not equal 100.
Discussion
The findings from this evaluation revealed that physician knowledge about the potential risks and benefits of prostate cancer testing increased significantly after attending the workshop. Physician confidence in discussing prostate cancer testing with asymptomatic men over 50 years increased significantly after attending the workshop, as did their intention to discuss testing. There were also small but non-significant increases in physician confidence and intention to discuss prostate cancer testing with asymptomatic men who were younger than 50 years but had a significant family history of prostate cancer.

Overall, the program was well received by GPs and it appeared to meet their needs on a number of levels. A possible explanation for this can be attributed to the delivery of a multi-model learning approach. The results showed that the majority of participants reported that it was very or extremely useful and a further one-third thought the program was generally useful. When participants rated their satisfaction with a number of aspects of the program (including the speaker, workshop content, relevance, length, timing, presentation slides, GP resource kit and discussion time), the vast majority rated each aspect as good or excellent. In line with their satisfaction ratings, almost all participants said that they would recommend the workshop to other GPs. Another encouraging finding was that the majority of participants thought that the information they learned through the workshop would lead to an improvement in the quality of care they provided to patients and that they would implement most or all of what they had learned.

In general, the results for the interactive decision card and the summary reference card were encouraging with the vast majority finding the resources at least somewhat easy to use and at least somewhat useful. While most participants reported that both resources were easy to follow and that they would be useful for their general practice, a small proportion did not agree. These findings suggest that the interactive decision card and summary reference card may need more time dedicated to them in the workshop or they may need to be revised to make them even easier to use. As a consequence of the findings from these workshops, the interactive decision card and the summary reference card have been recently updated.

Conclusions
In conclusion, the workshops were well received by GPs and were associated with positive changes in knowledge and confidence about shared decision making and informed choice in relation to prostate cancer testing. The potential impact of the education on opportunistic testing was not explored in this regard, the program did not advocate for or against testing, but rather aimed to educate GPs about the relevant issues and the need for shared decision making and informed choice. Feedback from the participants suggested that they were very satisfied with the workshop content and the way it was presented. Furthermore, participants reported that the resources provided within the workshop were easy to follow and appropriate for their practice. Nevertheless, there were some issues provided by participants that should be considered in order to improve the workshop. One of the key barriers to using the skills and resources provided in the workshop is the lack of consultation time. Strategies for GPs to use the skills and resources within the time constraints need to be considered. This is an area of further research and will need both changes in the GP environment and new government preventative health strategies. The findings also highlight some aspects of the workshop that might be further developed, such as providing more time for additional practical case studies and giving an initial brief overview of prostate cancer screening and treatment issues.

Acknowledgement
We gratefully acknowledge the assistance of Ross Snow, Michael Chamberlain and Damien Bolton in the development and piloting of this education program. We also gratefully acknowledge the support of the Queensland Cancer Fund, the Australian Prostate Cancer Collaboration, the Prostate Cancer Foundation of Australia, the Northern section of the Urological Society of Australasia, The Cancer Council Victoria, the National Cancer Control Initiative, the Brisbane North Division of General Practice, the Northern Division of General Practice, Inner Eastern Melbourne Division of General Practice, Melbourne Division of General Practice, Greater South Eastern Division of General Practice and Dandong District Division of General Practice.

A PDF version of the GP/Patient Show Card and GP Reference Card can be downloaded from the NCCI website (www.ncci.org.au) or from the Information for health professionals page on The Cancer Council Australia’s website (www.cancer.org.au).

References
7. Talcott JA. What patients should be told before agreeing to a blood test that could change their lives. Urology 2003; 61(1): 7-9.

Support for Research
The Cancer Council Australia and its members, the state and territory Cancer Councils, are the leading funders of independent cancer research and related activities in Australia. Grants are made following competitive, peer-reviewed assessment of funds derived from donations and bequests.

In 2006 Cancer Councils allocated over $32 million to cancer research in Australia.

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.

Please note: for research grants spanning more than one year, only funds to be dispersed in 2006 have been included.
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<td>Surveillance of Community Attitudes and Practices towards Tobacco</td>
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<td>Research into Cost Burden of Cancer</td>
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<td>Needs of Caregivers</td>
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<td>$55,482</td>
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<td>Social Marketing Research – sun protection in adolescence</td>
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<td>$44,000</td>
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</table>
THE CANCER COUNCIL SOUTH AUSTRALIA

Research grants

Dr Chris Hahn, A/Professor Jennifer Gamble
Vascular Biology Laboratory
Hanson Institute

Identification of the role of a novel angiogenic gene, VasGAP, in development and cancer

$76,000

A/Professor Paul Vasey, Dr Michael Quinn, Professor John Simes, A/Professor Michael Friedlander, Dr Martin Buck, Dr Bogda Kociwara
Department of Medical Oncology
Royal Brisbane and Women's Hospital

Carboplatin Flat Dosing versus Intrapatient Dose Escalation in First Line Chemotherapy of Ovarian Cancer

$6000

Dr Stuart Pitson
Human Immunology Institute of Medical and Veterinary Science

The cellular regulation of sphingosine kinase by eEF1A and its role in tumorigenesis

$70,100

A/Professor Robert Richards
School of Molecular and Biomedical Sciences Molecular Life Sciences
The University of Adelaide

Function of the FOR/WWOX gene and its contribution to cancer cell biology

$80,025

A/Professor Geoffrey Lindeman,
Dr Gillian Mitchell, Dr Alan Stapleton
Familial Cancer Centre
Royal Melbourne Hospital

Identification of Men with a genetic predisposition to Prostate Cancer and their Clinical Treatment - The IMPACT Study

$47,700

Dr Stuart Pitson
Human Immunology Institute of Medical and Veterinary Science

The cellular regulation of sphingosine kinase by eEF1A and its role in tumorigenesis

$70,100

A/Professor Robert Richards
School of Molecular and Biomedical Sciences Molecular Life Sciences
The University of Adelaide

Function of the FOR/WWOX gene and its contribution to cancer cell biology

$80,025

A/Professor Geoffrey Lindeman,
Dr Gillian Mitchell, Dr Alan Stapleton
Familial Cancer Centre
Royal Melbourne Hospital

Identification of Men with a genetic predisposition to Prostate Cancer and their Clinical Treatment - The IMPACT Study

$47,700

Professor David Currow, Dr Amy Abermuthy,
Ms Debra Rowett, Ms Tanaz Shelby-James,
Ms Belinda Fazekas, Dr Peter Allcroft
Palliative and Supportive Services
Flinders University

A pilot study of the effectiveness of academic detailing on dyspnoea in cancer patients in a palliative care setting

$65,263

E/Professor Alexander Morley,
Dr Michael Bruce, A/Professor Pamela Sykes, Dr Bryone Kuss
School of Medicine, Flinders University

Improving the measurement of minimal residual disease in acute leukaemia

$76,000

Professor Martin Tattersall, Dr Michael Jefford, Professor Ian Oliver
Department of Cancer Medicine
University of Sydney

Enhancing cancer patient participation when discussing clinical trial enrolment: evaluation of a question prompt list

$36,100

Professor Ian Oliver, A/Professor Guy Toner,
Professor Willis Marshall, A/Professor Michael Boyer, A/Professor Paul Maruff
RAdH Cancer Centre
Royal Adelaide Hospital

The Effects of Chemotherapy on Cognitive Function in Patients with Testicular Cancer

$53,500

Professor Wayne Tilley, Dr Lisa Butler,
Professor David Rodier, Dr Galarah Farshr0
Dame Roma Mitchell Cancer Research Laboratories, Department of Medicine
University of Adelaide

Androgen-receptor status as a determinant of breast cancer risk

$76,000

A/Professor Dorothy Keefe
Department of Medical Oncology
RAdH Cancer Centre

Chemotherapy-induced diarrhoea: characterisation of mechanism

$70,100

Professor Sharad Kumar
Department of Haematology
Hanson Institute, IMVS

Caspase-2 function in apoptosis and disease

$70,100

Dr Yeesim Khew-Goodall
Division of Human Immunology
Institute of Medical and Veterinary Science

A potential novel signalling pathway regulating epithelial-mesenchymal transition

$70,100

A/Professor Paul Reynolds,
A Professor Mark Holmes
Department Thoracic Medicine
Royal Adelaide Hospital Chest Clinic

Gene Delivery of Tissue Inhibitors of Matrix Metalloproteinases for Pulmonary Metastases

$76,000

TOTAL RESEARCH FUNDED

$10,004,698
A/Professor Geoffrey Lindeman, Dr David Amor, A/Professor Judy Kirk, Dr Graeme Suthers, Professor Jack Goldblatt, Dr Mike Gattas
RMH Familial Cancer Centre/VBCRC Laboratory Royal Melbourne Hospital
kConFab – A Consortium for Research on Familial Breast Cancer
$60,255

A/Professor Timothy Hughes
Division of Haematology Institute of Medical and Veterinary Science
Causes and significance of persistent leukemia in CML patients treated with ABL kinase inhibitors
$68,527

Professor R John Simes, Professor John R Zieberg, A/Professor Paul Waring, A/Professor G Bruce Mann, A/Professor B Mark Smithers, Dr Dusan Katsav, Dr Guy Van Hazel
NHWRC Clinical Trial Centre University of Sydney
Intermediate & High-risk, reseted gastro-intestinal stromal tumours expressing kit, RCT of adjunct imatinib mesylate
$10,834

A/Professor Murray Whitelaw
School of Molecular and Biomedical Science University of Adelaide
Investigating the role of Sim2 in pancreatic cancer
$64,500

Dr Mark Guthridge
Human Immunology, Hansson Institute, IMVS
The role of a novel GM-CSF signalling pathway in regulating cell survival in myeloid leukemia
$78,205

Dr Andrew Zannettino, Dr Stan Grentzos
Division of Haematology, IMVS
Does Stromal Derived Factor 1a (SDF - 1a) Play a Role in Osteolytic Bone Disease and Increased Bone Marrow MicrovesSEL Density in Multiple Myeloma?
$75,838

Total Research Grants
$1,249,697

Senior Fellowships
C Ricciardelli, University of Adelaide
$87,119
Pending new appointment

Total Senior Fellowships

Fellowships
G Howarth, University of Adelaide
$76,355
A Brown, Child Health Research Institute (to commence mid 2006)
$38,170
R Gibson, Royal Adelaide Hospital
$76,355

Total Fellowships
$190,880

W Bruce Hall Cancer Research Fellowship
A Sakko, University of Adelaide
$81,650

Peter Nelson Leukaemia Research Fellowship
M Guthridge, IMVS
$87,119

Other Research Programs for 2006
Chair in Cancer Care – Professor Ian Olver
Travel Grants
$100,000
$35,000
$35,000

Total Other Research Programs
$380,468

TOTAL RESEARCH FUNDED
$2,164,052

THE CANCER COUNCIL TASMANIA
Research grants
Dr Alison Venn
Exposure to high dose estrogens in adolescence: long term effects on Mammographic breast density
$3000

Associate Professor Greg Woods
Long term effects of UV-B radiation on the developing skin immune system
$37,750

Dr Penny Blumfield
Molecular epidemiology of endometrial cancer – addition of Tasmania
$40,500

Dr Christine Trambas
Microscopic, biochemical and functional characterisation of NK cell invasion into tumour cells (emperiploesis)
$51,600

Total Research Grants
$132,850

Funded by David Collins Leukaemia Foundation (DCLF) (amount not included in total research funding)
Dr Adele Holloway
Investigating the role of the RUNX1 protein in the regulation of gene expression in myeloid cells
$20,000

Purchase of Veritas Micropate Luminometer
$5000

Associate Professor Greg Woods
Analysis of a lentivirus-delivered shRNA to prevent leukaemic cell growth
$10,000

Dr Scott Ragg
Survey into the effect of bacterial contamination upon bone marrow transplant outcome
$2180

Total funded by DCLF
$37,180

Other research grants
To be announced
Jeanne Foster Scholarships
$5000

Launceston General Hospital & Clinical Trial Data Managers
Royal Hobart Hospital
Clinical Trial Data Managers
$54,500
$5000

To be announced
Tasmanian Accord Workshop for new researcher
$2500

Clare Healy, Clinical Nurse,  Athena Karydis Foniadakis Scholarship
Royal Adelaide Hospital
$76,355

Gillian Sheldon Collins, Nurse Royal Hobart Hospital
Athena Karydis Fonidakis Grant
$2000

Melinda Minstrell
The Cancer Council Tasmania Post Graduate Research Scholarship
$24,000

Mr Kelvin Low Han Yang, University of Tasmania
The Cancer Council Tasmania Tattersalls Award
$100,000

Total other research grants
$103,000

TOTAL RESEARCH FUNDED
$235,850

THE CANCER COUNCIL VICTORIA
Fellowships
C Richard, University of Adelaide
$87,119
Pending new appointment
$87,119

Total Senior Fellowships

Fellowships
G Howarth, University of Adelaide
$76,355
A Brown, Child Health Research Institute (to commence mid 2006)
$38,170
R Gibson, Royal Adelaide Hospital
$76,355

Total Fellowships
$190,880

W Bruce Hall Cancer Research Fellowship
A Sakko, University of Adelaide
$81,650

Peter Nelson Leukaemia Research Fellowship
M Guthridge, IMVS
$87,119

Other Research Programs for 2006
Chair in Cancer Care – Professor Ian Olver
Travel Grants
$100,000
$35,000
$35,000

Total Other Research Programs
$380,468

TOTAL RESEARCH FUNDED
$2,164,052

THE CANCER COUNCIL VICTORIA
Fellowships
Carden Fellowship
$200,000

D Metcalfe, Walter and Eliza Hall Institute of Medical Research
$144,100

Declubitcch Fellowship
K Phillips, Peter MacCallum Cancer Centre
$144,100

Dunlop Fellowship
G McArthur, Peter MacCallum Cancer Centre
$144,100

K & H Fraser Fellowship
P Colman, Walter and Eliza Hall Institute of Medical Research
$75,000

Lions Fellowship
B Anderson, Walter and Eliza Hall Institute
$20,000 (approx)
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<th>Research Grants</th>
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<td>H Cheng, H Zhu, T Multhum</td>
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<td>P Chong, C Dass</td>
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<td>C Christoph, V Muradilharan, A Shulkes</td>
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<td>B Chuah, D Joseph, J Harvey, V Ahern</td>
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<td>C Clyne, M Jones</td>
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<td>W Cook, M Southey, University of Melbourne</td>
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<td>P Davy, M Kenhawa, J Trapani</td>
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<td>G Duchesne, N Spyr, A Stapleton, H Gurney, E Beller</td>
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<td>P Fuller</td>
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<td>C Hawkins, D Ashley, H Friedman, Murdoch Children’s Research Institute</td>
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<td>J Hupper, E Smitb, A Mitchell, K Waters, University of Melbourne</td>
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<td>R Johnstone, Peter MacCallum Cancer Centre</td>
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<td>R Kuck, A Strasser, Walter &amp; Eliza Hall Institute of Medical Research</td>
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<td>G McArthur, Peter MacCallum Cancer Centre</td>
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<td>J McCuskey, J Rossjohn, University of Melbourne</td>
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<td>M McCormack, S Jane, D Curtis</td>
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<td>M Michael, B Burmeister, A Wirth</td>
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<td>A Deans, Peter MacCallum Cancer Centre</td>
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<td>C McKeeves, St Vincent’s Institute</td>
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<td>S Teng, Royal Melbourne Hospital</td>
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<td>J Simes, J Zaliberg, B Mann, M Smithers, D Kotsak, G Van Hazel</td>
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<td>P Vasey, M Quirin, J Simes, M Friedlander, M Buck, M Davy</td>
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<td>A Scott, V Rayman</td>
<td>$70,000</td>
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<td>J Tattersall, M Jefford, I Oliver</td>
<td>$36,100</td>
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<td>T Togan, Monash University</td>
<td>$70,000</td>
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<tr>
<td>J Tiganis, Monash University</td>
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<td>C Christophi, V Muralidharan, A Shulkes</td>
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<th>Postgraduate Research Scholarships</th>
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<tr>
<td>S Amos, Peter MacCallum Centre</td>
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<td>M Janda, F Chan (TAH) for the treatment of endometrial cancer</td>
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<td>C Fedele, Monash University</td>
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<td>J Fletcher, St Vincent’s Institute</td>
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<td>H Gan, Ludwig Institute for Cancer Research</td>
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<tr>
<td>K Horan, Monash University</td>
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REPORTS

E Lee, Walter & Eliza Hall Institute of Medical Research $22,718
M Loughrey, Peter MacCallum Cancer Centre $2343
K Mason, University of Melbourne $28,450
E Nark, Walter & Eliza Hall Institute of Medical Research $23,350
J Stone, University of Melbourne $9017
N Thomas, Monash University $22,950
M Wall, Peter MacCallum Cancer Centre $27,920
L Williams, Peter MacCallum Cancer Centre $22,718

Vacation Studentships
15 six week summer Vacation Studentships were awarded
Total scholarships and studentships $312,852

Support for Medical and Scientific Activities $69,316

Total Medical & Scientific Support

Cancer Control Research Institute Programs
Cancer Epidemiology Centre $1,099,698
Victorian Cancer Registry $1,944,550
The Melbourne Collaborative Cohort Study (Health 2000) $667,711
Centre for Behavioural Research in Cancer $1,747,763
Centre for Clinical Research in Cancer $1,563,800
VicHealth Centre for Tobacco Control (Cancer Council Victoria contribution to VicHealth Centre) $436,323
Total Cancer Control Research Institute programs $7,459,845

TOTAL RESEARCH FUNDED $10,963,750

THE CANCER COUNCIL WA

Research grants
M Millward Cancer Therapeutics Research Group - Establishment of the Perth node to perform novel cancer clinical trials in WA (two year grant) $60,000
P Hart Regulatory T cells and modulation by ultraviolet B radiation of both type 1 and type 2 immune responses $55,000
M Byrne Use of FDG PET in the Assessment of Tumour Extent and Response in Pleural Mesothelioma (two year grant) $59,500
A Obermair Total Laparoscopic Hysterectomy (TLH) vs Total Abdominal Hysterectomy (TAH) for the Treatment of Endometrial Cancer (multi-state) $55,500
D Nelson ‘Angiogenesis’ agents alter tumour vasculature and enhance immune cell traffic/function: a novel anti-cancer strategy $60,000
L Abraham Control of CD30 Expression in Anaplastic Large Cell Lymphoma $60,000
R Lake Immunotherapy and Chemotherapy: A Practical Partnership for the Treatment of Cancer $35,000
G Yeoh Mechanisms underlying the transformation of liver progenitor cells $60,000
J Olynyk Investigating the role of pro-inflammatory cytokines on hepatic progenitor cell proliferation in chronic hepatitis B & C $35,500
Total research grants $480,900

Edward and Patricia Usher Student Vacation Research Scholarships
C Leong Expression and purification of pre-B cell colony enhancing factor (PBEF) $2000
J Rampallini Inhibition of osteoclastogenesis and osteoclast signalling pathways by proteasome inhibitors in multiple myeloma $2000
D Tan Preventing the unwanted side effects of the anticancer drug cylophosphamide $2000

B Wyse Identification of p27 binding partners in androgen-treated breast cancer cells $2000
S Murphy Which genes transform liver progenitor cells? $2000
J Ngeow Assessment of anti-cancer potential of plant extract $2000
V Zasun Identifying the function of the novel gene, u200orf21 in prostate cancer $2000
B Knezevic Understanding the role of PACT in human breast cancer $2000

Total vacation research scholarships $16,000

John Nott travelling fund
D Joseph – St Charles Gardner Hospital To invite A/Prof Scott W Menzies and Prof J Thompson to speak at the Royal Australasian College of General Surgeons, WA Branch Annual Scientific Meeting to be held in August 2006. $10,000

Total John Nott travelling fund $10,000

Professorial Chairs
Chair of Palliative Care Research Edith Cowan University $100,000
Chair of Behavioural Cancer Research Curtin University of Technology $125,000
Chair of Clinical Cancer Research University of Western Australia $250,000

Total professorial chairs $475,000

Cancer Research Equipment Initiative
U Kees – Telethon Institute for Child Health Research BD LSRII Flow Cytometry System $187,500
N Lenzo – WA PET Service Surgical Radiation Detection System $55,200
P Klinken – WA Institute for Medical Research Cellscreen $222,675
A Charles – Princess Margaret Hospital Digital microscope $281,000
L Palmer – University of Western Australia Illumina BeadStation 500GX and Genotyping package $153,600

Total Cancer Research Equipment Initiative $899,975

Other research grants
Bone tumour registry $27,000
Children’s Cancer Research Fellowship TVW Institute Child Health Research $15,000

Formative evaluation of a physical activity and nutrition program for Western Australian primary schools $50,000
Travel grants $12,000
Total other research grants $59,000

TOTAL RESEARCH FUNDED $1,940,475

QUEENSLAND CANCER FUND

Research grants
2006-2007
Dr Geoffrey Beadle, Wesley Research Institute The effect of adjuvant chemotherapy on cognitive functioning in early breast cancer $75,000
Dr Lisa Chopin, Queensland University of Technology The role of autocrine ghrelin, a growth hormone releasing peptide, and a novel preproghrelin variant in breast cancer $75,000
Prof Judith Clements, Queensland University of Technology Role of prostatic Kallikreins in vitro and in vivo human bone models of prostate cancer bone metastasis $75,000
Prof Thomas Gonda, Wesley Research Institute Role, and potential for therapeutic targeting, of transcriptional co-regulators $75,000

TOTAL RESEARCH FUNDED $150,000

SUMMARY OF FUNDING 2005-2006

In 2005-2006 the Cancer Council of Western Australia (WACCA) received a total of $10,963,750 in research funding, including $7,459,845 in Cancer Control Research Institute programs. This represents a 16% increase on the 2004-2005 funding. The report details the funding provided to various researchers, institutions, and initiatives, including scholarships, equipment, and travel grants. The report also highlights the support for medical and scientific activities, as well as the impact of the John Nott travelling fund and the various professorial chairs. The Cancer Control Research Institute programs are further detailed, with specific projects and their associated funding. The report concludes with a summary of the research grants awarded, including the Cancer Research Equipment Initiative and other research grants, as well as the Cancer Council of Queensland’s funding. The report provides a comprehensive overview of the research funding awarded by the Cancer Council during the 2005-2006 period.
University of Queensland in transformation by the MYB oncogene

Dr Stuart Kelfie, University of Queensland

The role of DEP-1 as a tumour suppressor in breast cancer

$75,000

Queensland Institute of Medical Research

Prof Anne Kelso, Queensland Institute of Medical Research

Differential regulation of perforin and granzyme gene expression in CD8+ T lymphocytes

$75,000

Functional Importance of ATR-dependent Mre11 phosphorylation in response to stalled DNA replication forks

$75,000

Dr Kaili MacDonald, Queensland Institute of Medical Research

Lineage specific roles of SOCS3 in the regulation of GVHD

$75,000

Prof Dennis Moss, Queensland Institute of Medical Research

A phase I trial on adoptive transfer of EBV-specific cytotoxic T cells to nasopharyngeal carcinoma patients

$118,000

Dr Jin Neužil, Griffith University

Vitamin E analogues as selective modulators of the FGF-FGFR signalling in malignant mesothelioma

$75,000

A/Prof Andreas Obermair, Royal Brisbane Hospital Research Foundation

Total Laparoscopic Hysterectomy (TLH) vs Total Abdominal Hysterectomy (TAH) for the Treatment of Endometrial Cancer

$75,000

Prof Sandra Porceddu, Princess Alexandra Hospital

Post-operative chemo-radiotherapy vs radiotherapy in high risk cutaneous squamous cell carcinoma of head and neck

$75,000

Dr Alison Rice, Mater Medical Research Institute

Fanning the Fire: combination immunotherapy to treat relapsed leukaemia post transplant

$75,000

A/Prof Nicholas Saunders, University of Queensland

The molecular basis for the initiation of squamous differentiation

$75,000

Dr Aaron Smith, University of Queensland

Bludicating PPARGamma regulation of melanocytic cell function and tumorigenesis

$75,000

A/Prof Paul Vasey, University of Sydney

Carboplatin Flat Dosing versus Intrapatient Dose Escalation in First Line Chemotherapy of Ovarian Cancer

$8000

Prof Craig Verity, James Cook University

Experiences of colorectal cancer and oncology services: a rural/urban comparison to identify locational differences

$61,625

Dr Penelope Webb, Queensland Institute of Medical Research

Folate and related micronutrients, folate metabolising genes and risk of ovarian cancer

$75,000

Dr Ming Wei, University of Queensland

Development of a novel gene therapy vector for multiple modalities of tumour killing

$75,000

Dr Joanne Young, Queensland Institute of Medical Research

Characterisation of a novel syndrome of familial colorectal cancer based on the senescent pathway of tumour development

$75,000

Prof Phyllis Butow, University of Sydney

Quality of life and psychosocial predictors of outcome in a population based study of ovarian cancer

$70,870

Dr Maher Gandhi, QIMR

EBV-specific Cytotoxic T Lymphocytes as Tools for Adoptive Immunotherapy for EBV-positive Hodgkin Lymphoma

$73,700

Dr Michael Michael, Peter MacCallum Cancer Centre

Randomised Phase II study of two regimens of palliative chemoradiation therapy in the management of locally advanced Non-Small Cell Lung Cancer 2005-2007

$118,530

Prof David Bowtell, Peter MacCallum Cancer Centre

Molecular epidemiology of ovarian cancer: The Australian Ovarian Cancer Study – Clinical follow-up core.

Intermediate & high risk, resected gastro-intestinal stromal tumours expressing KIT. RCT of adjuvant imatinib mesylate

$111,440

Dr John Smith, University of Sydney

The role of the “deflated” gene in the control of cell proliferation

$73,700

Dr William Warren, James Cook University

Total research grants

$3,210,425

Fellowships

Total Fellowships

$421,059

Epidemiology and Psycho-Oncology Research Programs

Cancer Epidemiology Unit

$1,046,400

Psycho-Oncology Research Unit

$494,048

Queensland Cancer Risk Study

$93,723

Prostate Cancer Supportive Care & Patient Outcomes Trial

$399,416

Total Epidemiology and Psycho-Oncology Research Programs

$2,035,587

Other Research Grants

Queensland Family Bowel Cancer Registry

$50,000

Australian Paediatric Cancer Registry

$58,404

Colorectal Cancer & Quality of Life Study

$55,200
**National Breast Cancer Foundation**

**New South Wales**

- **NBCF Postdoctoral Fellowship**
  - LMO4-DEAF-1 interactions in cellular development and breast cancer
  - $67,500

- **NBCF Scholarship**
  - Viral Oncology of Human Breast Cancer
  - $30,000

**ABCDE**

- **NBCF Concept Award**
  - Call architectural determinants of transcriptional disruption in breast cancer
  - $75,000

- **NBCF Concept Award**
  - Communicating the importance of breast cancer screening via counterfactual thinking messages
  - $74,313

- **Kathleen Cunningham Research Grant**
  - Understanding barriers to effective cross-cultural communication about prognosis of metastatic breast cancer
  - $105,000

- **Kathleen Cunningham Research Grant**
  - Epigenetic activation of c-fms oncogene in breast cancer
  - $73,250

- **Kathleen Cunningham Research Grant**
  - Optimising participation by women with disabilities in mammography screening
  - $67,958

- **Kathleen Cunningham Research Grant**
  - Role of a soluble receptor in regulating proliferation in breast cancer
  - $65,250

**Total NBCF Postdoctoral Fellowship**

- $67,500

**Total NBCF Scholarship**

- $30,000

**Total ABCDE**

- $74,313

**Total Kathleen Cunningham Research Grant**

- $173,500

Total Research Funding:

- $6,692,671

**Australian Behavioural Research in Cancer**

**New Results**

- Centre for Cancer Control Research and Tobacco Control Research Evaluation (TCRE) SA
  - Monograph series (CCCR)
  - The Centre published its 8th monograph on South Australian cancer statistics, entitled Time trends in cancer mortality in South Australia between 1990 and 2011. The monograph showed that cancer now accounts for about 28% of deaths in South Australia. It was reassuring that age-adjusted death rates between 1990 and 2003 showed a 10-year reduction of 12% in males and 8% in females.

- Cancers contributing to reductions in males included those with a primary site of lung (24% reduction), prostate (18% reduction), large bowel (17% reduction) and stomach (26% reduction), whereas cancers contributing to reductions in females included those with a primary site of breast (19% reduction), large bowel (13% reduction), stomach (33% reduction) and cervix (40% reduction).

- Factors responsible for these reductions are considered to include:
  - Male lung cancer – reduced tobacco smoking
  - Female breast cancer – earlier detection through screening mammography and gains in adjuvant therapy
  - Prostate cancer and large bowel cancer – potential treatment gains and earlier detection
  - Stomach cancer – improved refrigeration, potentially reduced infection with Helicobacter pylori, and in some instances, increased consumption of fruit and vegetables and a reduced salt intake.
  - Cervix cancer – increased screening coverage of older women and other high-risk groups.

- Despite reductions in age-adjusted mortality rates for all cancers combined, absolute numbers of cancer deaths are projected to increase by about 9% in the 10 years to 2011, due to increases in population size and ageing. This will impose upward pressure on end-of-life cancer services.

- The health behavioural implications of these mortality trends have been reviewed and opportunities for interventional studies considered.

- Patient and carer perceptions of cancer care study
  - Telephone surveys were conducted with approximately 470 cancer patients being treated at 2 major public hospitals in South Australia and 350 carers of their carers to measure their perception of the care provided to them during admission and at discharge from hospital. Findings suggest that patients and carers perceive the clinical care provided to be very good. Issues that need addressing in terms of improving experiences for both patients and their carers include the provision of more written information, enhanced psychosocial support and better planning and communication around discharge. In general, carers reported less favourable experiences than patients. Results were similar at both hospitals.

**Evaluation of the local government sun protection program**

The local government sun protection survey has been conducted in 1999, 2002 and 2005. These surveys have examined activities undertaken by local governments to enhance sun protection for community members, as well as council employees. Results show some improvements, particularly in relation to councils recognising their role in protecting community members from excess sun exposure. Legislative requirements have resulted in substantial improvements in relation to protecting council workers, however progress in the area of shade creation has been much slower.

Further gains are most likely through taking an advocacy approach at the Local Government Association and recognising their role in protecting community members to enhance sun protection for community members, as well as council employees. Results show some improvements, particularly in relation to councils recognising their role in protecting community members from excess sun exposure. Legislative requirements have resulted in substantial improvements in relation to protecting council workers, however progress in the area of shade creation has been much slower.

Limited funding is a major barrier for some councils. Further gains are most likely through taking an advocacy approach at the Local Government Association and recognising their role in protecting council workers, however progress in the area of shade creation has been much slower.

Evaluation of the 2005 Quit television campaign – "Bubblewrap"

In May 2005, Quit SA aired a new television campaign "Bubblewrap". The commercial featured a pair of lungs made from bubble wrap, with the bubbles being burnt by a cigarette. Responses of smokers to the campaign were very favourable. Comments reflected that the execution of the commercial was effective in communicating its message, and the content of the campaign was well received by the audience. Further gains are most likely through taking an advocacy approach at the Local Government Association and recognising their role in protecting council workers, however progress in the area of shade creation has been much slower.
message itself was seen as important and motivating to prompt quitting.

Cinema Project

The Cancer Council NSW developed an anti-smoking advertisement. The intention was to place the advertisement before movies which are seen by young people and which include considerable smoking. It was hoped that the anti-smoking advertisement would help to "inoculate" young people against pro-smoking depictions of tobacco use in the movies, by raising their awareness and critical analysis of smoking in movies. A controlled trial was established and South Australia administered an arm of the trial. The Cancer Council NSW has the findings.

Keep Left Youth Smoking Cessation Workshop

The Keep Left Youth Smoking Cessation Guide was developed by Curtin University of Technology in Western Australia for the Smoking Cessation for Youth Project. The guide was developed as a resource for school nurses to: encourage students who smoke experimentally or occasionally to quit; reduce or prevent progression to smoking more; and encourage students who smoke regularly to quit or reduce the number of cigarettes they smoke.

Quit SA adopted the guide for use in schools and ran four workshops. Attendees were asked to complete evaluation forms at the end of the workshop. Overall the feedback was positive, the workshops were considered to be a good introduction to the cessation guide, which was widely accepted as a great mechanism for teaching students and staff how to quit smoking. They were also useful in educating staff on ways to implement this guide into their own drug strategy program.

Review of the Australian Quitline Services: in preparation for new cigarette packet health warnings

In March 2006, graphic cigarette packet warnings will be introduced in Australia. In addition to the new graphic warnings, the Quitline number is being displayed prominently on cigarette packets for the first time. This review was undertaken to identify the likely impact of these initiatives on the Australian Quitline Service, to review the Quitline service in its current form and to make recommendations about mechanisms that would enable the Quitline to deliver a responsive, consistent, research based and effective service to smokers in Australia. It was found that Quitline, though administered differently in each state and territory, is more consistent than it is different. The review of the Quitline found that the callers to the Quitline from anywhere in Australia would receive a good level of service, however there was room to improve consistency and service. Recommendations were that a defined set of Minimum National Standards be implemented.

Critics’ Choice

The Critics’ Choice program is an anti-tobacco resource utilised in schools across South Australia. Students were asked to critique 12 commercials and to vote for which commercial they thought would most likely prevent them from smoking. Teachers were also asked to evaluate the program. Results from the teachers’ survey indicate that the resource is easy to use and integrate into school lessons and complements the existing drug and tobacco component of the curriculum. It was found that the Critics’ Choice resource was noted, as well as influenced perceptions about smoking. Despite findings being specific to the commercials included in the 2004 resource, the findings suggest that the Critics’ Choice resource is a valuable educational tool.

n Centre for Behavioural Research in Cancer Control (CBRCC) WA

New UV Index Format

In October 2005 Dr Owen Carter was commissioned by the National Skin Cancer Committee (NSCC) of The Cancer Council Australia and the Bureau of Meteorology to test various UV index display concepts designed for inclusion on the daily weather forecast pages of newspapers throughout Australia. Four concepts were tested with a convenience sample of 300 Perth residents in October 2005. Results strongly favoured the Bell Curve concept over the traditional method of reporting the UV index and its alternatives. The Bell Curve concept performed particularly well as it highlights the variability of UV conditions throughout the day and the importance of solar noon. This format has now been adopted by 48 newspapers around Australia.

Cancer in the workplace

The Cancer Council WA commissioned CBRCC to conduct a series of interviews with people with cancer and their employers, to discuss their experiences of continuing to work while undergoing treatment. The results suggest that a majority of people with cancer chose to continue working throughout their cancer experience, with varying levels of flexibility and support from their employers. What was highlighted by the consultations is the important role the workplace has in facilitating the cancer experience of sufferers by providing a mentally cathartic semblance of continuity while their cancer treatment progresses and ongoing exposure to the social support networks provided by co-workers. Guidelines were developed from the results to facilitate workplace changes that arise when an employee is diagnosed with cancer.

1997-2005 National Quit Report Audit

Under the auspices of the National Quit Coordinators group, CBRCC has received over 350 mainly unpublished research reports from the Quit offices of all states of Australia from 1997-2005. Dr Owen Carter presented a talk entitled “Looking Back, Moving Forward: We’re Not Done With Smoking Yet” which outlined preliminary results from television campaign evaluations. These suggest that: hard-hitting, visceral ads are highly effective; clear, simple messages work better than more complex ones; health risks of smoking, plus promotion of the Quitline in Victoria. These television advertisements predominately featured hard-hitting messages on the health risks of smoking, particularly lung cancer in Victoria. The outcome measure in the analysis was the number of calls to the Quitline for each week and each socioeconomic group for the period January 2001 to March 2004. Socioeconomic status (SES) was derived from the caller’s postcode using the Index of Socio-economic Disadvantage provided by the Australian Bureau of Statistics. The exposure measure was weekly Target Audience Rating Points (TARPs, a standard measure of television advertising weight) for anti-tobacco advertising broadcast in Victoria over the same period. The study found that exposure at 100% was found to be statistically significantly associated with increase in the volume of advertising was the same across socioeconomic groups. The findings indicate that anti-smoking media campaigns can prompt help seeking for quitting smoking equally among people of lower and higher SES.

Visit our website www.cancervic.org.au/cbrc for information about current CBRC research projects, details of our latest publications and access to the CBRC Research Paper Series.

n Centre for Health Research & Psycho-oncology (CHeRP)

A monetary incentive increases postal survey response rates for pharmacists
Men diagnosed with prostate cancer experience a range of psychosocial and physical difficulties and in particular high levels of decision-related distress that can persist for long periods even after treatment has been completed. However, although the benefits of psychosocial interventions for patients with cancer are well accepted, research in this area specifically targeting men with prostate cancer is limited. In response, the Psycho-Oncology Research Unit within the VRCQC, in collaboration with the Northern Section of the Epidemiology of Psychosocial Oncology of Australia, is undertaking a randomised controlled trial of a new support intervention, involving approximately 600 men diagnosed with localised disease.

The support intervention is a multi-component intervention applying therapy strategies proven to be effective in previous research and targeting these to specific challenges men experience in the early diagnosis and treatment setting. This component of the intervention is based on the fact that cancer threat appraisal has been found to be related to clinical decision making and treatment choices and complexity of those choices. Achieving broad reach translation for decision support in cancer care. Cancer Helplines that provide broad access for the public to information and supportive cancer services are now widely available with established services in the UK, Europe, Australia, North America and elsewhere. While these services focus on the provision of high quality patient education and support, people facing cancer-related decisions have yet to be described. Decision support is a key need area in cancer care throughout the cancer trajectory, from cancer risk reduction and prevention, through early diagnosis, diagnosis, treatment and to palliation or survivorship.

In a collaboration with the Ottawa Health Research Institute, focus groups were first held with Cancer Helpline staff in Queensland to identify cancer decisions frequently raised by helpline callers and barriers to addressing decision support needs of these callers. Following this, decision support skills training programs were held with 32 Helpline nurses and allied health professionals throughout Queensland with pre-post assessment of decision support knowledge and skills. The training program consisted of a web-based audio tutorial, a three-hour seminar and was evaluated with pre and post simulated calls and knowledge, attitude and behaviour questionnaires.

After the training program, staff reported increased confidence in providing decision support and more positive attitudes towards decision support as a component of their service. Decision support is set to increase in importance in line with the trend for patients to prefer greater involvement in decision making and increasing treatment choices and complexity of those choices.

This project forms part of a larger program of research which also aims to examine the patterns of care and health-related outcomes for all men diagnosed with prostate cancer in the state of Queensland; and in collaboration with the Queensland University of Technology, examine the genetic biomarkers associated with prostate cancer and their relationship to clinical outcomes.

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Evaluation of the effectiveness of a targeted educational psychosocial workshop for Australian health professionals working in cancer care. This research aimed to evaluate the effectiveness of an educational workshop for oncology health professionals about the clinical practice guidelines for the psychosocial care of adults with cancer. In collaboration with the University of Queensland, a workshop was developed that integrated the guidelines with a stepped care approach to psychosocial care. The workshop included small group discussions and a lecture style format overviewing the psychosocial distress associated with cancer and addressing barriers to support; effective strategies for supporting patients and their families; and the tiered model of psychosocial care.

A total of 107 health professionals participated in this study, representing 12 different cancer centres in Queensland. The majority of participants were nurses from the community, domiciliary, aged care, practice nursing and hospital fields of expertise. Over 93% of participants were female, with a mean of nearly 23 years of clinical experience and a mean age of 48 years. Approximately 53% of participants were not at all familiar with the NHMRC Clinical Practice Guidelines for the psychosocial care of adults with cancer and 40% were somewhat familiar before the workshop. Overall, participants rated the workshop between good and excellent. After the workshop, participants rated their knowledge more highly in the areas of identification of psychosocial risk factors, psychosocial treatment, referral networks within their communities and understanding psychosocial effects of cancer. Participants’ confidence in referring cancer patients to appropriate external resource services and identifying distress were increased.

Extension of this work is planned for 2006.

Clinicians’ attitudes towards prostate cancer support groups

Clinicians’ attitudes have been found to be related to patients’ perceptions of their experiences at prostate cancer support groups. In collaboration with the Australian Prostate Cancer Collaboration, The Cancer Council NSW and The Cancer Council Victoria, a project was undertaken to assess clinicians’ knowledge and attitudes towards these groups. In all, 36 clinicians from across Australia participated in this study. Analysis of the interviews revealed that peer support was rated positively by most clinicians attributable to good knowledge of groups. However, less than one quarter of clinicians regularly refer to support groups. Further analysis is underway.

Prostate Cancer GP Education Program

The Queensland Cancer Fund, in collaboration with the Australian Prostate Cancer Collaboration, Queensland Faculty of the Royal Australasian College of General Practitioners, the Northern Section of the Urological Society of Australasia, the National Cancer Control Initiative and other relevant groups recently developed a new education program and resource to assist GPs in supporting men to make informed choices about protein specific antigen (PSA) testing. The development process took place over a 12 month period with input from a range of health practitioners and experts including urologists, GPs, psychologists, epidemiologists, educationalists, medico-legal experts and consumer groups.

The program was piloted with GPs in two regional and one major metropolitan setting and found the program was effective in increasing GPs’ knowledge and confidence in discussing PSA testing with men. The workshop format and the practice resources were very positively evaluated. The program was subsequently further piloted in Victoria, South Australia and Queensland and is extending nationally. We are now developing the workshop materials into an online learning program for GPs with funding from Andrology Australia and in collaboration with gleaning, the online educational arm of the RACGP, and the Australian Prostate Cancer Collaboration.

Oncology nurses work satisfaction, job stress and preferences for further education

We surveyed 388 nurses working in oncology to assess their levels of job stress and job satisfaction and their preferences for further education in cancer care. Overall, the nurses reported a low intention to leave cancer nursing and more experienced nurses more satisfied and less stressed. A trend was observed for nurses who were working part time to report more stress in managing their workload. Nurses desired more training in pain and symptom management, palliative care, psychosocial aspects of cancer care and communication skills, with a preference for community-based seminars rather than courses in tertiary institutions.

Easily accessed and practice-focused educational upskilling and mentoring provides a potential mechanism for maintaining the oncology nursing workforce.

Optimism and psychosocial outcomes in men newly
planned an extensive evaluation around the smoke-free tobacco retailers in South Australia. (See http://www.laws that affected workplaces, hospitality venues and (1997) introduced a phased in approach to smoke-free Amendments to the Tobacco Products Regulation Act Changes in State Government tobacco regulations Research in the Pipeline the campaign and evaluation will take place in 2006. Up Skin Needs Protection Too”. Further development of proposal are a radio community service announcement, targeting this group. The key deliverables for this campaign are a radio community service announcement, targeting this group. The key deliverables for this proposal are a radio community service announcement, brochure and poster with the concept “Because Grown-Up Skin Needs Protection Too”. Further development of the campaign and evaluation will take place in 2006. Skin cancer campaign targeting Queensland men under 40 years The Queensland Cancer Fund Queensland Cancer Risk Study (2005) found that men aged 20-39 years are at increased risk of sunburn. This is especially true among men who work in metropolitan areas of Queensland. Accordingly, focus groups were held with men to develop a sun safety educational campaign, which has been developed for the 2005/2006 summer, targeted to men aged 20-39 years. The key deliverables for this proposal are a radio community service announcement, brochure and poster with the concept “Because Grown-Up Skin Needs Protection Too”. Further development of the campaign and evaluation will take place in 2006. Research in the Pipeline n TCRE Changes in State Government tobacco regulations Amendments to the Tobacco Products Regulation Act (1997) introduced a phased approach to smoke-free laws that affected workplaces, hospitality venues and tobacco retailers in South Australia. (See http://www. tobaccolaws.sa.gov.au/for more details.) TCRE has planned an extensive evaluation around the smoke-free laws. To date TCRE has evaluated the impact of the communication campaign around phase one of the laws and analysed call volume to a tobacco control Infoline promoted to the public and hospitality industry to answer queries related to the laws. TCRE has also coordinated baseline and follow up surveys with liquor outlets, bar owner/manager to: assess support for and the impact of phase one of the restrictions; support for total restrictions in hospitality venues in 2007; impact on enjoyment, patronage and smoking behaviour. The results will be published in mid 2006. n CBRC Life beyond cancer The Cancer Council WA identified that people with cancer are typically well supported in both the diagnosis and treatment stage of their cancer journey, but experience difficulty accessing sufficient practical and emotional support during the post-treatment stage. CBRC is currently analysing the results of nine focus groups and interviews with cancer survivors discussing their post-treatment experiences with the aim of developing a contemporary reference resource. The resource will be utilised by cancer support volunteers to enable clients to have an improved quality of life beyond their cancer diagnosis and treatment. A report is anticipated by mid-March 2006. Television advertising to increase fruit consumption Professor Rob Donovan and Dr Owen Carter of CBRC have recently been awarded two years of funding by Healthway to investigate using television advertising to increase fruit consumption in Western Australian children. Ms Linda Portsmouth will be using the project to complete a PhD under supervision at CBRC. The study will explore the public health implications of recent breakthrough research which has established that advertising can change what adult consumers remember about their experience of fruit, even without the awareness of the consumer. This advertising effect will be investigated to discover if advertising before consumption can positively enhance children’s anticipation of fruit eating, so making them judge these experiences as more enjoyable than they really are. n CBRC The effects of anti-smoking advertising, tobacco-related press coverage and tobacco control policies on smoking behaviour. This study will relate indices of exposure to tobacco control media and policies to change in monthly smoking prevalence. Monthly population survey data from 1979 to 2005, supplied under special arrangement to CBRC by Roy Morgan Research for the three largest Australian media markets, will be analysed to assess changes in smoking prevalence and consumption. The project will add indices of exposure to televised anti-smoking advertising from state and national campaigns and pharmaceutical company advertising for nicotine replacement therapy, as well as exposure to newspaper coverage on tobacco issues and dates of tobacco policy change (tobacco tax, smoke-free laws etc.) The project will then investigate the role of these two tobacco control efforts on changes in smoking over time among the population baseline and focus group survey respondents in 10 tobacco industry subgroups. The project coordinator for this study is Sarah Durkin. DCIS management since publication of clinical practice recommendations: surgeons’ practices and women’s experiences. Ductal Carcinoma in Situ of the breast (DCIS) now represents 15% of all new cases of breast cancer. Although a benign disease, its diagnosis increases a woman’s risk of developing invasive breast cancer and the goal of treatment is prevention of invasive disease. To assist clinicians in making treatment decisions, the National Breast Cancer Centre (NBCC) published a set of eight evidence-based, clinical practice recommendations for the management of DCIS in September 2003. To help women understand a diagnosis of DCIS and to increase their involvement in treatment decisions, NBCC released a consumer guide to DCIS and its treatment in 2004. This project aims to i) examine the impact of clinical practice recommendations for the management of DCIS of the breast on clinical practice by assessing change in practice between 2002/03 (pre recommendations) and 2006/07 (post recommendations release); ii) determine awareness of and attitudes towards the recommendations among surgeons treating DCIS; and iii) diagnosed with DCIS in 2005/06 examine their experience of the diagnosis and treatment, their understanding of the prognosis for DCIS and awareness of information resources. This project will be coordinated by Clare Davey and Myee Frudin. n CHEPP Tobacco investment practices of superannuation funds Previous research in Australia has demonstrated that community attitudes towards the tobacco industry are highly negative. However, public attitudes towards investments by superannuation organisations in the tobacco industry have never been investigated in an Australian study. It has been argued that one approach to tobacco control involves the economic isolation of the tobacco industry, since any market development by the industry will inevitably result in increased deaths. Superannuation organisations are the biggest investors in Australia, yet little is known about the degree of their involvement in tobacco industry ownership. The study is being conducted by Dr Raoul Walsh and colleagues in two stages. The first stage surveyed 1,158 NSW residents about their views on the issue of investment in superannuation funds. This survey was conducted in November 2004 and revealed that a majority of superannuation fund members object to their fund investing in the tobacco industry. Initial results indicate that the majority of respondents disagreed or strongly disagreed that it is ethical for superannuation funds and life insurance companies to invest in tobacco industry. The second stage is a survey of medium to large superannuation funds in relation to their tobacco industry investments. Currently the first of the two stages of data collection, more than 100 superannuation funds have responded to the survey about their specific investment practices in tobacco and factors which influence decisions about such investments. n VCRCC Documenting the experiences of women in the Amazon Heart Changing Gears motorcycle ride Adventure activities to raise awareness and funds for breast cancer are increasingly popular among breast cancer survivors. One recent activity held in Australia was the Amazon Heart Changing Gears motorcycle ride (http://www.amazonheart.com/). We used a qualitative methodology to investigate the psychological and social experience of this event with particular reference to benefit finding, peer support, survivorship and breast cancer identity. All 22 of the young women in the ride chose to participate in the study which included pre and post ride in depth interviews and journaling during the ride. Longer term follow up is also planned. Analysis of preliminary data is underway. Identification of the psychosocial care needs of people with cancer in regional Queensland (Townsville) using a tiered mop-up care model Research consistently highlights the disparity in psychosocial support care between urban, and regional and rural areas. In 2006 a three phase project in collaboration with The Townsville Hospital (TTH) and James Cook University will address this issue. The first phase will assess existing pathways of care, psychosocial care and the unmet supportive care needs and adjustment outcomes of people with cancer treated at TTH. This will identify targets for improvement in the psychosocial care and management of cancer patients at TTH to guide phase two of the project that includes consultative workshops with key stakeholders to identify ways to improve care. Following this a regional model for psychosocial care will be developed and implemented. The project is due to commence in January 2006, with the implementation of a regional model of psychosocial care to commence in late 2006 and early 2007. A project to identify future directions for QCF smoking prevention programs for primary school children Smoking is common among Queensland school students and the risk of initiating smoking dramatically increases with each passing year from 12 to 17 years of age. In 2005, 25% of students aged 12-17 years smoked and this figure dramatically increases to 25 per cent for students aged 16-17 years. In addition to this, 49% of Queensland secondary school students have tried smoking and this percentage is higher than the national average. Adolescents caught smoking at school report...
that they first tried smoking at a mean of 10 years of age. Prevention programs delivered in middle high school may therefore be too late for preventing smoking in a substantial proportion of students.

In collaboration with The University of Queensland a systematic review of national and international primary school prevention programs will be undertaken in 2006. This project will provide a strong basis for developing a smoking prevention program for Queensland primary schools. Importantly, the project will contribute to the development of a program that represents best practice in the inoculation of children against smoking uptake.

Passive smoking in private places community attitudes project

It is now well established that passive smoking is a direct cause of death and disease, including several types of cancer. Children are particularly vulnerable to passive smoke and exposure can lead to a number of illnesses and diseases in both the unborn and born child. Currently, 40% of Queensland children aged 0-14 live in a home with at least one smoking parent. This exposure to passive smoke results in 21 children under the age of five dying and 380 children under the age of five being hospitalised in Queensland each year.

Significant adverse health effects for both children and adults occur in private places and this area is now considered an emerging issue for tobacco control advocacy programs.

In collaboration with the University of Queensland a Passive Smoking in Private Places Community Attitudes Project will be undertaken in 2006. This project will obtain population based Queensland data on community attitudes and behaviours with regard to passive smoking in private places. This data will inform educational programs, as well as advocacy goals and provide a baseline for ongoing monitoring to further develop these areas.

Pool Cool Pilot Project

Skin cancer is one of the most common cancers in Australia, and it is also one of the most preventable. Few skin cancer prevention programs in outdoor settings, particularly public outdoor swimming pools, have been evaluated in controlled trials.

Because children, families and aquatics staff in Queensland spend many daylight hours exposed to the sun while minimally clothed, sun protection education and provision at swimming sites can significantly affect important preventive behaviours. This study will pilot test the Pool Cool program (Glanz et al, 2002) intervention that has been successful in the US in improving skin cancer prevention strategies at swimming pools. Pool Cool was designed to encourage sun safety at pools in Hawaii and Massachusetts and to increase environmental supports and policies for skin cancer prevention.

Over the 2005-2006 summer, QCF will be piloting a skin cancer awareness program in collaboration with four swimming pools in Townsville and Brisbane. The main objective of the program is to increase awareness, motivation, and sun protection practices among children aged 5-10 who take swimming lessons, their parents, pool staff (lifeguards, pool managers, and swim instructors) and other pool users, such as families or individuals at free or recreational swims.

Specific interventions include: (1) a swim instructor training module; (2) a 10-lesson curriculum on sun safety that is presented by swim instructors as part of their classes; (3) sun protection messages, educational materials, and reminders for children and parents; and (4) provision of environmental supports including policy implementation, sunscreen provision, and signage.

The comparison group for this intervention will be an Active Healthy Living program to promote physical activity and healthy eating.

News

n TCORE

Dr Linda Foreman resigned as Group Executive Research and Development as of 22 December 2005. Professor David Roder has commenced as the new Group Executive Research and Development.

Marianne Hoey and Dr Valerie Sedlty have joined the TCORE team as evaluation officers. Sarah Ellis-Steinbronner joined the team as an Administration Officer. TCORE staff attended the Third Australian Tobacco Control Conference in Sydney last November. Three oral presentations and a poster were given.

n CBCCC

New Director

Professor Rob Donovan stepped down as Director of CBCCC in 2005 but continues to work at the centre on a part-time basis on a number of projects. As of October 2005 he was replaced as Director by Professor Peter Howat, formerly the Head of the Department of Health Promotion at the School of Public Health at Curtin University.

3rd Australian Tobacco Control Conference

Two presentations were made by CBCCC staff at the 32nd Annual Scientific Meeting (ASM). “Crossing Cancer Boundaries” was held at the Brisbane Convention and Exhibition Centre in November 2005.

The meeting was officially opened by Mr Stephen Robertson, Minister for Health Queensland, and COSA President Dr Stephen Ackland, and received traditional blessing from the Maroochy Barambah, Song-woman and Law-woman of the Turrbal People.

The meeting commenced with an excellent symposium on the Multidisciplinary Approach to Cancer Pain delivered by three of our international speakers. Professor Robert Buckman (Princess Margaret Hospital, Toronto, Canada) gave an entertaining talk on emotion handling which set the standard for the rest of the meeting.

Our invited international and national speakers all made significant contributions to the scientific component of the ASM. A record number of abstracts for poster and oral presentations were received resulting in a total of 100 posters and 81 presentations being accepted by the scientific committee. This resulted in high quality presentations, reflected by the significant media exposure received during the meeting. COSA ASM presentations featured in 68 media reports with 32 of those directly mentioning the meeting.

The conference was well-supported by industry and registrants, with 12 major sponsors, 29 exhibitors and over 600 three-day and single-day registrations resulting in a positive financial outcome.

There were a number of new initiatives at this meeting including accepted abstracts being published in the Asia-Pacific Journal of Clinical Oncology, the conference dinner was included in the registration fee which was a resounding success with nearly 440 attending and enjoying the entertainment provided by our Master of Ceremonies Stephen Ackland and the dance band.

A new award, The Tom Reeve Oration Award for Leadership in Cancer Care, was announced with the inaugural recipient being Emeritus Professor Tom Reeve AC CBE. Many delegates chose to stay for the presentation on Friday afternoon, an indication of the esteem in which the cancer community hold Professor Reeve, whose impressive career has spanned 50 years. The Tom Reeve Oration Prize for Leadership in Cancer Care will be awarded each year, recognising a national or international leader in cancer management who has made significant contributions over a long period towards cancer care through research, clinical leadership and/or community service.

Congratulations to all our prize winners:

n Best Oral Presentation – Suzanne Steginga
n Best Abstract – Jeanette Vardy
n Best Preferred – David Ball
n Best Poster – Nicole Reeve
n Student Prize – Jill Larsen

This year’s COSA/MOGA Cancer Achievement Award, sponsored by Pierre Fabre, was awarded to Professor Ray Lowenthal.

I would like to acknowledge the great support provided by Margaret McInerney, Ruth Lilani, the local organising committee, The Cancer Council Australia, Queensland Cancer Fund, the American Society of Clinical Oncology and COSA Council.

We now look forward to the 33rd COSA ASM in Melbourne, to be held in conjunction with the Australian Health and Medical Research Congress, led by Sanchia Aranda and her team.

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CROSSING THE BOUNDARIES: A NEW ERA IN CANCER CONSUMER PARTICIPATION

Report to COSA Annual Scientific Meeting, November 2005

Jane Cruickshank  Steering Committee, Cancer Voices Australia
Email: jane_cruickshank@yahoo.com

A consumer forum has preceded the COSA Annual Scientific Meeting (ASM) each year since 2002. The 2005 consumer forum in Brisbane was planned by a group of cancer consumers, supported by the Queensland Cancer Fund, who developed a program reflecting consumers’ interests and quest for knowledge.

Last year, for the first time, the COSA ASM organising committee invited a consumer to report to the CBRCC in 2005 but continues to work at the centre on a part-time basis on a number of projects. As of October 2005 he was replaced as Director by Professor Peter Howat, formerly the Head of the Department of Health Promotion at the School of Public Health at Curtin University.

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Cancer consumer advocacy in Australia

While still in its infancy, cancer consumer advocacy in Australia has undergone something of a boom in recent years, with leaps in our numbers, capacity and efficacy.

Cancer Voices organisations have been established in NSW, ACT, WA and Victoria in recent years and similar organisations or networks of cancer consumers are developing in each of the other states.

However, many issues of concern to people affected by cancer are national issues, either because they are within the Federal Government’s jurisdiction, or because they cross state/territory ‘boundaries’.

At a meeting in October 2005, hosted by The Cancer Council Australia, representatives of all the existing national (cancer type specific) and state/territory cancer consumer organisations agreed on the need for a new organisation capable of representing the common interests of people affected by all types of cancer at a national level. An interim steering committee was formed to progress its development.

The process may seem slow but we have learned that it is essential to have unity of purpose and intent if this organisation is to be sustainable and effective in the long term. We are increasingly hearing calls from the professional and government sector about “being consumer friendly”, “nurturing consumers’ input”, but these sentiments are meaningless if we don’t have the infrastructure in place to support productive engagement.

Issues from the forum

More than 110 participants from across Queensland and interstate attended the 2005 consumer forum, hearing presentations and discussing issues related to consumer advocacy, future directions in cancer treatment and supportive care.

In the final sessions, participants were invited to raise questions or issues for attention and reportage to the COSA meeting. Those that were obviously of most concern included:

- Inadequacies of the patient transport and accommodation assistance scheme.
- Concerns of long-term cancer survivors – issues that will predominate as survival rates increase.
- Underfunding of palliative care – particularly for community based services.

These are issues about which most clinicians would share consumers’ concerns. Consumers have identified lots of things that need fixing in the health system, but our doctors and nurses could easily double the list of perceived anomalies! Consumers and clinicians have a dual responsibility to engage in effective dialogue and action, to improve the cancer journey for all who have to travel that rocky road.

Crossing the boundaries

Our call to action is for greater collaboration at every opportunity, recognising that health professionals are instrumental in the development and delivery of care for people affected by cancer.

Consumers want support to engage with all key decision making bodies, our specific role being to provide trained and appropriate consumer representatives to voice our views and concerns. One of the barriers to engagement is the way we define ourselves as consumers – it’s meaning is often lost in a kind of bland expansive membership. By definition, a cancer “consumer” representative should be an individual who has personally experienced or who has personally cared for someone with cancer. This definition includes health professionals, who can and do get cancer too.

Change can best be achieved in a spirit of cooperation with all the key stakeholders including health professionals, health departments and all those charged with the delivery of cancer services. We all have a unique perspective to bring to the table and consumers would like to do so on an equal basis. It is up to all of us to engage well.

It’s time we began crossing those boundaries that we all seem so adept at setting in place, and to seek new ways of engaging with each other, by creating partnerships that will energise the way we think about cancer, and give patients and their families a meaningful avenue for informed decision making. To do this, all cancer organisations with a commitment to consumer involvement should adopt the principles of inclusiveness, reaching out, mutual respect, integrity, affirming diversity and, above all, adding value to the overall cancer journey.

Consumer input is not only desirable – it is essential in a democratic society. Indeed it is our combined efforts that will pay the greatest dividends. It is only by crossing these boundaries that we can achieve our shared goals.

news & announcements

Australian of the Year award salutes important win in the war against cancer

Professor Ian Frazer’s selection as Australian of the Year 2006 recognises that while cancer is an increasingly serious global health issue, scientists can significantly reduce cancer mortality through hard work and innovation.

The President of The Cancer Council Australia, Mrs Judith Roberts AO, said Professor Frazer’s development of a vaccine, shown to prevent cervical cancer, could save the 270,000 lives lost to the disease worldwide each year, especially in developing countries without screening programs. She said The Cancer Council Australia was particularly supportive of the award – not only because it helped to raise the profile of Professor Frazer’s groundbreaking work because he was The Cancer Council Australia’s Vice President.

“Professor Frazer has worked tirelessly for 20 years on the development of the vaccine, which is shown to be 100 per cent effective in preventing persistent infection or disease associated with the subtypes of human papilloma virus that cause almost all cervical cancers,” Mrs Roberts said.

“The fact that Professor Frazer also finds time to make an important contribution as Vice President of The Cancer Council Australia, a not-for-profit, community-based organisation, demonstrates the breadth of his commitment to reducing the impact of cancer.”

GPs to have cancer information for patients at their fingertips

Patients will be able to access comprehensive cancer information directly from their general practitioner with a new series of fact sheets launched by The Cancer Council Australia.

The Cancer Council’s CEO, Professor Alan Coates, said GPs were an important source of information for patients who had been diagnosed with cancer or who might have a high cancer risk. “Evidence shows that patients diagnosed with cancer will visit their GP within 24 to 48 hours of diagnosis to get more information,” Professor Coates said.

The fact sheets cover three topic areas: lifestyle and reducing your cancer risk, early detection and after diagnosis. The concise one-page fact sheets are designed for doctors to print off during a consultation.

GP Dr Murray Nixon said the facts sheets would provide patients with very useful information from a trusted source. “It’s important that patients have something to take home to read in their own time,” Dr Nixon said. “When someone has received bad news like a cancer diagnosis, it is very hard for them to take everything in at once. There is also a lot of demand from patients for information about different cancers and how they can reduce their risk, as well wanting information about the different diagnostic tests for cancer.”

The Cancer Council facts sheets will be available directly to doctors using Medical Director clinical software. Medical Director is used by 85%, or around 16,000 computerised general practitioners around Australia. The fact sheets include references to reliable websites and agencies where patients can access more in-depth information.

The fact sheets are also available on The Cancer Council
Cancer Council welcomes announcement of Cancer Australia advisory council

The Cancer Council Australia has welcomed the recent announcement of the advisory council of the Australian Government’s new national cancer agency, Cancer Australia. The announcement follows the appointment in November 2005 of former AMA President, Dr Bill Glasson, as chair of the council.

Chief Executive Officer of The Cancer Council Australia, Professor Alan Coates, said the advisory council featured a good mix of skills and experience and was set to make a valuable contribution to improved cancer control.

Professor Coates said the announcement by the Minister for Health and Ageing, Tony Abbott, was also an encouraging sign that the establishment of Cancer Australia was gathering momentum.

“The advisory council comprises some of Australia’s leading cancer clinicians, healthcare administrators and experts in a number of other fields, who together can provide advice from a variety of perspectives on policy direction and governance,” he said.

“National cancer control policy should be informed by professionals who care for people with cancer, by those who have a personal experience of cancer and by individuals with an expert understanding of public policy. The advisory council of Cancer Australia covers those areas at the highest level.”

Professor Coates said he was particularly pleased to see a number of appointees linked with The Cancer Council Australia. These include his own successor, Professor Ian Olver, who takes over as Cancer Council CEO in May this year, and three representatives of The Cancer Council’s clinical partner, the Clinical Oncological Society of Australia – Professors David Currow, Christobel Saunders and Sanchia Aranda.

“The Government should be applauded for formally seeking advice from fully independent bodies such as The Cancer Council and COSA, which exist exclusively to improve cancer control through support for the general community and for cancer care professionals,” he said.

Australia’s Biggest Morning Tea is now the World’s Biggest Morning Tea

The English cricket team may have taken the Ashes for the first time in over 20 years, but we took their record for the world’s largest morning tea!

Last year was a sad one for Aussie cricket fans but The Cancer Council Australia helped avenge some of our bruised pride by taking the Guinness World Record for the largest simultaneous morning tea, a record formally held by the old enemy.

At last year’s Australia’s Biggest Morning Tea more than 283,000 guests helped to smash the previous mark of 11,760 set by the United Kingdom’s Emerging Role of Sheltered Housing Organisation in 2004.

Last year’s Australia’s Biggest Morning Tea – or should we say the World’s Biggest Morning Tea - raised approximately $7.2 million for cancer research, education programs and support services for those diagnosed with cancer, their families and carers.

On May 25th The Cancer Council will be looking to ensure this record stays where it belongs, right here in the Antipodes, by beating our own record and in doing so ensuring that the English remain a distant second!

But we need the support of the Australian public to make this happen.

“It was only through the hard work of our Australia’s Biggest Morning Tea hosts last year that we were able to break the record and raise much needed funds for our cancer related activities. I would like to congratulate them.

World Cancer Day – My Child Matters

This year 10 million people will be diagnosed with cancer worldwide, with this number expected to reach 15 million by 2020. Cancer causes six million deaths each year, around 12 per cent of deaths worldwide.

World Cancer Day (Feb 4) acknowledged the increasing impact of cancer on people around the world and efforts to improve cancer prevention, treatment and care. The International Union Against Cancer launched a campaign to combat childhood cancer, My Child Matters, promoting early detection and equal access to treatment, particularly in the developing world where childhood cancer rates are higher than in developed countries.

Significant advances have been made in diagnosis and treatment of cancer during the past four decades and the good news is that childhood cancer can largely be cured if detected early. Yet children with cancer who live in developing countries have less than a 50 per cent survival rate, as opposed to 80 per cent for children living in developed countries.

The Cancer Council Australia has called on the Australian Government to recognise cancer control as a regional aid priority. Disparities in cancer mortality rates between people in developed and developing countries are particularly acute among children, with unacceptable numbers dying in poorer nations because of limited access to treatment.

The Cancer Council Australia Sally Birch Fellowship in Cancer Control

The inaugural Cancer Council Australia Sally Birch Fellowship in Cancer Control has been awarded to Dr David Young from the VicHealth Centre for Tobacco Control.

Dr Young will undertake a project in tobacco control,
100 Questions and Answers About Cancer Symptoms and Cancer Treatment Side Effects

JF Kelvin and L Tyson
Jones and Bartlett Publishers (2004)
ISBN: 0-7637-2612-5  216 pages plus index
RRP: $US16.95

This booklet has been written for people with cancer and their families and friends to help them meet the challenges of a diagnosis of cancer presents. It has been written by two experienced oncology nurses from Memorial Sloan-Kettering Cancer Centre who aim to provide information and support to help people with cancer and their families/friends navigate their way from initial diagnosis, through treatment and after treatment is completed.

The book is divided into nine sections with detailed questions and answers relating to the following topics:

- Cancer and cancer treatment
- Getting information and making decisions
- Comfort, activity and sleep
- Blood counts and skin problems
- Problems with breathing, nutrition, digestion and urination
- Appearance and sexual issues
- Neurological problems, fluid retention and blood chemistry
- Other health-related issues
- Emotional and social concerns

The format of the book is easy to follow and a strength of the book is that explanations of medical terms are provide in the margin where it was discussed rather than the reader having to refer to the glossary at the back. This booklet is well written and is a great resource for people with cancer and their families and friends.

Glennys Stallan
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Royal Brisbane & Women’s Hospital

2006 Intravenous Medications: Twenty-second edition

BL Gahart and AR Nazareno
Published by Elsevier MOSBY (2006)
ISBN: 0-323-02415-7 1276 pages plus index
RRP: $57.20

This edition of Intravenous Medications marks the thirty-third year of publication. This reference book is designed for use in critical care areas, at the nurse’s station, in the office, in public health and home care settings and by students. One of the positive aspects of this reference book is the ease at finding information quickly. It must be remembered that the information in this resource is pertinent only to the intravenous use of these drugs.

The preface and how to use the book are set out well and make it easier to navigate your way around this resource. The index is clear and the book provides a glossary of abbreviations, which may be helpful.

The drugs are set out clearly; I particularly liked the fact that dosages were also given for paediatrics and dose adjustments, also a guide for administration and side effects.

In the appendix there is a section on recommendations for safe handling of cytotoxic drugs, information for patients receiving immunosuppressive agents, toxicity grading criteria and recently approved drugs.

I believe that this reference on intravenous medications would be a worthwhile addition to have as a resource in the clinical areas for nurses and medical staff. My only reservation would be that this edition is quite bulky with very large ring binding and would probably only last until the twenty-third edition is published.

Sue Brooks
The Tweed Heads Hospital, NSW

2006 Saunders Nursing Drug Handbook

B Hodgson and R Kizir
Saunders (2005)
ISBN: 1-4160-2539-1 1238 pages plus index
RRP: $68.20

This book is authored by an oncology nurse and a pharmacist who have been working together on medication reference guides and drug handbooks since 1981 and therefore have a wealth of experience between them in this field. The book definitely meets the needs of all nurses working in the clinical setting, who are the books intended audience.

The book is easy to navigate, with drugs arranged in alphabetical order using their generic names. At the start of the book there is an IV compatibility chart which is easy to read and interpret. The chart is also part of the book so it will not be lost. This is followed by a list of drugs by disorder and a colour pill atlas. The next section is devoted to drug classification which provides the following details: name, availability, uses, dosage range and side effects. A simple quick reference guide covers classifications of drugs from anaesthetics to vitamins.

The main section of the book is well set out and in a logical order. Each drug has information on its classification, action, pharmacokinetics, uses, precautions including lifespan considerations, interactions (including drug, herbal, food and laboratory values), availability (presentation), administration and handling, indications/routes/dosage, side effects, adverse reactions/toxic effects, nursing considerations. The nursing considerations section is a great prompt for educating patients about their drugs as well as ensuring...
appropriate interventions are in place.

The final section of the book is dedicated to 17 appendix sections covering such items as calculation of doses, equi-analgesic dosing, herbal therapies and interactions, poison antidote chart and techniques of medication administration. The back cover has some commonly used abbreviations and a dangerous abbreviation list. To complete the package the A – Z of drugs is included on a CD-ROM which is also easy to navigate.

The book contains current information that is easy to read and covers a wide range of drugs and interactions. I find the inclusion of herbal interactions a great addition as many clients do use these medications and this allows us to predict any adverse events ahead of time and look at alternatives.

I highly recommend this book to any oncology nurse or medical officer for a concise yet comprehensive overview of current medications, their actions and interactions. This book will be of benefit on a daily basis.

Sue Perrot
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A Good Death: On the Value of Death and Dying
L Sandman
ISBN: 0-335-21411-8 166 pages plus index
RRP: $54.95

Audience: A Good Death on the Value of Death and Dying is part of a series investigating death in late modern culture. The series editor identifies students of death, dying and bereavement and anyone with an involvement in palliative care research, service delivery and policy development as target audience. However, death occurs in all health care settings and it would be of interest for anyone caring for dying people.

Purpose: There are many ideas of what a good death constitutes; some of them play an important normative role in palliative care. This influences the attitude of carers' and care provision towards dying people. Some of the ideas on how a good death can be achieved evolve around a certain mind-set, that one has to make certain preparations or that certain features are necessary in order to achieve a good death. Some examples of normative aspect are that a good death is consistent patient's former or present values and aims, death should be meaningful, patients should die with dignity and awareness is preferred to denial of death. Good death is also associated with ideas of acceptance, self-controlled death, death without suffering, rituals of death, completion of death, life review and a peaceful death. The fundamental question this book attempts to answer is: if we adopt these ideas, will they do good and benefit people?

Content: The text is an abridged and revised version of the author's doctoral dissertation. It is well structured, includes six chapters, the first outlining the underpinning ethics and values. In further chapters the period of dying, global features of death and dying, facing death, preparation to die and the environment of dying and death are discussed.

Highlights: The book is academically written, but use of personal language allows for engagement in the detailed arguments and well defined ideas. The detailed attention to definitions and development of ideas provide clarity and depth to the text. In the general health and palliative care literature underpinning values are rarely subject to discussion and reading this book provides an opportunity to examine ones own values and norms about what a good death constitutes.

Limitations: The author acknowledges that the choice of ideas on good dying is limited to ideas from a modern Western palliative care context. Although consistent within the context, readers with a different cultural perspective might find some of the theoretical assumptions less convincing.

Comment: The central message of the book is that we need to be aware that professional framing of notions of a 'good death' should be carefully considered. Patient centered-ness and respect for autonomy can be eroded around a certain mind-set, that one has to make certain preparations or that certain features are necessary in order to achieve a good death. Some examples of normative aspect are that a good death is consistent with patient's former or present values and aims, death should be meaningful, patients should die with dignity and awareness is preferred to denial of death. Good death is also associated with ideas of acceptance, self-controlled death, death without suffering, rituals of death, completion of death, life review and a peaceful death. The fundamental question this book attempts to answer is: if we adopt these ideas, will they do good and benefit people?

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The Biology of Skeletal Metastases

ET Keller and LWK Chung (eds)
US$180.00

Several types of cancer, including breast, prostate and lung, have a propensity to metastasise to bone, causing severe morbidity and mortality, for which there are no effective cures. Skeletal complications are also a major problem for haematopoietic malignancies such as multiple myeloma and some lymphomas. In Australia, of the 36,000 people who will die of cancer each year, two-thirds will have skeletal involvement and many will suffer from hypercalcaemia or the debilitating pain caused by spinal cord compression and bone fractures of skeletal disease. Most patients with advanced breast cancer or prostate cancer will experience complications caused by bone metastases. Given that approximately one in ten women will develop breast cancer in their lifetime and a similar number of men will develop prostate cancer, the scale of the problem reveals an urgent need to relieve the suffering of these patients. Current treatments are largely palliative.

The lack of effective therapies stems largely from a lack of understanding of the process of metastasis to bone and is confounded by a paucity of clinically relevant models of bone malignancy. The editors of this book, Doctors Evan Keller and Leland Chung, set out to address these issues by inviting top researchers to write review chapters on their areas of expertise.

Issues that should be covered in a comprehensive review of the topic include the biology of normal bone, the basic biology of metastasis and the interactions between tumour cells and stromal tissues within bone. Molecular events and genes specific to particular types of cancer in bone and potential therapies are also important. Most of these topics are covered in a comprehensive way, with an excellent overview of the process of metastasis to the extent that we understand it today.

Animal models of metastasis to bone are infrequent and imperfect. No transgenic mice that develop spontaneous metastasis to bone yet exist and very few transplantable mouse tumours metastasise spontaneously from their orthotopic site (the mammary gland for breast cancer or the prostate gland for prostate cancer) to bone. For breast cancer, one transplantaible model has been reported but for prostate cancer, the few tumour lines that will colonise bone usually form osteolytic lesions rather than the osteoblastic lesions seen in patients. This topic is reviewed well in the book and reveals the difficulty of studying a process using imperfect animal models.

Genes implicated in the process of metastasis to bone, including PTM, matrix metalloproteinases, endothelins, type I collagen and MIP-1a are reviewed in detail. Two chapters are dedicated to therapy for bone disease. Bisphosphonates are now widely used in a palliative setting and are the only effective therapy for slowing bone destruction. New treatments, based on inhibiting the RANKL/RANK axis are under development and are mentioned briefly in another chapter. A comprehensive overview of gene therapy for prostate cancer metastasis lists a large number of clinical trials underway, offering hope for effective therapy.

Whilst it is difficult in a book of this size to cover all topics pertinent to bone metastasis, an overview of normal bone biology would have been a valuable addition. This topic is covered in part in the chapter on the contribution of RANKL/RANK and osteoprotegerin to skeletal metastasis, but other aspects on regulation of normal bone are not considered. Also, the major focus of the book is on prostate cancer, possibly reflecting the research interests of the editors.

Overall, this text offers an excellent summary of the state of play of our knowledge of skeletal metastasis, pointing clearly to the difficulties of understanding and treating bone disease.

Robin L Anderson
Cancer Biology Laboratory
Peter MacCallum Cancer Centre

Breast Cancer: A Practical Guide

3rd Edition

OE Silva, S Zurrida (eds)
Elsevier Saunders (2005)
ISBN: 0-7020-2744-8 625 pages plus index
RPP: $95.00

As suggested by the title, this book serves as a very useful ‘practical guide’ or handbook for all clinicians working in the field, researching or studying the various areas of breast cancer. The style and format is such that the key concepts are emphasised in a very succinct and comprehensive manner, using dot points and underscoring of pertinent words and phrases.

Topics covered include the full spectrum of breast disease with the first chapter providing excellent information on benign disease with descriptions of the common conditions such as cysts and fibroadenomas to less common conditions such as Mondor disease and Harmartomas. Topics in other chapters include an interesting history of breast cancer, followed by topics such as epidemiology, risk factors, screening, imaging studies, evaluation of palpable breast mass and nipple discharge, breast pathology, staging and prognostic factors. Invasive cancer, carcinoma in situ and non-invasive cancer are also discussed and provide information relating to the various treatment modalities and clinical care across the disease trajectory. The last chapter highlights issues in breast cancer liability which may be more reflective of the American health and legal systems, nevertheless, providing ‘food for thought’ for the Australian health professional.

Psychosocial issues in breast cancer are also covered, with insightful information on breast cancer and depression and menopausal symptoms and their management, providing health professionals, in particular breast care nurses, with very useful and up to date information. The discussion of these psychosocial issues highlight the need to focus on supportive as well as clinical care in order to optimise care for patients along the different stages of the cancer journey.

Unusual presentations are covered in the final section of this book with chapters on Paget’s disease, breast cancer and pregnancy and male breast cancer. This is useful as health professionals are often challenged in the care of patients presenting with these features.

A great feature of this text is the manner in which the data and information is quoted and referenced all on the same page – essentially providing the reader with a comprehensive literature review and a synopsis of data from relevant high quality peer-reviewed articles and papers published as recently as 2005. This makes it possible for the reader to further search out a reference with ease if desired.

The book has many excellent contributions from medical experts from the US and Europe. It concludes with three appendices containing information on the national breast cancer support organisations, support groups in the US and a list of charges and costs related to breast cancer treatment in the US and Europe. As such, the Australian reader would find this information locally irrelevant, however the web-based organisations listed can be of global interest.

I have no reservations in recommending this book, as described by the authors, as an excellent ‘bedside’ reference and compendium of breast cancer information for all health professionals working in, or who may have an interest in this illness.

Tina Griffiths
Peter MacCallum Cancer Centre, Victoria

Cancer in Context: A Practical Guide to Supportive Care

J Brennan (in collaboration with C Moynihan)
ISBN: 0 19 851523 1 417 pages plus index
The stated purpose of the book is to broaden the field of psychosocial oncology beyond a focus on the usual psychological indicators of depression and anxiety, to incorporate an understanding of the cancer illness within the sociological context of those affected by it. Much of the research for the book was undertaken during Brennan’s sabbatical at the University of Melbourne.

The target audience of the book is healthcare practitioners, particularly the psychosocial members of the multidisciplinary team, psychiatrists, psychologists and social workers. It aims to improve clinicians’ understanding of the diversity and individuality of the patients in their care, as well as offering suggestions and strategies for responding to their supportive care needs.

It is a substantial volume of seven chapters and two appendices. The chapters cover the Human Context, Personal Context, Other People, Social Context, Clinical Context, Communication and Professional Context. The first of the appendices offers a brief descriptive summary of 21 self-report assessment tools which are commonly used in research studies to measure psychological distress and quality of life. There is a handy reference list to the original sources of these measures. The second appendix is the reproduction of a booklet developed by the author entitled Managing the Stress of Cancer: A Psychosocial Guide for People with Cancer. This resource can be copied or adapted for use with patients and their carers, without copyright restriction. It is potentially a useful resource, although similar in form and content to a number of other readily available publications.

Throughout the book there is an awkward juxtaposition between textbook and practice guide, as the authors attempt to marry their practical suggestions for clinicians with the theoretical underpinnings and evidence for these suggestions. The chapters contain overlapping information, which is cross-referenced, but nevertheless there is constant repetition, which many readers may find irritating and which detracts from the overall readability and appeal of the book.

The first four chapters each commence with a lengthy sociological discourse as background understanding to the complex manner in which individuals perceive and respond to the diagnosis and treatment of cancer. These somewhat verbose and repetitive introductions are followed, at the end of each sub-section, by concise dot-point summaries of “healthcare implications”, which provide useful ideas and strategies for clinicians to better meet the psychosocial needs of their patients. It is by sifting through these sections that clinicians will find best value from this book. Topics such as talking to children, the relationship between families and the healthcare team, gender and racial differences, and dealing with sexual problems are covered in a thorough and practical way, although there is nothing new here for the experienced clinician. One of the strengths of the book is the extensive reference list at the conclusion of each chapter.

There is thoughtful discussion about marginalised social groups such as homeless people, racial minorities, refugees and asylum seekers. However, some of the suggestions for improving the provision of cancer care to these sub-groups are simply unrealistic in already over-stretched and under-resourced oncology treatment centres. The resources required to establish outreach teams to address the needs of the homeless, as one example suggested by the authors, is not likely to be seen as a high priority.

Chapters 5, 6 and 7 move on to the realities of working with patients and their carers in a variety of contexts and settings; it is these chapters which will hold the most appeal for healthcare workers in the front-line of cancer service delivery. There is extensive coverage of the psychosocial stresses associated with all treatment modalities throughout all stages of the cancer journey and a particularly comprehensive chapter on communication skills. The book concludes with consideration of familiar and challenging issues for professionals: stress and burnout for oncology practitioners, consumer participation in cancer care, complementary therapy and alternative medicine, informed consent and colluding with denial.

Overall, as a textbook, there is useful and relevant information to be gleaned from this volume, particularly for clinicians new to the field and for those with an interest in the sociological perspective. However, as a practice guide, the more concise content, layout and presentation of the various and widely available NHMRC guidelines about specific cancers and psychosocial care make them a preferred source for evidence-based practice in psycho-oncology.

Kim Hobbs
Westmead Centre for Gynaecological Cancer
Westmead Hospital, NSW

**Contexts of Nursing (2nd edition)**

J Daly, S Speedy and D Jackson
Churchill Livingstone (2006)
ISBN 0-795-3746-3 376 pages plus index
RRP: $60.00

This popular text, in its second edition after numerous reprints of the first edition, has been updated to encompass current trends in nursing in Australia and New Zealand. Edited and written by a host of eminent nursing academics and theorists, it is aimed at undergraduate nurses in both of these countries. As such, its content (including aspects of nursing history, current technologies, health ethics and law, and the sociocultural and political concerns of the profession) is exhaustive and authoritative and should be the impetus for a great deal of critical reflection on the part of nursing students about to enter the profession. The emphasis on Australian authors and practice contexts may, however, be disappointing for those readers from New Zealand that the text also purports to target (there is only one jointly authored chapter by two New Zealand contributors in the text).

In terms of structure, the text is consistent and easy to follow. Each chapter contains learning objectives, key words and four concluding questions for reflection that provide useful topics for tutorial debate. While the relevance of the text to practising oncology nurses (unless they are undertaking an undergraduate degree) is doubtful, the text is highly appropriate for undergraduate baccalaureate programs that aim to promote critical thinking in our future health professionals.

Alexandra McCarthy
School of Nursing and Midwifery
Griffith University, Queensland

**Fast Facts: Breast Cancer 3rd Edition**

M Baum, H Schipper
Health Press (2005)
ISBN 1-903794-62-2 143 pages plus index
RRP: $44.00

When studying English literature at high school, I found a brilliant series of books, called Brody’s Notes. These books enabled me to avoid reading any other books. They gave me the key messages and character developments. This short text offers the same for those looking for an introduction to the key areas of breast cancer. The introduction to the book speaks of choice and consumerism in modern medicine and this book definitely contributes to this area.

The chapters cover epidemiology, risk, pathology and diagnosis and move through treatment options for the various stages or presentations of breast cancer. It finishes off with chapters on follow-up, rehabilitation, clinical trials and looks forward to future trends within the field of breast cancer.

The text is concise and punchy, using diagrams, tables, graphs and colour plates to get the information across in a clear and accessible way. It manages to offer insight into often poorly comprehended areas such as the perception of risk and breast cancer genetics. Even though the book is small it is well referenced and where
it runs out of space within the chapters, it recommends texts and websites for further reading, highlighting in particular the seminal readings related to each chapter.

In conclusion, this book would be an excellent quick-reference text for general practitioners, but also as an introductory text for junior doctors and nurses working in oncology and surgical areas. It could also be useful for lay people looking for more in-depth knowledge or within the library of support groups: for these populations, a glossary would be a useful addition for future editions.

Post Script: I didn’t pass English literature at high school!

Meredith Brien
Shoalhaven Oncology Day Care Centre, NSW

**Hematology – Basic Principles and Practice (4th Edition)**

R Hoffman et al.
Churchill Livingstone (2005)
ISBN: 0-4430-6628-0  2743 pages plus index
RRP: $420.20

This is an impressive text, both clinically and aesthetically. The book boasts 295 additional contributors and 19 new chapters from the 3rd edition, with excellent colour plates and graphics, which greatly contribute to the understanding of the issues discussed.

The book is divided into 162 chapters, which are grouped into nine sections. These parts build from the cellular and molecular basis of haematology, through immunology and the biology of haematopoiesis and the disorders caused by its dysfunction. Latter sections are devoted to transfusion, transplantation medicine and haemostasis and thrombosis. Each part builds through a series of chapters, developing the themes and by including function, dysfunction and the management of that dysfunction within each section reduces the need to reintroduce the subject in each chapter. The text also contains information on wider multidisciplinary care issues, with chapters on nutritional and psychological aspects of haematological illness, as well as brief chapters on palliative care and late effects issues caused by both the disease and its treatment.

The foreword from Professor Sir David Weatherall states this is a textbook for haematologists; but in its organisation and presentation it is truly accessible to all levels of clinician in the field of haematology. The introductory passages to each chapter provide clear and concise overviews, which are supported with explanatory text boxes, tables and diagrams throughout. The usefulness of this text is further demonstrated by the inclusion of practical clinical elements such as the management of transfusion reactions, pain and nausea management and technical insights into bone marrow aspiration and slide preparation. There is a whole, but rather brief chapter on intravenous device management, which includes a rather scant paragraph on the management of the extravasation of vesicant chemotherapy agents. This latter chapter appears a little out of place, peculiarly the details of acceptable bacteraemia rates and the correct antiseptic cleaning solutions to use!

The back cover blurb suggests that this text will enable the clinician to “keep pace with today’s advances” and “encompasses everything you need to know in this fast changing field” and by and large, I think this book lives up to this hype. The editors do, however, acknowledge the possible limitations of a book which is published every five years in meeting these claims by providing weekly online updates to the electronic format. I do feel that some subjects are covered in far greater depth than others and the reader should be aware that the more brief chapters, which cover elements of multidisciplinary care are perhaps provided to contribute to a general overview of the management of haematological illness rather than being comprehensive in themselves.

In conclusion, I think this book would provide an extremely valuable resource in the library of any haematology oncology department, particularly for its ability to provide useful information to a wide range of practitioners, from students to consultant haematologists.

Bill Jansens
Shoalhaven Oncology Day Care, NSW

**Manual of Paediatric Haematology and Oncology 4th Edition**

P Lanzikowsky
ISBN: 0-12-088524-7  806 pages plus index
RRP: $263.45

This book provides an excellent, concise up-to-date source of basic medical information on both malignant and non-malignant paediatric haematology and oncology.

The haematological content covers topics such as classification and diagnosis of anaemia in childhood, anaemia during the neonatal period, iron deficiency anaemia, megaloblastic anaemia and haemolytic anaemia. There is a chapter on haematological manifestations of systemic illness, bone marrow failure and polycythaemia. Disorders of the white blood cells, disorders of platelets and disorders of coagulation also have separate chapters.

Each of the common paediatric oncological conditions have stand alone chapters. Each condition is described under headings including incidence, pathology, immunophenotypic features, genetics, clinical features, anatomic site, diagnosis, staging, prognosis and treatment modalities. This format is user friendly and makes finding specific information associated with each disease very easy.

Clinical trials from the Children’s Oncology Group (COG) of the United States form the basis of the chemotherapy treatment protocols described throughout the text. As most of the paediatric oncology treatment centres in Australia and New Zealand are now members of COG this means that this information is highly applicable to practice.

Suggested readings are located at the end of each chapter. These reading are particularly useful for some of the less common paediatric malignancies such as juvenile myelomonocytic leukaemia, myelodysplastic syndromes and myeloproliferative disorders. The inclusion of a chapter on miscellaneous tumours and haemoglobinopathies syndromes is also useful and often neglected in many texts.

The chapter on Late Effects utilises a body system approach and lists potential late effects associated with each treatment modality. Unfortunately the psychosocial impact of cancer on the child does not rate a mention.

The chapter on supportive care and management of oncological emergencies focuses on medical management and provides a good basis for the development of nursing management strategies. Specific topics in the supportive care section include management of infectious complications, prophylactic antibiotics, blood component therapy, haemopoietic growth factors, prevention of organ toxicity, pain management, management of nausea and vomiting and nutritional support. One of the most disappointing aspects of the book is that psychosocial support gets five lines in the entire text and does not have any suggested readings.

This edition includes significant revision of the chapters on disorders of white cells, lymphoproliferative disorders, myeloproliferative disorders, myelodysplastic syndromes and bone marrow failure. The chapter on disorders of coagulation has been totally re-written to incorporate the extensive advances in thrombosis management.

The language used throughout makes the book a useful reference for all health professionals. This is further enhanced by the use of tables, algorithms and flow diagrams which are used extensively throughout the text to summarise investigation and management strategies.

This book would be an excellent reference text for all health professionals involved in the care and medical management of a child with a haematological or
BOOK REVIEWS

Multiple Myeloma and Related Disorders
G Gahrton, B Durie and D Samson
Arnold (2004)
ISBN: 0-340-81010-6  451 pages plus index
RRP: £125.00

In the broader spectrum of cancers, even in the group of blood and bone marrow cancers, myeloma is a rare cancer. This 466 page hardcover disease-specific book would ideally be suited to haematology or medical oncology specialists-in-training. Those working in haematology would recognise the significant recent advances in our knowledge of the nature of myeloma and its treatments (notably targeted therapies, as demonstrated by the recent PBS listing in Australia of Thalidomide, staking its mark as a standard therapy for recurrent disease).

Consistent with the backgrounds of the editors, the contributors bring reputable international perspectives to the range of content within the text, including researchers, scientists and clinicians from the UK, the US, Europe and Australia.

The text contains very logically-organised content, with particularly detailed and well presented chapters that include abundant diagrams, tables, images and key references. It would be an excellent resource for those working in the field of myeloma and related disorders.
**INTERNATIONAL**

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<td>2006</td>
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<tr>
<td>27 Feb – 1 Mar</td>
<td>Proteogenomics for Diagnosis, Imaging and Therapy of Cancer</td>
<td>California, United States</td>
<td>Sidney Kimmel Cancer Center Conference Dr. Albert Ossannoth or Dr. Jan Schnei der 7916 Convoy Court 92111–1212 San Diego Tel: +1 858 560 9921 Fax: +1 858 565 996 5 E-mail: <a href="mailto:skcco@congressandiego.com">skcco@congressandiego.com</a> Web: <a href="http://www.skc.org/SCC_conf.asp.html">www.skc.org/SCC_conf.asp.html</a></td>
</tr>
<tr>
<td>2-3</td>
<td>The Role of Endoscopy in The Management of Gastrointestinal Neoplasia</td>
<td>Stresa, Italy</td>
<td>European School of Oncology (ESO) Milano, Italy Tel: +39 02 5854 451 Fax: +39 02 658 1455 Email: conferences@es oncology.org Web: <a href="http://www.es">www.es</a> oncology.org/esc</td>
</tr>
<tr>
<td>3-4</td>
<td>Therapeutic Advances in the Treatment of Gastrointestinal Malignancies</td>
<td>Arizona, United States</td>
<td>The Center for Biomedical Continuing Education Zach Leonard 1707 Market Place, #350 73064 Irving Tel: +1 214 260 9024 Fax: +1 214 260 0408 E-mail: drchris@the box.com Web: <a href="http://www.thebox.com/home.asp">http://www.thebox.com/home.asp</a></td>
</tr>
<tr>
<td>4-8</td>
<td>2006 Annual Meeting on Women's Cancer</td>
<td>New Orleans, United States</td>
<td>Society of Gynecologic Oncologists (SGO) SGO Chicago Headquarters Office 401 North Michigan Avenue 60611 Chicago Tel: +1 312 331 4099 Fax: +1 312 673 6959 E-mail: <a href="mailto:sgo@zoo.org">sgo@zoo.org</a> Web: <a href="http://www.sgo.org/meetings/2006Annual/">www.sgo.org/meetings/2006Annual/</a></td>
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<tr>
<td>8</td>
<td>North American Conference on UV, Vitamin D and Health</td>
<td>Toronto, Canada</td>
<td>Canadian Cancer Society Heather Logan 10 Alcorn Avenue, Suite 200 73064 Irving Tel: +1 214 260 0632 Fax: +1 214 260 0890 E-mail: drchris@the box.com Web: <a href="http://www.thebox.com/meetings/2006Annual/">http://www.thebox.com/meetings/2006Annual/</a></td>
</tr>
<tr>
<td>8-9</td>
<td>Collaborating in Cancer Research</td>
<td>Cardiff, United Kingdom</td>
<td>Wales Cancer Institute Miss I Price c/o Wales Cancer Bank Cardiff Medi centre Heath Park Cardiff CF144U Cardiff Tel: +44 (0)29 2082108 Fax: +44 (0)29 2086871 E-mail: info@collaboratingin cancerresearch.com Web: <a href="http://www.collaboratingin">www.collaboratingin</a> cancerresearch.com/</td>
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<tr>
<td>10-12</td>
<td>3rd Annual Winter Lung Cancer Conference</td>
<td>Florida, United States</td>
<td>The Center for Biomedical Continuing Education Megan Ohnig se 1707 Market Place Blvd., Ste. 370 73064 Irving Tel: +1972 929 1900 Fax: +1 972 929 1901 E-mail: info@the box.com Web: <a href="http://www.thebox.com/currentactivities.asp">www.thebox.com/currentactivities.asp</a></td>
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<tr>
<td>12-14</td>
<td>International Conference on Stem Cells and Cancer</td>
<td>Heidelberg, Germany</td>
<td>German Cancer Research Centre Otmar D. Wiestler Neuenheimer Feld 280 69120 Heidelberg Tel: +49 6221 28281 or 242163 Fax: +49 6221 282840 E-mail: <a href="mailto:u.schoettler@dkfz.de">u.schoettler@dkfz.de</a> <a href="mailto:a.proksch@dkfz.de">a.proksch@dkfz.de</a> Web: <a href="http://www.imedex.com/medical/other/Announcements/Details/CALENDAR">www.imedex.com/medical/other/Announcements/Details/CALENDAR</a> OF MEETINGS</td>
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<tr>
<td>12-15</td>
<td>3rd International Conference on Translational Research and Pre-Clinical Strategies in Radiation Oncology (ICTR2006)</td>
<td>Lugano, Switzerland</td>
<td>NDDO Oncology Research Foundation and European Society for Medical Oncology (ESMO) c/o TAT2006 Conference Secretariat PO Box 77, 3480 DB Harmelen Tel: +31 348 567 607 Fax: +31 348 446 057 E-mail: <a href="mailto:congress@nondo.org">congress@nondo.org</a> Web: <a href="http://www.nondo.org">www.nondo.org</a></td>
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<tr>
<td>12-15</td>
<td>10th Congress of Asian Association of Endocrine Surgeons (AAES)</td>
<td>Hong Kong, China</td>
<td>University of Hong Kong Medical Centre Department of Surgery Queen Mary Hospital, Pokfulam, Hong Kong Tel: +852 288 18 032/3/5 4235 Fax: +852 288 18 1186 Email: <a href="mailto:aaes@hku.hk">aaes@hku.hk</a> Web: <a href="http://www.aase2006.org">www.aase2006.org</a></td>
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<tr>
<td>13-14</td>
<td>Imaging in Oncology, 2nd Conference</td>
<td>London, United Kingdom</td>
<td>SMi Conferences Ltd James Kennedy The Clove Building Magazine Street SE1UN London Tel: +44 (0)72 7827 618 Fax: +44 (0)72 9000 712 E-mail: <a href="mailto:jkennedy@smi-online.co.uk">jkennedy@smi-online.co.uk</a> Web: <a href="http://www.smi-online.co.uk">www.smi-online.co.uk</a></td>
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<tr>
<td>16-18</td>
<td>4th International Symposium on Targeted Anticancer Therapies</td>
<td>Amsterdam, Netherlands</td>
<td>NDDO Oncology Research Foundation and European Society for Medical Oncology (ESMO) c/o TAT2006 Conference Secretariat PO Box 77, 3480 DB Harmelen Tel: +31 348 567 607 Fax: +31 348 446 057 E-mail: <a href="mailto:congress@nondo.org">congress@nondo.org</a> Web: <a href="http://www.nondo.org">www.nondo.org</a></td>
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<tr>
<td>21-25</td>
<td>5th European Breast Cancer Conference (EBC)</td>
<td>Nice, France</td>
<td>The Federation of European Cancer Societies (FECS) Brussels, Belgium Tel: +32 2 755 0205 Fax: +32 2 755 0202 E-mail: <a href="mailto:fecss@fe.css">fecss@fe.css</a> Web: <a href="http://www.federcancer.org/ebc6">www.federcancer.org/ebc6</a></td>
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<td>23-27</td>
<td>7th International Symposium on Diagnosis &amp; Treatment: Head &amp; Neck Skin Cancer</td>
<td>Amsterdam, Netherlands</td>
<td>The Netherlands Cancer Institute - Antoni van Leeuwenhoek Hospital Department of Head and Neck Oncology and Surgery - A.M. Balm/M.W.M. van den B Plesmanlaan 121 1066 CX Amsterdam Tel: +31 20 512 2550 Fax: +31 20 512 2554 E-mail: <a href="mailto:info@nko.nl">info@nko.nl</a> Web: <a href="http://www.nkoinh.nl/cancer/7thrhealcan.htm">www.nkoinh.nl/cancer/7thrhealcan.htm</a></td>
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## CALENDAR OF MEETINGS

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<tr>
<th>Date</th>
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<td>27-29</td>
<td>Prevention and Treatment of Tobacco Related Cancers under the framework of the American Russian Cancer Alliance</td>
<td>Moscow, Russia</td>
<td>N N Blökhin Russian Cancer Research Centre</td>
<td><a href="mailto:info@aacr.org">info@aacr.org</a></td>
<td><a href="http://www.aacr.org">www.aacr.org</a></td>
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<tr>
<td>30-31</td>
<td>4th International Conference on Teenage and Young Adult Cancer Medicine</td>
<td>London, UK</td>
<td>Teenage Cancer Trust</td>
<td><a href="mailto:info@tct2006conf.com">info@tct2006conf.com</a></td>
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<tr>
<td>April</td>
<td>European Association for Cancer Research 19th Annual Meeting</td>
<td>Budapest, Hungary</td>
<td>Federation of European Cancer Societies</td>
<td><a href="mailto:info@eaccr.org">info@eaccr.org</a></td>
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<td>1-5</td>
<td>American Association for Cancer Research (AACR) 97TH Annual Meeting</td>
<td>Washington DC, United States</td>
<td>American Association for Cancer Research (AACR)</td>
<td><a href="mailto:info@aacr.org">info@aacr.org</a></td>
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<td>5-9</td>
<td>The American Society of Breast Surgeons 7th Annual Meeting</td>
<td>Baltimore, United States</td>
<td>The American Society of Breast Surgeons</td>
<td><a href="mailto:info@asbrst.org">info@asbrst.org</a></td>
<td><a href="http://www.asbrst.org">www.asbrst.org</a></td>
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<tr>
<td>8-11</td>
<td>4th International Society of Paediatric Oncology (ISPOD) Asia Conference</td>
<td>Shanghai, China</td>
<td>Shanghai Children’s Medical Center – Dept of Pediatric Hematology-Onco</td>
<td><a href="mailto:info@ispod.org">info@ispod.org</a></td>
<td><a href="http://www.ispod.org">www.ispod.org</a></td>
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<tr>
<td>20-22</td>
<td>5th European Oncology Nursing Society (EONS) Spring Convention</td>
<td>Kiev, Austria</td>
<td>EONS – EONS Spring Convention</td>
<td><a href="mailto:info@eons.org">info@eons.org</a></td>
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<td>28-29</td>
<td>6th Annual New Strategies in the Breast Cancer Conference</td>
<td>Philadelphia, United States</td>
<td>The Center for Biomedical Continuing Education</td>
<td><a href="mailto:info@thebce.org">info@thebce.org</a></td>
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<tr>
<td>28-30</td>
<td>1st Scientific Conference of Baltic Society for Pediatric Oncology and Hematology</td>
<td>Vilnius, Lithuania</td>
<td>UAB CONBALTAS</td>
<td><a href="mailto:info@thebce.com">info@thebce.com</a></td>
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<td>May</td>
<td>Oncology Nursing Society (ONS) 2006 Congress</td>
<td>New Orleans, United States</td>
<td>Oncology Nursing Society (ONS)</td>
<td><a href="mailto:info@ons.org">info@ons.org</a></td>
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<td>10th International Congress on Oral Cancer (ICOOC)</td>
<td>Grado, Italy</td>
<td>Oral Dept. – Ospedale Civile de Udine</td>
<td><a href="mailto:info@icoc2006.nordestcongressi.it">info@icoc2006.nordestcongressi.it</a></td>
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<td>14-17</td>
<td>11TH International Congress on Oral Cancer (ICOOC)</td>
<td>Moscow, Russia</td>
<td>N.N. BLOKHIN RUSSIAN CANCER RESEARCH CENTER (INBRORC)</td>
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<td>16-17</td>
<td>Diagnostic &amp; Interventional Radiology in Clinical Oncology</td>
<td>Moscow, Russia</td>
<td>N.N. BLOKHIN RUSSIAN CANCER RESEARCH CENTER (INBRORC)</td>
<td><a href="mailto:info@icoc2006.nordestcongressi.it">info@icoc2006.nordestcongressi.it</a></td>
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<td>18-20</td>
<td>Ethics in Oncology</td>
<td>Bled, Slovenia</td>
<td>European School of Oncology</td>
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<td>24-26</td>
<td>XIX Annual Meeting of European Musculo-Skeletal Oncology Society (EMSOS)</td>
<td>Moscow, Russia</td>
<td>European School of Oncology</td>
<td><a href="mailto:info@icoc2006.nordestcongressi.it">info@icoc2006.nordestcongressi.it</a></td>
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<td>1-2</td>
<td>Head and Neck Course</td>
<td>Hong Kong</td>
<td>Department of Surgery, University of Hong Kong Medical Centre, Queen Mary Hospital Sassoon Road, Pokfulam Tel: 85 22 818 0232 Fax: 85 22 818 1186 Email: <a href="mailto:stoso@hku.hk">stoso@hku.hk</a> Web: <a href="http://www.hku.hk/surgery">www.hku.hk/surgery</a></td>
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<tr>
<td>2-6</td>
<td>2006 Annual Meeting – American Society of Clinical Oncology</td>
<td>Atlanta United States</td>
<td>American Society of Clinical Oncology Annie Gallander 1900 Duke St Ste 200, 22234 Denver Tel: 1 703 299 0158 Fax: 1 703 299 0255 Email: <a href="mailto:meeting@asco.org">meeting@asco.org</a> Web: <a href="http://www.asco.org">www.asco.org</a></td>
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<tr>
<td>7-9</td>
<td>European Association for Cancer Education (EACE) - 9th Annual Scientific Meeting</td>
<td>Enschede Netherlands</td>
<td>Sascha Hogecholen Inge Geimink Handelzijl 75 Postbus 501, 7400AM Wageningen Tel: 31 570 663 685 Fax: 31 570 663 611 Email: <a href="mailto:ggm@generalisation.nl">ggm@generalisation.nl</a> Web: <a href="http://www.eaceonline.com">www.eaceonline.com</a></td>
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<tr>
<td>11-13</td>
<td>2006 Komen Foundation Mission Conference - Many Faces - One Voice (breast cancer)</td>
<td>Washington DC United States</td>
<td>Susan G. Komen Breast Cancer Foundation Dallas, Texas, US Tel: +1 972 701 2127 Fax: +1 972 853 4301 Email: <a href="mailto:dresen@komen.org">dresen@komen.org</a> Web: <a href="http://www.komen.org">www.komen.org</a></td>
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| 15-16 | Familial Cancer - Inside Track Conference | Madrid Spain | European School of Oncology Daniela Mangato - Francesca Marangoni Via Beatrice d'Este, 37, 20122 Milano Tel: 39 02 8546 451 Fax: 39 02 8546 4545 Email: conference@europeo.org Web: www.cancerworld.org /

**CALENDAR OF MEETINGS**}

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<th>Name of Meeting</th>
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<th>Secretariat</th>
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<tr>
<td>28-1 Jul</td>
<td>CARS 2006 - Computer Assisted Radiology and Surgery</td>
<td>Osaka Japan</td>
<td>Computer Assisted Radiology and Surgery CARS Conference Office Kueselberg, Germany Tel: +497 742 922 438 Fax: +497 742 922 438 Email: <a href="mailto:secretariat@cars.org">secretariat@cars.org</a> Web: <a href="http://www.carsociety.org">www.carsociety.org</a></td>
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<tr>
<td>28-1 Jul</td>
<td>8th World Congress on Gastrointestinal Cancer</td>
<td>Barcelona Spain</td>
<td>European Society for Medical Oncology (ESMO) c/o lmedex Alpharetta, Georgia, United States Tel: +1 770 751 7332 Fax: +1 770 751 7334 Email: <a href="mailto:lki@lmedex.com">lki@lmedex.com</a> Web: <a href="http://www.lmedex.com/calendars/gastrooncology">www.lmedex.com/calendars/gastrooncology</a></td>
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## CALENDAR OF MEETINGS

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<tr>
<th>Date</th>
<th>Name of Meeting</th>
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<tbody>
<tr>
<td>8-11</td>
<td>NCI Cancer Conference</td>
<td>Birmingham</td>
<td>NCI Conference Secretariat</td>
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<tr>
<td></td>
<td></td>
<td>United Kingdom</td>
<td>Ms Sharon Vanloo</td>
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<td>P.O. Box 45709 61 Lincoln’s Inn Fields</td>
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<td>8-12</td>
<td>European Society for Therapeutic Radiology and Oncology (ESTRO 25)</td>
<td>Leipzig</td>
<td>European Society for Therapeutic Radiology and Oncology (ESTRO)</td>
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<td>Germany</td>
<td>Brussels, Belgium</td>
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<td>International Conference on Immunogenomics and Immunomics</td>
<td>Budapest</td>
<td>Diamond Congress - International Conference of Immunogenomics and Immunomics</td>
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<td>Hungary</td>
<td>Zulfan Prouzasca</td>
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<td>7-9</td>
<td>International Dermoscopy Course and Conference</td>
<td>Warsaw</td>
<td>Dept. Dermatology CSK MSWAN</td>
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<td></td>
<td></td>
<td>Poland</td>
<td>Dr. Lea Rudnicka, MD, PhD</td>
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<td>Tel: +48 22 824 22 90</td>
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<td>13-16</td>
<td>Perspectives in Melanoma X</td>
<td>Amsterdam</td>
<td>Immedex</td>
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<td>Netherlands</td>
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<td>13-17</td>
<td>International Congress on Hormonal Steroids/Hormones and Cancer</td>
<td>Athens</td>
<td>Erasmus Conferences Tour &amp; Tracel S.A.</td>
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<td>Greece</td>
<td>Mrs. Poreikite Mitrogiannis</td>
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<td>21-23</td>
<td>2006 Gastrointestinal Oncology Conference</td>
<td>Arlington</td>
<td>International Society of Gastrointestinal Oncology (ISGO)</td>
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<td></td>
<td></td>
<td>United States</td>
<td>Mr. Robert Ross</td>
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<td>200 Broadhollow RD, 11747 Malville</td>
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<td>European School of Oncology Course (ESO): Skin Melanoma</td>
<td>Istanbul</td>
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<td>27-Oct 1</td>
<td>14th International Conference on Cancer Nursing</td>
<td>Toronto</td>
<td>International Society of Nurses in Cancer Care (ISNCC)</td>
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<td>Canada</td>
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<td>29-Oct 3</td>
<td>31st European Society for Medical Oncology (EMSO) Congress</td>
<td>Istanbul</td>
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<td>1st International Congress on Childhood Cancer (ICCC 2006)</td>
<td>Tehran</td>
<td>Cancer Institute Research Center MAHAK Childhood Cancer</td>
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<td>Cancer Hospital Oshon BLVD,</td>
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<td>c/o Alireza Mosavi-jarrahi</td>
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<tr>
<td>Date</td>
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<tr>
<td>November</td>
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<tr>
<td>2-4 TRM</td>
<td>7th Meeting of the International Society of Geriatric Oncology (SIOG)</td>
<td>The Hague, Netherlands</td>
<td>T. Romanyk, Gevers Deynootweg 62 25868 THE Hague, Tel: +31 70 3318444, Fax: +31 70 3318442, Email: <a href="mailto:trama.com@trm-oncology.com">trama.com@trm-oncology.com</a>, Web: <a href="http://www.cancerworld.org/siog">www.cancerworld.org/siog</a></td>
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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.

MEMBERS
The Cancer Council ACT
The Cancer Council New South Wales
The Cancer Council Northern Territory
The Cancer Council South Australia
The Cancer Council Tasmania
The Cancer Council Victoria
The Cancer Council Western Australia
Queensland Cancer Fund

AFFILIATED ORGANISATIONS
Australasian Association of Cancer Registries
Clinical Oncological Society of Australia Inc
Palliative Care Australia

CEO
Professor A Coates AM, MD, FRACP, AStat

COUNCIL
Office Bearers
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Mrs J Roberts AO SRN
Vice-President
Professor I Frazer BSc(Hons), MBChB, MD MRCP, FRCP, FRCPA

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Mr G Brien AM, MBA
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Hon S Lenehan BA, DipMan, MBA, FAICD
Dr A Penman
Assoc Professor S Smiles RN, RM, ICC, BHA, GradDipPSEM
Dr K White PhD

CLINICAL ONCOLOGICAL SOCIETY OF AUSTRALIA INC

The Clinical Oncological Society of Australia (COSA) is a multidisciplinary 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.

EXECUTIVE COMMITTEE
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Professor D Currow BMed, MPH, FRACP

President Elect
Assoc Professor D Goldstein MBBS, FRACP

Executive Officer
Ms M McJannett

Council Nominees
Ms K Cameron RN, OncCert, GrDipN, MNSc
Professor L Kristjanson RN, BN, MN, PhD
Professor B Stewart MSc, PhD, FRACI, Dip Law

MEMBERSHIP
Further information about COSA and membership applications are available from: www.cosa.org.au or cosa@cancer.org.au

Membership fees for 2006
Ordinary Members: $160
Associate Members: $100
(includes GST)

INTEREST GROUPS
ANZ Children’s Haematology and Oncology
Breast Oncology
Cancer Nurses Society of Australia
Cancer Research
Clinical Research Professionals
Epidemiological
Gastrointestinal Oncology
Gynaecological Oncology
Lung Oncology
Medical Oncology
Melanoma and Skin
Neuro-oncology
Palliative Care
Pharmacy
Psycho-Oncology
Radiation Oncology
Regional and Rural Oncology
Social Workers
Surgical Oncology