# Contents

## Forum: Psycho-oncology

<table>
<thead>
<tr>
<th>Topic</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Overview</td>
<td>3</td>
</tr>
<tr>
<td>Jane Turner</td>
<td></td>
</tr>
<tr>
<td>Psycosocial aspects of sexuality and fertility after a diagnosis of breast cancer</td>
<td>6</td>
</tr>
<tr>
<td>Belinda Thewes and Kate White</td>
<td></td>
</tr>
<tr>
<td>The effect of adjuvant chemotherapy on cognitive functioning in early breast cancer: implications for outcomes research and oncology practice</td>
<td>10</td>
</tr>
<tr>
<td>Geoffrey F Beadle et al.</td>
<td></td>
</tr>
<tr>
<td>Exercise in cancer recovery: an overview of the evidence</td>
<td>13</td>
</tr>
<tr>
<td>Sandra C Hayes and Beth Newman</td>
<td></td>
</tr>
<tr>
<td>Psychosocial issues for people with advanced cancer: overcoming the research challenges</td>
<td>18</td>
</tr>
<tr>
<td>Penelope Schofield et al.</td>
<td></td>
</tr>
<tr>
<td>Challenges experienced by informal caregivers in cancer</td>
<td>21</td>
</tr>
<tr>
<td>Afaf Girgis et al.</td>
<td></td>
</tr>
<tr>
<td>Leading the way – best practice in psychosocial care for cancer patients</td>
<td>25</td>
</tr>
<tr>
<td>Karen Luxford and Jane Fletcher</td>
<td></td>
</tr>
<tr>
<td>Translating psychosocial care: guidelines into action</td>
<td>28</td>
</tr>
<tr>
<td>Suzanne K Steginga et al.</td>
<td></td>
</tr>
<tr>
<td>The Psycho-oncology Co-operative Research Group</td>
<td>32</td>
</tr>
<tr>
<td>Phyllis Butow and Rebecca Hagerty</td>
<td></td>
</tr>
</tbody>
</table>

## Articles

<table>
<thead>
<tr>
<th>Topic</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Diversity and availability of support groups</td>
<td>35</td>
</tr>
<tr>
<td>Laura Kirsten et al.</td>
<td></td>
</tr>
<tr>
<td>Promoting shared decision making and informed choice for the early detection of prostate cancer: development and evaluation of a GP education program</td>
<td>38</td>
</tr>
<tr>
<td>Robyn Metcalfe et al.</td>
<td></td>
</tr>
</tbody>
</table>

## Reports

<table>
<thead>
<tr>
<th>Topic</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Support for research</td>
<td>43</td>
</tr>
<tr>
<td>Australian behavioural research in cancer</td>
<td>57</td>
</tr>
<tr>
<td>COSA Annual Scientific Meeting 2005</td>
<td>65</td>
</tr>
<tr>
<td>Crossing the boundaries: a new era in cancer consumer participation</td>
<td>65</td>
</tr>
</tbody>
</table>

## News and announcements

<table>
<thead>
<tr>
<th>Topic</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>67</td>
</tr>
</tbody>
</table>

## Book reviews

<table>
<thead>
<tr>
<th>Topic</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>70</td>
</tr>
</tbody>
</table>

## Calendar of meetings

<table>
<thead>
<tr>
<th>Topic</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>81</td>
</tr>
</tbody>
</table>
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 Thewes 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.

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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 anecdotally 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 formally assessed. 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 contends 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. A central issue 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 experiencing it. A matter of acquiring self-monitoring and correction, planning and organisation. Given the nature of these deficits, it may be, for example, that a lawyer may not appreciate that chemotherapy may be interfering with experience cognitive deficits. This has clear implications for informed decision-making. Current knowledge does not yet provide insights into potential risk factors for the development of cognitive deficits, nor indeed the effectiveness of any remediation or longer-term outcomes. 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.

The need is for information to the previously unknown needs of cancer survivors, with recommendations that there be institutional responses to the difficulties experienced by this population. One of the pressing residual concerns of cancer survivors is fatigue, but it appears that the identification of fatigue and the response is often inadequate. The paper by Hayes and Newman illustrates the benefits of exercise in fatigue and improvements in other domains such as body image and mood. Research in this area is at a striking reminder of the importance of making treatment recommendations based on evidence rather than personal opinion – the intuitive advice received by many patients and caregivers is to "take it easy". It is possible that some of the methodological difficulties relate not only to the illness and status of patients, but a perception of researchers that is 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, particularly the emotional support, have been 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 research initiatives described by Girgis et al highlight the high quality of Australian research with women with advanced breast cancer that has been extraordinarily. 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 requested by busy clinicians. Lusso 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 cancer care is an exciting and important development for health professionals in this patient population.

Translation of evidence into practice

Steigenga et al provide a perspective on translation of the evidence about psychosocial interventions into clinical practice at a community level. The recently-established televised Cancer Counselling Service is an innovative response to the geographic barriers faced by many patients in rural and remote areas, and builds on the acceptability described in this paper. The service has been developed within a tiered framework for provision of psychosocial care. Explicit in this model is the notion that a large proportion of patients will benefit from provision of information and communication from health professionals without the need for further assistance, a smaller number requiring more specialist services. Indeed, specialised psychosocial support for all patients is not viable, even in large metropolitan centres, in rural and remote areas access to such services is often extremely limited. The tiered model of care has intrinsic appeal, as it encourages the tailoring of scarce resources to the particular needs of the individual. This is apt, given accumulating evidence that a sizeable proportion of patients do not require highly specialised interventions, highly specialised interventions are such that concise summaries of the evidence and recommendations for their implementation. The establishment of the Psycho-oncology Co-operative Research Group will be of interest to researchers and clinicians alike. The group has the potential to “value add” to large-scale trials in oncology and provides opportunities for larger-scale collaborative research than has previously been conducted in psycho-oncology in Australia, in addition to promoting high-quality research by new researchers. The group will be of interest to new members, and readers of Cancer Forum are invited to join the group using the contact details provided.

In summary, despite the relatively small population of clinicians and researchers in psycho-oncology in Australia, work of high quality and clinical relevance has emerged over the past few years. The papers in this edition of Cancer Forum provide an interesting overview of emerging areas, all clearly demonstrating 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 fertility after 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. There is increasing awareness of the emotional and the psychosocial aspects of parenthood after treatment. Key factors in the decision-making process about future fertility are the presence of a partner and the quality of the relationship with partners. Not only are fertility issues growing in prominence among premenopausal women treated for breast cancer, but the impact of cancer treatment on fertility issues is also being highlighted. For women of all ages, both the diagnosis and resulting therapies may have reproductive implications that are potentially reversible, however women will be unable to become pregnant and wish to breastfeed following a breast cancer diagnosis. For women of all ages, both the diagnosis and resulting therapies may have reproductive implications that are potentially reversible, however women will be unable to become pregnant and wish to breastfeed following a breast cancer diagnosis. For these women chemotherapy and endocrine therapies may have reproductive implications that are potentially reversible, however women will be unable to become pregnant and wish to breastfeed 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 focused 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 colleagues22 surveyed 228 young women (aged 40 years or younger) at diagnosis with a diagnosis of early stage breast cancer and the impact of pre-diagnosis and the time from diagnosis to treatment on fertility-related information needs. 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.

As part of a longitudinal qualitative study of experiences of young women with a diagnosis of breast cancer (diagnosed at 40 years or younger) Connell et al23 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 time among women in this sample. Contraception and potential contraception issues were raised together with recurrence fears related to pregnancy and breastfeeding after breast cancer. Perceptions of fertility changed over time among women in this sample. Contraception and potential contraception issues were raised together with recurrence fears related to pregnancy and breastfeeding after breast cancer. Perceptions of fertility changed over time among women in this sample. Contraception and potential contraception issues were raised together with recurrence fears related to pregnancy and breastfeeding after breast cancer.

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.

Approximately 27% of all new breast cancer diagnoses occur in women who are pre-menopausal at diagnosis, 6-7% of diagnoses occurring in women aged 40 years or less.11 For these women chemotherapy and endocrine therapies may have reproductive implications that are potentially reversible, however women will be unable to become pregnant and wish to breastfeed following a breast cancer diagnosis. For these women chemotherapy and endocrine therapies may have reproductive implications that are potentially reversible, however women will be unable to become pregnant and wish to breastfeed following a breast cancer diagnosis.

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.19 However, studies of general nurses’ attitudes towards fertility-related information for cancer patients suggest that while nurses acknowledge that they have a role in supporting patients with fertility concerns, they avoid discussing these topics because of a perceived lack of knowledge, experience and resources.24 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 considering sperm and ovarian tissue banking.25-27 Some Australian clinics have specialist information from gynaecology and fertility specialists, although only about a third of patients access these services.28 Many women have incorporated these specialists into the multi-disciplinary team when treating pre-menopausal breast cancer patients. For women treated for 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.
women treated for breast cancer is cryopreservation of oocytes or ovarian tissue using standard in vitro fertilisation (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 a poor oocyte or receptor-positive tumour. 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 preserving fertility. The decreased risk of estrogen related chemotherapies in premenopausal women with hormone receptor negative breast cancer as a method of fertility preservation is currently being investigated in an international trial, which has also added an increased focus on providing breast cancer patients access to clinically proven strategies for managing menopausal symptoms following cancer treatment. Despite increasing availability of fertility preservation options and strategies for managing menopausal symptoms, there remains a dearth of comprehensive and widely available information tools to inform cancer patients about these issues. Further development of high-quality, fertility and menopause-related information for young women with breast cancer has been identified as a priority area for research by consumer advocacy groups and health professionals alike.10

Sexuality and sexual function following breast cancer

The impact of breast cancer on sexuality and sexual function can vary greatly between women, with both the diagnosis and treatment having a significant impact on this aspect of well-being.11 This impact can include altered sexual function,12 poor self-image,13 loss of libido14 and relationship problems.15 Much of the research in this area has historically focused on limiting the impact of surgery (breast conservation versus mastectomy; sentinel node biopsy versus axillary clearance), maintaining breast form (prosthesis and reconstruction) and more recently managing the symptoms of premature menopause.16 While this work has led to important recognition of approaches to reduce the physical and psychological consequences of breast cancer treatment, it tends to focus on a single aspect in isolation from total women’s experience of a woman’s body experience. It does not acknowledge the complexity in meaning of ‘sexuality’ for the woman with breast cancer, nor the different levels of clinical intervention required in response to understanding and accommodating the new meaning of the existence of sexuality, where wholeness of body, not solely the breast, is needed to be truly functional17 and the interplay between psychological concerns, physical symptoms, and social changes in body image is an area that has yet to be addressed. Similarly, the impact of consequences such as lymphoedema on sexuality and sexual function has received very limited attention.

Information on sexuality and sexual outcomes associated with cancer is usually summarized through a single tool of assessment of the timing of diagnosis and decision making. A meta-analysis of research on breast cancer versus mastectomy concluded that quality of life, indicators of body image, sexual behaviour and body image, physical symptoms and mental health of women treated for breast cancer with a diagnosis of breast cancer. The intervention under investigation includes individual counselling sessions, post-treatment follow-up and specially trained peer counsellors who are guided by a purposely-designed workbook.18

The Fertility and Breast Cancer Project19 aims to explore the impact of lifestyle-related and information tools to inform cancer patients about these issues. Further research is needed to explore the psychosocial issues of parenthood after cancer among patients with more heterogeneous diagnoses. A greater understanding of the motivations for attempting or not attempting pregnancy following breast cancer. More research is required to explore health professionals’ attitudes toward providing cancer patients with fertility-related information, and to identify, and overcome potential barriers facing the widespread dissemination of fertility-related information to those who require it.

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 improved decision-making, 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 and access to information, support and decision-making to help women balance the survival gains of advanced therapies with their childbearing aspirations.20

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 (CancerForum). The outcome is ‘Impact on Young Women’s Attitudes and Decision Making’ (Investigator: Dr B Mercer) 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 & Medical Research Council, North America Menopause Society) in accordance with NHMRC guidelines. The tool will also include the efficacy and safety of available treatments for menopausal symptoms following breast cancer and implications for fertility and sexual functioning. (Personal Communication – Prof M Hickie) In the US a novel randomised control trial is currently underway which aims to explore the efficacy of a peer community-based breast cancer support group with mentors for American women with a diagnosis of breast cancer. The intervention under investigation includes individual counselling sessions, post-treatment follow-up and specially trained peer counsellors who are guided by a purposely-designed workbook.18
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 individual patient assessment, with its focus on the development of tailored behavioural interventions for significantly

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 measurement in the research literature. The 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 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 multi-faceted array of interlocking domains, each representing a specific cognitive attribute. An additional construct, executive functioning, describes higher order control and coordination of 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 validated 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 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 neuropsychological tests designed to assess a variety of cognitive domains. Self-report measures of quality of life, depression, anxiety and fatigue were also evaluated in various studies to examine the relationships between
These constructs and cognitive functioning. Findings from some functional 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. Three studies have utilised a longitudinal design, two with pre- and post-treatment assessments and one with the first assessment 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. A large battery of neuropsychological tests 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 change 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, 55% of patients exhibited cognitive impairment before commencement of chemotherapy. The second study with baseline measures reported in 50 women undergoing adjuvant chemotherapy for early breast cancer and administered a battery of neuropsychological tests evaluated verbal and visual memory, working memory, processing speed and executive functioning. In contrast with the above, heightening chemotherapy treatment patients had a much more moderate 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. 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 pre-treatment performances to normative data, control groups, or baseline assessments. 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. Recommendations from the meta-analysis, workshops and reviews placed 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 direction**

Although the results of published studies are proof of principle that adjuvant chemotherapy is 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 tests 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, three or four tests is low to test specific domains. To date, no domain specific test has been devised that addresses all aspects of that domain. At the same time, there is interest in including specific tests that frequently cross into other domains. Considerable expertise is therefore required in the interpretation of tests that apply artificial cognitive scenarios distant from the real world. 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 domain, 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 (e.g. 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’ delineates 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. However, while cancer is estimated to be responsible for nearly 20 million deaths every year, the five-year survival rates for many cancers have improved significantly. This has led to a growing interest in the role of exercise in the management of cancer.

**Exercise and cancer**

Exercise interventions have been shown to improve the quality of life and overall survival in cancer patients. The site of cancer treatment, the stage of the disease, and the patient's age are all factors that influence the effectiveness of exercise interventions. However, there is a general consensus that exercise should be recommended to all cancer patients, regardless of their treatment regimen.

**Exercise prescription**

The dose and type of exercise recommended for cancer patients vary depending on the type of cancer, the stage of the disease, and the patient's overall health. In general, low to moderate-intensity exercise is recommended, with sessions lasting 15-60 minutes and occurring 1-6 days per week. Exercise should be individualized for each patient, with consideration given to their specific needs and limitations.

**Enhancing benefit and minimizing risk**

The benefits of exercise for cancer patients are well-established. However, there are some potential risks associated with exercise, including the possibility of fatigue or lymphoedema. For this reason, exercise should be prescribed by appropriately qualified health professionals who are working in collaboration with treating specialists. The role of the physician must be acknowledged as a likely important factor influencing participants' motivation and adherence. It is important to note that exercise is safe when prescribed by appropriately qualified health professionals working in collaboration with treating specialists.

**Conclusion**

In conclusion, exercise is an important, safe, feasible and appropriate QoL intervention for cancer patients and survivors. While another purpose of exercise interventions following treatment for cancer includes the prevention of secondary cancer and other chronic disease, to date this objective has largely been overlooked. Recent findings published by the Nurses' Health Study, demonstrating that walking for 3-5 hours per week at an average pace, reduces the risk of breast cancer, emphasises the importance of exercise in the prevention and management of cancer.
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 for breast 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 in cancer, 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 (eg. chest press, back squat) with more options currently available for breast cancer patients. With more rigorous, randomized controlled 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 our understanding of how we can best assist cancer survivors to become active needs substantial improvement. Therefore, future work must address the feasibility and acceptability of various exercise programs from the perspective of the survivors 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

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. These challenges are exacerbated as the disease progresses. Moreover, there can be vast variations in the prognosis of individuals with the same disease. Of concern is that although 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 metastatised 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 cancer. This paper discusses the psychosocial issues associated with advanced cancer, the challenges inherent in conducting research with advanced cancer, 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. Indeed, dealing with a lack of energy and tiredness is rated by patients with advanced cancer as their top unmet need. Severe fatigue has been associated with higher levels of depression and increased pain. Effective management options are limited, however there is evidence that exercise programs can reduce cancer-related fatigue in patients with early cancer.

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.

Dyspnea is also highly prevalent among those with advanced cancer, especially lung cancer. It is a highly distressing symptom, which restricts all activity and causes anxiety, panic, depression and fear of impending death. Nausea, vomiting and constipation are often poorly controlled and can also adversely affect a patient’s QoL. 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. These studies highlight the importance of controlling symptoms, especially fatigue and pain, how medical and palliative interventions for people with advanced cancer is scarce.

Impact on psychosocial functioning

People with advanced cancer often experience high levels of psychological distress, with as many as a third meeting diagnostic criteria for psychiatric disorders. Distress has been linked to prognostic awareness. Depression among people receiving palliative care who did not acknowledge their prognoses has been found at rates almost as high as those of those who demonstrated partial or complete conscious acknowledgement of their condition. Patients’ social interactions also suffer, as symptoms restrict functioning in social and work-related roles. In comparison to others, people with advanced diseases report higher levels of unmet needs in most domains, but especially in the psychological, physical and daily living domains.

In a recent systematic review of 329 trials of psychological interventions for cancer patients, it was concluded that group-based therapies require further research before recommendations can be made about their use to reduce anxiety and depression, improve general affect and coping and increase survival time. Informational and educational interventions also warrant further research for their role in reducing depression, improving QoL and increasing survival time. The involvement of significant others in psychosocial interventions for cancer patients reduces their anxiety and distress and enhances their QoL. The review also showed that 65% of the 329 trials reviewed examined psycho-educational intervention oriented to patients with advanced disease. Disturbingly, only one trial of the 329 was judged methodologically adequate; consequently only tentative recommendations could be made about the effectiveness of interventions on patient outcomes.

Impact on family functioning

Many people with advanced cancer experience guilt as a result of the burden they perceive being placed on their caregivers. Family physical and emotional distress increases as the cancer advances, peaking during the terminal phases of the illness. 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. Given the impact advanced illness has on family functioning, it has been recommended that the patient and their family should be recognised as the ‘unit of care’. Patients’ social interactions also suffer, as symptoms restrict functioning in social and work-related roles. In comparison to others, people with advanced diseases report higher levels of unmet needs in most domains, but especially in the psychological, physical and daily living domains.

A high proportion (61%) of Australian women with advanced breast cancer indicate that they would like to changes to the way their diagnosis of advanced disease was communicated. While there is research on preferences for prognostic information among patients with advanced cancer, there have been no empirical studies evaluating ways of communicating ‘bad news’ to patients with advanced disease.

Abstract

Being diagnosed with advanced cancer is devastating for the person and their family. It progressively affects the individual’s physical functioning, which in turn affects emotional well-being, social interactions, daily living and quality of life. Advancing illness also impinges upon family functioning and raises existential questions related to facing death. There is relatively little research investigating psychosocial interventions for people with advanced cancer. This paper describes the psychosocial issues associated with advanced cancer, the challenges inherent in conducting research.

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FORUM

PSYCHOSOCIAL ISSUES FOR PEOPLE WITH ADVANCED CANCER: OVERCOMING THE RESEARCH CHALLENGES

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FORUM

Impact of the ‘bad news’ about advanced cancer

While the news of an advanced cancer diagnosis has many similarities to earlier bad news episodes, it also has some unique characteristics. Understandably, most people rate similarities to earlier bad news episodes, it also has some unique characteristics. Understandably, most people rate...
that can limit the generalisation of the findings. Some of these challenges can be addressed by: broadening the inclusion criteria; conducting bias analyses; working closely with the treatment team to reduce gate-keeping; and by ensuring that the sample size 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 incapacitated by the study requirements, or die unexpectedly. The estimation of prognosis is known to be inaccurate. Christians and Lamont4 have shown that the estimation error for individual palliative patients by the treating physician are frequently wrong, on average by a factor of five, usually overestimating survival time. Reducing the length of follow-up can ameliorate the problem of attrition. However, when follow-up assessments are close together, outcome measures will need to be chosen carefully. For example, it is recommended that some QoL measures are not repeated within 30 days as more frequent administrations may affect the validity of scores.5

Participation in the intervention as specified by the protocol is another problem. Fluctuating health may mean that patients do not receive the intervention or receive it only part of the time. Conducting ‘intention to treat’ analysis as recommended by the CONSORT criteria for randomised trials6 means that if a sizeable proportion of intervention patients do not receive the entire intervention, this will dilute the impact of the intervention on the measured outcomes. Hence it is critical to consider carefully practical issues when conducting this type of research. Certain intervention modalities may be more likely to be used in practice if conducted in group sessions, as it may be difficult for participants all to attend at the same time. One study examining a group intervention for feared symptoms found that for elderly carers, the provision of a transport service assisted with uptake of the intervention.7

The evaluation of supportive care interventions for the family members of people with advanced disease poses additional challenges, including the design of studies that do not place too great a time burden on family members who may already have many competing demands. Achieving adequate study retention may be difficult, especially if the study follows-up plan involves frequent contact. Other challenges relate to rapid fluctuations in patients’ health and the reliability of data where carers are asked to make assessments on patients’ behalf.

The challenges associated with conducting supportive care research in this area may account for why there are considerable gaps in our knowledge about optimal supportive care interventions for people with advanced cancer. The care required with advanced cancer will only be improved by the conduct of high quality research to inform practice change. The research challenges with this population are greater than with other groups, but many difficulties are not unique to this group and so should not be overcome, by various mechanisms such as broadening inclusion criteria, careful consideration of intervention delivery, reducing length of follow-up, shorter questionnaires and data collection, higher levels of attention and lower recruitment rates may also need to be accepted as features in this research. However, eschewing this work on the basis that it is unfair or inappropriate to ask people with advanced disease to take part in research is unacceptable. It is paternalistic to assume that people with advanced disease do not wish to be involved in research. It is acknowledged that such patients will be invited but may have limited time left. As researchers, we need to rise to this challenge and not subscribe to the excuses that are proffered to avoid working with this worthy group.

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Challenges Experienced by Informal Caregivers in Cancer

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Abstract

Evidence from the literature highlights the significant negative impact of care giving on the physical, mental and financial aspects of caregivers’ lives. It also reinforces the importance of reducing the barriers to meeting the unmet needs of caregivers and that research priorities in intervention development need to focus on reducing the negative aspects of care giving. Increased assistance to caregivers needs to 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 as caregivers are increasingly replacing skilled health workers in the delivery of unfamiliar, end-of-life care.

Cancer is a major disorder which affects many people directly and indirectly. In Australia, one in three men and one in four women will be diagnosed with cancer before the age of 75.8 There has been a significant increase in long-term survival for most cancers and more than half of all newly diagnosed cancer patients will survive for more than five years.9 The course of many cancers is now chronic, requiring long-term treatment and a continuing need for care.

The diagnosis of cancer presents a major event not only to the person being diagnosed but also to their critical caregivers. The primary setting for the delivery of care to patients with cancer has shifted from the hospital to the home as a result of the complex nature of cancer care services for cancer treatment, longer survival and patients’ wishes to be cared for at home.10 Care giving is commonly equivalent to a full-time job with 20% of caregivers providing full-time or constant care.11 The increased trend for home-based care of advanced cancer in the Australian health system places a greater emphasis on the care given by the patients’ informal caregiver.

However, concerns have been raised about the future availability of informal caregivers in the light of social and demographic changes.12 The increased proportion of older people in the population, declining fertility rate, increased rates of female labour force participation, increased rates of relationship breakdown and health care reforms that are shifting care from the hospital to home are all pressures that will impact on the availability of an informal family caring workforce.13

The study by the National Centre for Social and Economic Modelling has added a new dimension to the debate by contrasting the demand for care to the likely supply of informal care in Australia. As the number of older

Based on the text provided, please answer the following question: What is the primary setting for the delivery of care to patients with cancer? The primary setting for the delivery of care to patients with cancer has shifted from the hospital to the home as a result of the complex nature of cancer care services for cancer treatment, longer survival and patients’ wishes to be cared for at home.10 Care giving is commonly equivalent to a full-time job with 20% of caregivers providing full-time or constant care.11 The increased trend for home-based care of advanced cancer in the Australian health system places a greater emphasis on the care given by the patients’ informal caregiver. However, concerns have been raised about the future availability of informal caregivers in the light of social and demographic changes.12 The increased proportion of older people in the population, declining fertility rate, increased rates of female labour force participation, increased rates of relationship breakdown and health care reforms that are shifting care from the hospital to home are all pressures that will impact on the availability of an informal family caring workforce.13

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As populations grow older, the number of potential caregivers due to primary caregiver or older caregiver aging is increasing. Older age groups contribute more to the disabled population than they do to caregiver populations, with the ratio of primary caregivers to older persons being 10 to 1. As such, the number of people who need care is expected to increase. For example, in the United States, about 1 in 4 people aged 65 and over are cared for by someone else in their own age group. About 38% of primary caregivers live with the person receiving the care and 43% of all caregivers are partners, 25% are children, and 21% are parents of the person receiving the care. The majority of caregivers report taking on the role of caring because of family responsibility and not because of choice. Caregivers have limited time for social life, personal relationships, and hobbies and for themselves. These limitations result in social isolation and loneliness, changes in family and other relationships and a sense of grief and loss.17,21

Research has identified a significant impact of care giving on areas including holidays, time away, travel and having limited time for social life, personal relationships, hobbies and for themselves.17,21 These limitations result in social isolation and loneliness, changes in family and other relationships and a sense of grief and loss.17,21 Caregivers report being burnt out.15,21 Opportunities for social contact and support are limited.17 While caregivers report experiencing surprise, shock, anger, resentment and a sense of inadequacy22 other common emotions are increased anxiety, depression, and distress.23,24 Not only are caregivers facing the fear of a potentially life threatening illness, the continuous caring can result in feeling exhausted and burnt out.25 Opportunities for social contact and support are also reduced, as caring disrupts usual activities and reduces the caregiver’s time.26,27 The emotional and social burden of care giving contributes to significant mental health morbidity, with elevated rates of anxiety, depression and distress26,27 and poor quality of life28 being reported in caregivers of patients with cancer.

Sub-groups of caregivers may be at increased risk of psychological morbidity due to personal physical, social, and psychological factors associated with the patient. Caregivers are more likely to have higher levels of psychological distress than non-caregivers and are at increased risk of depression, as are caregivers who care for patients with higher perceived levels of stressful behavioural and emotional, and with higher levels of pain.18-20 Caregivers are more likely to become discouraged, depressed, and disengaged.18,20 Caregiver wives are reported to have higher levels of depression and poorer health than caregiver husbands.20

Conversely, lower levels of depressive symptoms are reported by caregivers if they perceive that doctors listen to them and consider their opinions regarding the patient’s illness, needs and medical treatments.23 Physical health risks have also been found to be associated with caring and include high blood pressure, tiredness, stress, burnout, physical injury and poor overall physical health.15,21 In addition, care giving is often performed by people who are themselves elderly or ill.21

Impact of care giving

Caregiving activities undertaken for people who are terminally ill or who have a disability are varied and numerous and include personal care, assistance with mobility, transportation, communication and housework, emotional support, scheduling appointments, social services, assistance with social activities, shopping, meal preparation, managing finances and management and coordination of medical care (including the coordination of care with patients in pain, administration of medications and therapies and managing infusions).29 More than half of caregivers have reported more things to do than they could handle.21

Care giving

Although many caregivers derive deep satisfaction and benefits. An Australian study found that caring for a cancer survivor-pair.9 Almost 80% of primary caregivers live with the person receiving the care and 43% of all caregivers are partners, 25% are children and 21% are parents of the person receiving the care. The majority of caregivers report taking on the role of caring because of family responsibility and not because of choice or no one else to provide the care.

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Impa...
The incidence of late and crisis referral and improving the gap between knowledge and practice, thus reducing the guidelines and PC-NAT could reduce the identified to undertake research into palliative care referral. Part Ageing has funded a national team headed by CHeRP the Australian Government Department of Health and prognosis as the main triggers for referral to SPCSs, there is also a focus on physical symptoms and Care giving is associated with a significant negative impact on the physical, mental and financial aspects of caregivers’ lives. Increased assistance to caregivers needs to be encouraged and workforce in the delivery of unfamiliar complex cancer care at home. Needs based access to existing services, including PCPS, also needs to be encouraged and facilitated to help caregivers in their important role.

Conclusion
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 of caregivers and especially as caregivers are increasingly replacing skilled health workers in the delivery of unfamiliar complex cancer

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LEADING THE WAY – BEST PRACTICE IN PSYCHOSOCIAL CARE FOR CANCER PATIENTS
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Abstract
Australia has taken an international lead in recognition of the importance of psychosocial care for cancer patients and in the associated development of evidence-based best practice recommendations. The guidelines provide practical advice to health professionals about effective psychosocial interventions to alleviate the significant burden experienced by patients. Strategies have been undertaken nationally to promote adoption of best practice recommendations across the number of psychosocial guideline areas. Current and future initiatives should aim to further promote the integration of PCPS, also needs to be encouraged and facilitated to help caregivers in their important role in the National Breast Cancer Centre (NBCC) launched the Psychosocial Clinical Practice Guidelines: information, support and counselling for women with breast cancer in 2000. 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 cancer, which were launched by the then Federal Health Minister Kay Patterson in August 2003. Based
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 treatment-related procedures they are about to undergo and identify goals for appropriate service referral and issues requiring specialist consideration.

Clinical practice guidelines for the psychosocial care of adults with cancer are designed to be used in a similar way to the guidelines for breast cancer patients. They are reviewed regularly with an audit of the intended outcomes and impact of the guidelines. The guidelines are made available to the public online to assist with knowing how to respond to specific patient characteristics.

Typically, best practice recommendations focus on the diagnostic or treatment aspects of care. It is recognised that the psychosocial guidelines should of be 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 the guidelines are based on high level evidence of beneficial psychosocial interventions than there is for many traditional aspects of care management such as chemotherapy.

The guidelines provide information about how to improve psychosocial outcomes using techniques to increase patient recall and understanding, prepare patients for procedures they are about to undergo and identify patients at risk of psychosocial distress. They also include cognitive behavioural techniques to decrease anxiety, distress and reduce symptom burden (e.g. pain control) and discuss the management of depression through combined therapies including supportive psychotherapy and pharmacotherapy. In addition they cover appropriate service referral and issues requiring specialist consideration.

The guidelines have received international attention with the International Union Against Cancer (UICC) acknowledging 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 a multidisciplinary working group, and well received to date. Adding to an effective dissemination strategy, active implementation of the guidelines was seen as paramount to their success. Although there is some evidence about the implementation of best practice guidelines, the data from most of the data relates to guidelines that focus on the diagnostic or treatment factors of specific diseases. Implementation of the clinical practice guidelines for health care providers was developed with cancer patients’ needs in mind. Unlike other implementation strategies, the aim when implementing guidelines such as these is to enhance knowledge and awareness of health professionals who may not regard psychosocial care as their core business. In effect the aim of implementation is to improve knowledge about psychosocial issues; to improve knowledge about effective interventions; and to assist in the provision of strategies to deal with the emotional impact of disease.

Given the importance of the material contained in the guidelines and the challenges of implementation, DoHA provided support to the NCC in early 2003 to develop, in collaboration with the NBCC, an action plan. This multifaceted implementation strategy. A multidisciplinary steering committee was established and a four-module implementation strategy included interactive educational workshops (module 1), health professional summary cards (module 2), consumer strategy (module 3) and a rural and remote strategy (module 4). Funding for modules 1 and 2 of the four-module strategy was approved in July 2004.

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, 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 that affect patients and their families. The secondary audience for the workshops comprised other health professionals including general practitioners, nurses, occupational therapists, psychiatrists, occupational therapists, physiotherapists and pharmacists. The workshops were open to all health professionals dealing with cancer patients. The same format was used in each state and territory with each workshop including a local consumer speaking about their cancer journey. This was followed by presentations on the emotional impact of cancer, gaps in service delivery and the development of the guidelines. Two case vignettes were presented to each hour of each workshop contained a multidisciplinary panel discussion around a hypothetical case. Panel members represented the broad range of disciplines involved in psychosocial care in an oncology setting. Pre and post evaluation of the educational workshops was based on improvements in attendees’ attitudes, knowledge and confidence in dealing with psychosocial issues. The evaluation, using self-report questionnaires, was performed at three time points: pre workshop, immediately post workshop and three months post workshop. Familiarity with the guidelines improved post workshop and was maintained at three-months. Improvements were seen in health professionals’ knowledge of psychosocial risk factors and treatments, referral networks, the identification of minor and major disorders and the psychosocial care of patients. Improvements in confidence in relation to referral, the assessment of suicide risk and the identification and management of depression and anxiety among cancer patients were observed.

In addition to the interactive educational workshops, health professionals were also advised to provide an educational summary of their guidelines. Given the size of the guidelines it was seen as unrealistic to expect all clinicians involved in cancer care to read the guidelines in their entirety. In addition, it was seen as important to recognise that summary cards are a useful tool. Therefore the card contains summaries of key sections within the guidelines and includes information on the psychosocial issues facing people with cancer, common problems, types of interventions available, referral for specialist care and prompts to explore and respond to specific concerns. The summary represents a concise summary of the guidelines and has been developed using a multifaceted approach, including extensive focus group testing and consultation with target audiences. The card is suitable for use by a wide range of health professionals including general practitioners, medical and radiation oncologists, surgeons, nurses, occupational therapists, physiotherapists, psychiatrists, psychologists, social workers and any other health professionals dealing with oncology patients. It has been disseminated to these and other relevant groups.

Evaluation of the health professional summary card was undertaken by self-report questionnaire distributed with the August 2005 edition of Marryman’s, the COSA newsletter. Increased familiarity with psychosocial issues, knowledge of psychosocial risk factors, treatment, referral for specialists, and confidence in relation to cancer were reported as a result of reading the summary card. Confidence in the ability to identify distress, communicate with patients in a psychosocial issue was also increased. The majority of respondents rated usefulness, relevance, layout, readability and content of the summary card as “very useful” or “useful.”

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 in the Northern Territory. In this demonstration approach to patient care participating hospitals were encouraged to include supportive care staff (such as breast care nurses or psychologists) as core team members at care planning meetings. At the completion of the project, staff reported that patients were more frequently referred for psychosocial care and patients reported that coordination of care and provision of support and information had increased. The follow-up survey demonstrated that many changes initiated in this project were sustained.

The NBCC has promoted the evidence of benefit gained from this Australian project and studies from overseas in a recent national forum series for professionals and service administrators. A number of key highlights in the importance of psychosocial care in multidisciplinary teams. The forum were well attended with participants suggesting local and state level strategies to improve care provision.

Other guidelines
Following on from recommendations about early breast cancer, the NBCC developed Clinical practice guidelines for the management of advanced breast cancer. In recognition of the importance of psychosocial care, extensive information about the psychosocial impact of advanced breast cancer appears first in the guidelines before the expected recommendations about management of clinical issues. The guidelines are supported by a literature review of the emotional impact of advanced breast cancer.

To promote the adoption of the guidelines a national seminar series was held. An interactive panel discussion was held at each seminar, including open discussion about the psychosocial impact of advanced breast cancer for women and their families. This discussion enabled health care professionals to raise issues experienced with local service delivery and to consider ways in which these services might be improved.

In addition to guidelines and education for clinicians, the NBCC includes information on effective supportive care approaches in guides developed for women diagnosed with breast cancer.

The need to integrate conventional patient management with psychosocial care is clearly illustrated in the NBCC Clinical practice guidelines for the management and support of younger women with breast cancer. In 2004, the NHMRC approved guidelines acknowledge that the impact of a diagnosis of breast cancer and the treatment is different for a younger woman or younger may be quite different from those of an older woman with this disease. Younger women are more likely to experience psychological challenges, body image, sexuality and fertility are especially significant for younger women.

Focusing on a specific patient characteristic (in this case, younger age), the guidelines follow the patient journey from diagnosis and information, 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 their fertility.

The guidelines also recognise that clinicians managing younger women 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?

CancerForum: Volume 30 Number 1 March 2006 CancerForum: Volume 30 Number 1 March 2006
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, 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 discussion 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 sets 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 review progress in supportive care provision.

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. These 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**


**Translating psychosocial care: guidelines into action**

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**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 oncology 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 into practice.

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.1,2 For people with a personal experience of cancer, it 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.3,4 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.5-8 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 healthcare 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.9-10 Second, patients’ desire for support has been found to not correlate to their levels of psychological distress.11 Thus, relying on patients to self-refer is likely to leave many high distress patients unidentified and unassisted. Third, psychosocial oncology is often under-funded within the acute health care system and this further limits patients’ access.12 Fourth, the move to outpatient care where possible means that patients’ interactions with the acute health care system may be more intermittent and less time intensive in their provision of support services to patients.13 Fifth, the lack of awareness of the existence of these guidelines among healthcare professionals leaves many distressed patients unidentified and untreated.14

**Figure 1: Tiered Model of Psychosocial Care in Oncology**

- Severe distress
- Acute care: Intensive or comprehensive therapy for acute and complex problems eg. mental health team, psychiatrist.
- Specialist care: Specialised therapy for depression, anxiety, relationship problems eg. psychologist, psychiatrist, tele-based Cancer Counselling Service.
- Extended care: Counselling, time limited therapy, skills training eg. psychologist, social work, tele-based Cancer Counselling Service.
- Mild to moderate distress
- Supportive care: Emotional, practical, spiritual care, psychoeducation, values based decision support, peer support eg. social worker, peers, chaplain, Cancer Helpline.
- Universal care: Information, brief emotional and practical support eg. health care team, Cancer Helpline.
Triage to the appropriate levels of intervention can be undertaken using evidence-based methods from an in-depth clinical interview to psychometric screening.22-24 As need or distress increases, the level of care also increases with higher levels of need based on risk factors such as a pre-existing psychiatric disorder, poor social support or significant relationship/sexual problems. Finally, or distress increases, the level of care also increases with higher levels of need based on risk factors such as a pre-existing psychiatric disorder, poor social support or significant relationship/sexual problems. Finally, extreme distress or multiple problems require acute care. These levels of care provide a general guide, but it is important that health professionals maintain flexibility in tailoring care to the needs of individual patients and families. This tiered model, includes services such as: psycho-educational interventions, in either individual or group format; demonstration of relevant psychosocial care; and referral to a Cancer Helpline or other trained health professional; and emotional support provided by a trained peer volunteer or a peer-led support group.

Extended care refers to more focused counselling and active skills training, for example, teaching specific skills such as problem solving or anxiety management. Another component might include structured group therapy facilitated by a trained health professional. Specialist care refers to specialised interventions provided by a health professional with extensive psychosocial training and includes individual or couple therapy for people with mood or anxiety disorders or as an initial intervention. 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 are most effective in reducing distress. Second, it is assumed that support needs change and differ over time so there is an imperative to check on needs and preferences related to psychosocial care as treatment progresses. Finally, it is proposed that health professionals aim to be patient centred, flexible in approach, well connected to other healthcare referral networks and work within the scope of their clinical practice.

In Queensland, this model has been applied to the integration of Queensland Cancer Fund (QCF) services with other community based and acute services. Queensland has a population of four million in a state close to seven times the geographic size of the United Kingdom and a population of approximately 5 million. The Queensland population is concentrated on the eastern seaboard, with 56% of people living outside of Brisbane and close to 30% living outside of the (relatively) more populous south-east corner. Thus, geographic barriers are a key issue with a need for tele-based psychosocial services. Consistent with this, tele-based services have proven to be highly acceptable to people with cancer in Queensland with the QCF Cancer Helpline receiving over 25,000 patient related calls in 2005, demonstrating a 36% increase in such calls over the past two years. The Cancer Helpline is staffed by health professionals with specialised training in understanding and responding to the psychosocial needs of cancer patients and in decision support and provides universal access and supportive care to patients and families at no cost. A database with over 1600 community and acute settings services listed underpin the Cancer Helpline service to support referral to accessible services appropriate to callers’ needs.

As well, triage to a tele-based Cancer Counselling Service staffed by clinical psychologists and masters’ trained nurse counsellors is applied to provide extended and specialist care for Helpline clients who have higher levels of distress or expressed need. Triage is undertaken using client interview and a single item verbal screening question assessing global distress.23 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 outlines 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 minimal to 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

Problematically, although the Cancer Helpline provides a ‘no cost’ service to the consumer, professional referral to the service remains low with only 5% of callers advising that they received the Helpline contact details from their treating health professional team and most indicating the need for psychosocial support services.24 In the telephone directory. These figures are consistent with research showing that many health professionals have a low appreciation of patients’ support needs and are infrequent referers to psychosocial support services.25 Clinical practice guidelines aim to address such issues, but unless they are widely disseminated and integrated into practice they will have little influence on health professionals' behaviour.26 Thus, unless dissemination is paired with practically focused training, efforts to encourage adoption of such practices may be unsuccessful. To address this problem we developed a workshop training program specifically targeted the following needs: 1) knowledge about the psychosocial support service – matching resources and services to the needs of patients and families; 2) needs of patients and families; 3) knowledge of local psychosocial care referral networks; and 4) attitudes towards 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 scenarios including patients with different need and distress levels. These scenarios are then related to key sections of the NHMRC guidelines, to illustrate how this document can be practically relevant for individual practitioners. 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.

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

<table>
<thead>
<tr>
<th>Demographic variable</th>
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<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>Geographic residence</td>
<td>Rural 46 Regional 54</td>
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<tr>
<td>Client type</td>
<td>Family/carer 41</td>
</tr>
<tr>
<td>Cancer type</td>
<td>Breast 32 Colorectal 16 Lung 10 Prostate 9 Brain 7 Other 26</td>
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</table>

Note: N=444.

Presenting problem %

<table>
<thead>
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<tbody>
<tr>
<td>Adjustment to care</td>
<td>20</td>
</tr>
<tr>
<td>Bereavement</td>
<td>16</td>
</tr>
<tr>
<td>Anxiety</td>
<td>15</td>
</tr>
<tr>
<td>Depression</td>
<td>12</td>
</tr>
<tr>
<td>Family relationships</td>
<td>11</td>
</tr>
<tr>
<td>Other eg. survivorship, physical symptoms, relationship issues</td>
<td>26</td>
</tr>
</tbody>
</table>

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) attitudes towards integration of psychosocial care into usual practice.

References

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 psycho-oncology research.

Psychological distress and disorder in cancer patients

Optimal care of the patient with cancer incorporates effective physical and psychological care, through diagnosis and treatment, long-term survivorship, recurrence and death. A diagnosis of cancer is a threat to life itself, generating turmoil in the lives of patients diagnosed with the disease as they, and their families, struggle to define and resolve the series of meanings and decisions that confront them. A cancer diagnosis and treatment may also impact on patients’ psychological and physical health, sexuality, body image, finances, relationships, and their ability to continue in their roles at home and work.1

People with cancer suffer significant emotional morbidity. An Australian study conducted by Kissane and his colleagues found that 45% of cancer patients had a psychiatric disorder and 42% were diagnosed with depression or anxiety, or both (compared to a prevalence of 9% in the general population). While the prevalence of clinical disorder varies from study to study, almost all cancer patients report some distress associated with their illness and its treatment. Many patients also lack information about their illness and possible support services. Recent studies measuring stress levels of patients with colon and prostate cancer and their partners indicate that partners experience significantly more distress than patients and receive less support, while patients themselves often report family needs and issues as their biggest concern. It is known that psychosocial concerns and morbidity often go undetected and are under-treated in the oncological setting. Strategies to ensure effective screening, referral and treatment of psychosocial concerns are urgently needed. Our current response to these levels of distress and morbidity are inadequate. Up to 40% of patients report a range of unmet needs.2

In summary, there is a continuing need to explore the psychosocial needs, understanding of cancer and barriers to care for patients and their families. Several recent reports have highlighted the importance of, and current deficiencies in, psychosocial care of cancer patients. In the 1997 National Cancer Control Initiative report, Cancer Control Towards 2002, psychosocial care was identified as one of the 13 actions recommended for implementation. Recent policy documents, for example the NSW Cancer Care Model and the National Cancer Control Plan Priorities for Action in Cancer Control 2001–2003, have stated that improving the psychosocial care of cancer patients in Australia is a national priority.3,4

Cancer and its treatment has a considerable impact on a person’s quality of life (QoL) which encompasses physical functioning, psychological functioning, social interaction and physical symptoms of the disease and its treatment.5-10 The importance of assessing QoL in cancer patients is recognised particularly for those receiving treatment, whether standard or experimental, and there is a need to establish collaboration between psychosocial researchers and clinical trials groups to effectively explore patients’ needs in this area.

Psycho-oncology research

The research climate has shifted in Australia over the past 15 years towards providing greater support for psychosocial research. This has resulted, in part from the improvements in cancer treatment, leading to an increasing focus on improving QoL as well as extending life. The influence of consumer groups in Australia, who place a priority on psychosocial concerns, has influenced funding bodies. The establishment of the Psycho-oncology Group within the Clinical Oncological Society of Australia (COSA) gave this discipline credibility within the multi-disciplinary clinical setting. In NSW, a clinical support/interest group of psychologists working in cancer has been meeting for 10 years. Similarly in Victoria, there is a thriving group, the Victorian Psycho-oncology Group, which is dedicated to improving psychosocial care for cancer patients through the development and exchange of research ideas and the promotion of collaborative research. With the expansion in psycho-oncology services occurring as a result of the policy documents described above, the total workforce in this field is expanding rapidly and will continue to do so in the next few years.

There are several psycho-oncology research groups in Australia with international reputations in this arena, which have been enormously productive despite limited infrastructure support. However, the infrastructure to enable collaboration and implementation of large-scale research has been, until recently, insufficient. It is only through strong foundations and a commitment to research in this area that collaborations will flourish. The existing expertise is disparate and collaboration has been opportunistic rather than coordinated and comprehensive.

Formation of the Psycho-oncology Co-operative Research Group (PoCoG)

PoCoG 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, PoCoG was successful in achieving infrastructure funding for two years from the Cancer Institute NSW, as a state organisation with the expectation that within that time, it would become self-funding and national in scope. The group has already achieved a national membership of 75.

It is hoped that PoCoG will attract leading researchers and psycho-oncology health professionals and will facilitate a flow of increased collaborations and the development of high-quality psycho-oncology research with strong links to the clinical cancer community. PoCoG has the potential to become a leading group for psycho-oncology research, attracting research collaborations from around the globe. A great advantage of a collaborative network is the formal and informal mentoring of junior researchers that occurs as an integral part of this process.

PoCoG’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. The aims of PoCoG are:

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 and interests. 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 clinical 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 with an interest in psycho-oncology research. An application form is available by contacting the coordinator and there is no charge to join the group.
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 trials. 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. Participant group coordinators were contacted by telephone. The aims of the project were outlined, verbal consent sought and either a telephone interview 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 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-active support 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 third 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 carers, 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 group.

Cancer support group meetings were most frequently located in a health care setting (see Table 2). Other venues (n = 30; 17%) for meetings included business premises, local clubs or restaurants/cafés. 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 founding 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 often used to 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 = 132; 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, 17 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 (63%).

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 join 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.

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 support groups limited participation to female carers or family members only.

One hundred and eight group coordinators (61%) reported that their support group was currently experiencing some difficulties, including lack of a suitable venue, 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 reflect 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, specific aim, 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 one third of 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

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

<table>
<thead>
<tr>
<th>Group characteristics</th>
<th>No.</th>
<th>%</th>
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<tbody>
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<td></td>
<td></td>
</tr>
<tr>
<td>- 1970-1979</td>
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<tr>
<td>- 1980-1989</td>
<td>16</td>
<td>9</td>
</tr>
<tr>
<td>- 1990-1999</td>
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<td>53</td>
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<tr>
<td>- 2000-2003</td>
<td>65</td>
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<tr>
<td>Setting:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Hospital/health centre</td>
<td>110</td>
<td>60</td>
</tr>
<tr>
<td>- Community centre</td>
<td>48</td>
<td>26</td>
</tr>
<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>
</tr>
<tr>
<td>Financial/administrative assistance:</td>
<td></td>
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<tr>
<td>- Charity</td>
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<td>13</td>
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<tr>
<td>- Member contributions</td>
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<td>24</td>
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<td>- Other external funding source</td>
<td>28</td>
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<td>- Administrative assistance</td>
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<td>Frequency of meetings:</td>
<td></td>
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<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>
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<td>1</td>
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<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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<tr>
<td>Group membership:</td>
<td></td>
<td></td>
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<tr>
<td>- Open group</td>
<td>170</td>
<td>93</td>
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<tr>
<td>- Carers included</td>
<td>155</td>
<td>85</td>
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**Table 2** Location of support groups and specificity of cancer diagnosis

<table>
<thead>
<tr>
<th>Specificity</th>
<th>Sydney based (No.)</th>
<th>Outside Sydney (No.)</th>
<th>Total (No.)</th>
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<tr>
<td>General cancer</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>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</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>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>1</td>
<td>3</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</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>
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</table>
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 and psychotherapeutic intervention. Groups offer support to their patients, while group leaders can be confident of doing so. Participant satisfaction with the program and materials was high. In a health topic characterised by controversy, discussing screening and treatment options by providing information on the options and their medical context of screening and shared decision making in small groups, followed by larger group discussions. The workshops were accredited for professional development points under the Royal Australian College of General Practitioners (RACGP). The workshops were held as part of the Australian Prostate Cancer Foundation’s Prostate Cancer Awareness and Support Program (APCC-PASCAP). The workshop content was informed by literature on the medical context of screening, which includes information about the natural history of the disease; risks and benefits of screening and treatments and that they are vital that men are informed about the advantages and disadvantages of testing and are fully able to participate in decisions regarding their care. Since GPs are the most likely source of information for PSA testing and thus are key players in influencing men’s decision making, it is important for GPs 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-skilling GPs to provide informed choice for prostate cancer testing was initiated by the Queensland Cancer Fund (QCF) after a grant was received 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 prostate cancer testing. 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 medical-legal requirements of informed choice; understanding how men make decisions; and effective patient-physician 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 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-model 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. The 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.

The medical context of screening for prostate cancer includes information about the natural history of the disease, the benefits and harm of screening for and treating prostate cancer; and use and interpretation of PSA testing.

Shared decision making, which covers the medical-legal requirements of informed choice; understanding how men make decisions; and effective patient-physician communication.

A multi-model 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.
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 Melbourne (3148). 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 boundaries.

The pre and post-workshop questionnaires, developed by Steginga, Pinnock and Baade, assessed confidence, intention to discuss, knowledge and workshop satisfaction, and intention to discuss prostate cancer screening with asymptomatic men was assessed using four case-scenario items with five-point Likert scales. Participants’ views on the process of discussing the risks and benefits of prostate cancer testing with men was assessed with one item rated on a five-point Likert scale. Attitude towards prostate cancer screening was measured via 17 items consisting of 12 statements to measure the scale. Knowledge about prostate cancer screening with asymptomatic men was assessed with 12 statements to measure the scale. Knowledge about prostate cancer and their capacity to deliver a workshop within the pilot timeframe.

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This report describes findings from three pilot workshops conducted by the Cancer Education Unit of The Cancer Council Victoria.

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 participation in the workshop. 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=.91). Scores on the actual knowledge scale suggested that some GPs underestimated their knowledge about prostate cancer, with the average score on this scale being around the midpoint (M=8.26, SD=2.58 of a possible total score of 17). Following workshop attendance GPs’ knowledge scores significantly improved (t(27)=4.17, p<0.05), as did their self-rating of understanding about the benefits and risks of prostate cancer testing (t(25)=4.80, p<0.05). Participants’ rating of the importance of making men aware of the benefits and risks of prostate cancer screening testing did not change (t(27)=2.1, p>0.05).

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 with a family history also increased after attendance but did not reach statistical significance. Mean scores and standard deviations for these items from the pre and post-workshop questionnaire are presented in Table 1.

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 card, 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’.

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 the care provided to patients. A further 30% said that ‘some’ of what was learned in the workshop would lead to an improvement in the care 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 message 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 workshop.

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

<table>
<thead>
<tr>
<th></th>
<th>Pre test</th>
<th>Post test</th>
<th>t value</th>
<th>df</th>
</tr>
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<tbody>
<tr>
<td>Mean</td>
<td>Standard deviation</td>
<td>Mean</td>
<td>Standard deviation</td>
<td>t value</td>
</tr>
<tr>
<td>Confidence in discussing testing for a 45-year-old asymptomatic man with a family history</td>
<td>4.57</td>
<td>0.79</td>
<td>4.79</td>
<td>0.50</td>
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<tr>
<td>Intention to initiate a discussion about a situation about testing for a 55-year-old asymptomatic man</td>
<td>4.36</td>
<td>0.73</td>
<td>4.54</td>
<td>0.69</td>
</tr>
</tbody>
</table>

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 5, somewhat confident, to 5, very confident.

** p < .01
*p < .05
** p < .01

Table 2: Participants’ satisfaction ratings with various aspects of the workshop

<table>
<thead>
<tr>
<th>Aspect</th>
<th>Good/Excellent</th>
<th>Fair/Poor</th>
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<tr>
<td>n</td>
<td>%</td>
<td>n</td>
</tr>
<tr>
<td>Speaker (medical content)</td>
<td>60</td>
<td>95.2</td>
</tr>
<tr>
<td>Speaker (communication content)</td>
<td>55</td>
<td>87.3</td>
</tr>
<tr>
<td>Workshop content</td>
<td>56</td>
<td>88.9</td>
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<tr>
<td>Relevance to practice</td>
<td>56</td>
<td>88.9</td>
</tr>
<tr>
<td>Length</td>
<td>54</td>
<td>85.7</td>
</tr>
<tr>
<td>Timing</td>
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<tr>
<td>Presentation slides</td>
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<td>90.5</td>
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<td>GP resource kits</td>
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</tr>
<tr>
<td>Discussion time</td>
<td>53</td>
<td>84.1</td>
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</table>

Note: N=63. Due to missing data percentages may not equal 100
program.

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 that they would be useful for implementing most or all of what they had learned.

While most participants reported that both resources and the summary reference card were encouraging and easy to follow and that they would be useful for their practice. Nevertheless, there were some issues reported 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 Daemen 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. Talbot AA. What patients should be told before agreeing to a blood test that could change their lives. Urology 2003; 61(4): 734-736.
<table>
<thead>
<tr>
<th>University of Sydney</th>
<th>L Khachigian</th>
<th>DNAzymes as Novel Inhibitors of Human Basal Cell Carcinoma Growth</th>
<th>$76,000</th>
</tr>
</thead>
<tbody>
<tr>
<td>University of Sydney</td>
<td>N Suchowelska</td>
<td>Radiobiological Spatial Model for Radiation Therapy</td>
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<td>University of Sydney</td>
<td>S Chapman</td>
<td>Television news on health and medicine in Australia: content, framing and impact</td>
<td>$120,500</td>
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<td>University of Sydney</td>
<td>B Henderson</td>
<td>Regulation of BARD1 localisation and apoptotic function in breast cancer</td>
<td>$52,716</td>
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<tr>
<td>University of Sydney</td>
<td>G Mars</td>
<td>Molecular genetics of melanoma predisposition</td>
<td>$112,100</td>
</tr>
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<td>University of NSW</td>
<td>A Dolnikov</td>
<td>Targeting the IRF2 transcription factor to inhibit leukaemic cell growth</td>
<td>$97,250</td>
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<td>University of NSW</td>
<td>G Menda</td>
<td>The role of pathogenic bacteria in hepatocarcinoma</td>
<td>$107,250</td>
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<td>University of NSW</td>
<td>B Meiser</td>
<td>Evaluation of a Fertility-Related Decision Aid for Young Women with Early Breast Cancer</td>
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<td>University of Sydney</td>
<td>M Boyer</td>
<td>The Effects of Chemotherapy on Cognitive Function in Patients with Testicular Cancer</td>
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<td>University of Sydney</td>
<td>L Trevena</td>
<td>A randomised controlled trial of a meta decision aid for evidence-based preventive activities in general practice</td>
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<td>Response of metastatic melanoma to bi-fold targeted alpha therapy of tumour capillary pericytes and melanoma cells</td>
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<td>Enhancing cancer patient participation when discussing clinical trial enrolment: evaluation of a question prompt list</td>
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<td>Total New Research Project Grants</td>
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**New Research Program Grants**

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<thead>
<tr>
<th>University of Sydney</th>
<th>R Reddel</th>
<th>Alternative lengthening of Telomeres: a target for cancer treatment</th>
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<td>University of NSW</td>
<td>P Hogg</td>
<td>New arsenical-based cancer drugs</td>
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<td>University of NSW</td>
<td>M Morris</td>
<td>Improved treatment outcomes for children with leukaemia</td>
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**New Strategic Research Partnership Grants**

<table>
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<tr>
<th>University of Sydney</th>
<th>A Blain</th>
<th>New South Wales Pancreatic Cancer Network</th>
<th>$250,000</th>
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<tr>
<td>University of NSW</td>
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<td>Psychosocial impact of hereditary cancer and the development and evaluation of effective patient education and decision support strategies</td>
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<td>University of Sydney</td>
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<td>The Colorectal Cancer Research Consortium: a model for the integration of biomedical research into patient care</td>
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<td>Total New Research Grants</td>
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<td>$3,516,639</td>
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**Continuing Research Project Grants**

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<tr>
<th>University of NSW</th>
<th>L Khachigian</th>
<th>DNAzymes as Novel Inhibitors of Human Basal Cell Carcinoma Growth</th>
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<tr>
<td>University of NSW</td>
<td>R MacKenzie</td>
<td>Characterisation of a novel mechanism that prevents immortalisation and malignant transformation</td>
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<tr>
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<td>Total New Research Grants</td>
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<td>$3,516,639</td>
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**New Research Program Grants**

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<th>Total Laparoscopic Hysterectomy (TLH) vs Total Abdominal Hysterectomy (TAH) for the Treatment of Endometrial Cancer</th>
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<td>N Suchowelska</td>
<td>Radiobiological Spatial Model for Radiation Therapy</td>
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<tr>
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<td>$48,400</td>
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<tr>
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<th>Alternative lengthening of Telomeres: a target for cancer treatment</th>
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**New Strategic Research Partnership Grants**

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<th>University of Sydney</th>
<th>A Blain</th>
<th>New South Wales Pancreatic Cancer Network</th>
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<tr>
<td>University of NSW</td>
<td>B Meiser</td>
<td>Psychosocial impact of hereditary cancer and the development and evaluation of effective patient education and decision support strategies</td>
<td>$249,856</td>
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<td>University of Sydney</td>
<td>R Ward</td>
<td>The Colorectal Cancer Research Consortium: a model for the integration of biomedical research into patient care</td>
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<th>Total Laparoscopic Hysterectomy (TLH) vs Total Abdominal Hysterectomy (TAH) for the Treatment of Endometrial Cancer</th>
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<tr>
<td>University of Sydney</td>
<td>N Suchowelska</td>
<td>Radiobiological Spatial Model for Radiation Therapy</td>
<td>$92,650</td>
</tr>
<tr>
<td>University of Sydney</td>
<td>S Chapman</td>
<td>Television news on health and medicine in Australia: content, framing and impact</td>
<td>$120,500</td>
</tr>
<tr>
<td>University of Sydney</td>
<td>B Henderson</td>
<td>Regulation of BARD1 localisation and apoptotic function in breast cancer</td>
<td>$52,716</td>
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<tr>
<td>University of Sydney</td>
<td>G Mars</td>
<td>Molecular genetics of melanoma predisposition</td>
<td>$112,100</td>
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<tr>
<td>University of NSW</td>
<td>A Dolnikov</td>
<td>Targeting the IRF2 transcription factor to inhibit leukaemic cell growth</td>
<td>$97,250</td>
</tr>
<tr>
<td>University of NSW</td>
<td>G Menda</td>
<td>The role of pathogenic bacteria in hepatocarcinoma</td>
<td>$107,250</td>
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<tr>
<td>University of NSW</td>
<td>B Meiser</td>
<td>Evaluation of a Fertility-Related Decision Aid for Young Women with Early Breast Cancer</td>
<td>$89,875</td>
</tr>
<tr>
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<tr>
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<td>Identification of the role of a novel angiogenic gene, VasGAP, in development and cancer</td>
<td>$76,000</td>
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<td>Carboplatin Flat Dosing versus Intrapatient Dose Escalation in First Line Chemotherapy of Ovarian Cancer</td>
<td>$60,000</td>
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<tr>
<td>The cellular regulation of sphingosine kinase by eEF1A and its role in tumorigenesis</td>
<td>$70,100</td>
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<tr>
<td>Function of the FOR/WWOX gene and its contribution to cancer cell biology</td>
<td>$80,025</td>
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<tr>
<td>Identification of Men with a genetic predisposition to Prostate Cancer and their Clinical Treatment - The IMPACT Study</td>
<td>$47,700</td>
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<tr>
<td>A pilot study of the effectiveness of academic detailing on dyspnoea in cancer patients in a palliative care setting</td>
<td>$65,263</td>
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<tr>
<td>Improving the measurement of minimal residual disease in acute leukaemia</td>
<td>$76,000</td>
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<tr>
<td>Enhancing cancer patient participation when discussing clinical trial enrolment evaluation of a question prompt list</td>
<td>$36,100</td>
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<td>The Effects of Chemotherapy on Cognitive Function in Patients with Testicular Cancer</td>
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<td>Androgen-receptor status as a determinant of breast cancer risk</td>
<td>$76,000</td>
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<tr>
<td>Chemotherapy-induced diarrhoea: characterisation of mechanism</td>
<td>$70,100</td>
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<tr>
<td>Caspase-2 function in apoptosis and disease</td>
<td>$70,100</td>
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<td>A potential novel signalling pathway regulating epithelial-mesenchymal transition</td>
<td>$70,100</td>
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<td>Gene Delivery of Tissue Inhibitors of Matrix Metalloproteinases for Pulmonary Metastases</td>
<td>$76,000</td>
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**TOTAL RESEARCH FUNDED** $10,004,698

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**Reports**

- Evaluation of intervention to support carers
- Development and validation of Consumer Research Review Criteria: $30,500
- Training and Development Needs of Support Group Leaders: $36,000
- Total Other Research Programs and Commissioned Research: $5,091,014

**TOTAL RESEARCH FUNDED** $10,004,698
### The Cancer Council Tasmania

#### Research grants

**Dr Alison Venn**

Exposure to high dose oestrogens in adolescence: long term effects on mammographic breast density

$3,000

**Associate Professor Greg Woods**

Long term effects of UV-B irradiation on the developing skin immune system

$37,750

**Dr Penny Blundell**

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 (emperipolisesis)

$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

**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

$2,180

**Total funded by DCLF**

$37,180

#### Other research grants

**To be announced**

Jeanne Foster Scholarships

$5,000

Launceston General Hospital & Clinical Trial Data Managers

$54,500

**Royal Hobart Hospital**

To be announced

Tasmanian Acord Workshop for new researchers

$2,500

**Clare Healy**, Clinical Nurse, **Athena Karydis Foniadakis Scholarship**

$5,000

**Gillian Sheldon-Collins**, Nurse, **Athena Karydis Foniadakis Scholarship**

$2,000

**Melinda Minstrell**, Nurse, **The Cancer Council Tasmania Post Graduate Research Scholarship**

$24,000

**Mt Kelvin Low Han Yang**, University of Tasmania

$10,000

**Total other research grants**

$103,000

**Total Research Funded**

$235,850

### The Cancer Council Victoria

#### Fellowships

**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 leukaemia in CML patients treated with ABL kinase inhibitors

$68,527

**Professor R John Simes, Professor John R Zaksberg**, A/Professor Paul Waring, A/Professor G Bruce Mann, A/Professor B Mark Smithers, Dr Susan Kotaske, Dr Guy Van Hazel

NHBC Clinical Trial Centre, University of Sydney

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

$10,834

**A/Professor Murray Whitelaw**

School of Molecular and Biomedical Science, University of Adelaide

Investigating the role of Sm2 in pancreatic cancer

$64,500

**Dr Mark Guthridge**

Human Immunology, Hanson 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 Groenths**

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

**A/Professor Murray Whitelaw**

Investigating the role of Sim2 in pancreatic cancer

$64,500

**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 Sakk, University of Adelaide

$81,650

**Peter Nelson Leukaemia Research Fellowship**

M Guthridge, IMVS

$87,119

#### Senior Fellowships

**C Ricciardelli, University of Adelaide**

$87,119

Pending new appointment

$87,119

**Total Senior Fellowships**

$174,238

**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

#### Fellowship programs for 2006

**Chair in Cancer Care – Professor Ian Olver**

Travel Grants

$100,000

**Travel Grants**

$35,000

**Distinguished Visitors**

$15,000

**Distinguished Visitors**

$15,000

**The Freemasons Cancer Research Scholarship (1)**

$25,000

**Data Managers Program**

$152,000

**Microarray Bioinformatics**

$38,468

**Total of Other Research Programs**

$380,468

**TOTAL RESEARCH FUNDED**

$2,164,052

### The Cancer Council Victoria

#### Fellowships

**Carden Fellowship**

Regulatory control of normal and leukaemic cells

$200,000

**D Metcalf, Walter and Eliza Hall Institute of Medical Research**

Reducing the burden of breast cancer

$144,500

**Colebatch Fellowship**

K Phillips, Peter MacCallum Cancer Centre

Development of targeted therapies for cancer

$144,500

**W Bruce Hall Cancer Research Fellowship**

A Sakk, University of Adelaide

$81,650

**Peter Nelson Leukaemia Research Fellowship**

M Guthridge, IMVS

$87,119

**The Freemasons Cancer Research Scholarship (1)**

$25,000

**Data Managers Program**

$152,000

**Microarray Bioinformatics**

$38,468

**Total of Other Research Programs**

$380,468

**TOTAL RESEARCH FUNDED**

$2,164,052
REPORTS

Total Fellowships $584,000

Research Grants

D Bowtell, A de Fazio, P Blomfield, N Zips, D Gertig, M Friedlander, P Hannet, D Wyld, M Davy

Peter MacCallum Cancer Centre

Molecular epidemiology of ovarian cancer: Australian ovarian cancer study – Western Australia, Tasmania and a national clinical follow-up core $69,993

W Chen

Ludwig Institute for Cancer Research

Study immunomodulation of natural and induced anti-NY-ESO-1 T cell responses to optimise future cancer vaccine strategies $70,000

H Cheng, H Zhu, T Mullhem

University of Melbourne

Regulation of activity and subcellular localisation of the tumour suppressor PTEN $70,000

P Choong, C Dass

St Vincent's Hospital

The resistance of growth plate cartilage to invasion by tumour: PEDF, a potent anti-angiogenic factor regulates osteosarcoma behaviour $70,000

C Christophi, V Murailahan, A Shulkes

University of Melbourne

Mechanisms of action of thermal ablation on colorectal liver metastases $70,000

R Chia, D Joseph, I Harvey, V Ahern

Peter MacCallum Cancer Centre

A phase III study of regional radiation therapy in early breast cancer $70,000

C Clyne, M Jones

Prince Henry's Institute of Medical Research

Role of the orphan nuclear receptor LRH-1 in breast cancer proliferation $67,922

W Cook, M Southey

University of Melbourne

Myeloid leukemia suppressor genes of mouse and man $70,000

P Darby, M Kenhawa, J Trapani

Peter MacCallum Cancer Centre

Preclinical development of gene-engineered T cells for immunotherapy of cancer $70,000

G Deuscheine, N Sproy, A Stapleton, H Gurney, E Beller

Peter MacCallum Cancer Centre

The timing of androgen deprivation in relapsed or non-curable prostate cancer patients $10,650

F Fuller

Prince Henry's Institute of Medical Research

Characterisation of the molecular pathogenesis of ovarian granulosa cell tumours $70,000

C Hawkins, D Ashley, H Friedman

Murdoch Children's Research Institute

Factors influencing TRAIL sensitivity in ex vivo malignant glioma $70,000

J Hopper, E Smibert, A Mitchell, K Waters

Murdoch Children's Research Institute

Victoria Paediatric Cancer Family Study $70,000

P Lambert, S Russell, H Richardson

Peter MacCallum Cancer Centre

The role of mammalian shibble in proliferation and tumourigenesis $70,000

D Jans

Monash University

The tumour cell-specific nuclear targeting signal of chicken anaemia virus VP-3: potential for anti-tumour therapy $65,000

R Johnstone

Peter MacCallum Cancer Centre

Mechanisms of action of histone deacetylase inhibitors: novel anti-cancer drugs $70,000

R Krakor, A Strasser

Walter & Eliza Hall Institute of Medical Research

Defining how the essential apoptosis regulators Bax and Bak mediate apoptosis $70,000

G Lindeman, G Mitchell, A Stapleton

Peter MacCallum Cancer Centre

Identification of men with a genetic predisposition to prostate cancer and their clinical treatment - The IMPACT Study $63,300

G McArthur

Peter MacCallum Cancer Centre

Targeting CDK2 in breast cancer associated with mutations in BRCA1 $70,000

J McCluskey, J Rossjohn

University of Melbourne

The structural and functional basis of tumour recognition by NKT cells $70,000

M McCormack, S Jane, D Curtis

Royal Melbourne Hospital

Analysis of the interaction of the T-cell oncoproteins Sc1 and Lmo2 as a therapeutic target for T-cell acute lymphoblastic leukemia $70,000

M Michael, B Burmeister, A Wirth

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 $22,238

C Mitchell

Monash University

Role of the PIP lipid phosphatase in cell differentiation and polarity $70,000

E Nice, J Celton, P Gibbs

Ludwig Institute for Cancer Research

Development of a generic biosensor platform for cancer biomarker screening $27,750

A Obermar, M A Cartney, T Manolittas, M Janda, F Chan

Monash Medical Centre

Total Laparoscopic Hysterectomy (TLH) vs Total Abdominal Hysterectomy (TAH) for the treatment of endometrial cancer $70,000

J Oliver, G Turner, V Marshall, M Boyer, P Maruff

Peter MacCallum Cancer Centre

The effects of chemotherapy on cognitive function in patients with testicular cancer $53,500

H Puthalaith

Walter & Eliza Hall Institute of Medical Research

Post translational regulation of the pro-apoptotic protein BMW $55,000

R Ramaiah, I Bertocchi, E Stanley

Peter MacCallum Cancer Centre

CSF-1 is an essential intestinal epithelial cell mitogen $70,000

G Ruzibider, S McPherson

Monash Institute of Medical Research

Early origins of prostate cancer $70,000

P Schofield, S Janson-Fisher, S Aranda

Peter MacCallum Cancer Centre

A randomised controlled trial of consumer-driven multi-disciplinary care to manage the needs of men with prostate cancer $70,000

A Scott, V Rayzman

Ludwig Institute for Cancer Research

Development and evaluation of a transgenic mouse model for anti-human A33 targeted therapy $70,000

J Simes, J Jallberg, P Warne, B Mann, E Smithers, D Katausk, D Van Hazel

Peter MacCallum Cancer Centre

Intermediate and high risk, resected gastro-intestinal stromal tumours expressing kit - RCT of adjuvant imatinib mesylate $13,134

M Smyth

Peter MacCallum Cancer Centre

TRAIL mediated immunosurveillance, immunoselection and immunotherapy of cancer $70,000

M Tattersall, M Jefford, I Oliver

Peter MacCallum Cancer Centre

Enhancing cancer patient participation when discussing clinical trial enrolment: evaluation of a question prompt list $36,100

T Togias, Monash University

Regulation of the Src proto-oncogene $70,000

P Visvan, M Quinl, J Simes, M Friedlander, M Buck, M Davy

Walter & Eliza Hall Institute of Medical Research

Catabolism Flat Dosing versus Intratrop Dose Escalation in first line chemotherapy of ovarian cancer $30,000

Total research grants $2,263,237

Postdoctoral Research Fellowships

A Deans, Peter MacCallum Cancer Centre $30,100

L Huntington, Walter & Eliza Hall Institute of Medical Research $61,000

C McNeely, St Vincent's Institute $61,000

S Ting, Royal Melbourne Hospital $30,100

S Willis, Walter & Eliza Hall Institute of Medical Research $30,100

Two fellowships to be appointed mid-year $61,000

Total postdoctoral research fellowships $274,500

Postgraduate Research Scholarships

S Anno, Peter MacCallum Cancer Centre $22,060

F Barnett, Ludwig Institute for Cancer Research $27,750

J Dow, Peter MacCallum Cancer Centre $50,938

C Fedele, Monash University $32,350

J Fletcher, St Vincent's Institute $32,050

H Gan, Ludwig Institute for Cancer Research $31,060

K Horsan, Monash University $10,938

CancerForum Volume 30 Number 1 March 2006

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50

51
**Cancer Council WA**

**Research grants**

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<th>Amount</th>
</tr>
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<tr>
<td>E Lee, Walter &amp; Eliza Hall Institute of Medical Research</td>
<td>$22,718</td>
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</tr>
<tr>
<td>M Loughrey, Peter MacCallum Cancer Centre</td>
<td>$2343</td>
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</tr>
<tr>
<td>K Mason, University of Melbourne</td>
<td>$28,450</td>
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</tr>
<tr>
<td>E Nark, Walter &amp; Eliza Hall Institute of Medical Research</td>
<td>$23,350</td>
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<tr>
<td>J Stone, University of Melbourne</td>
<td>$9017</td>
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<tr>
<td>N Thomas, Monash University</td>
<td>$22,950</td>
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<tr>
<td>M Wall, Peter MacCallum Cancer Centre</td>
<td>$27,920</td>
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<tr>
<td>L Williams, Peter MacCallum Cancer Centre</td>
<td>$22,718</td>
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**Vacation Studentships**

15 six week summer Vacation Studentships were awarded

**Total Medical & Scientific Support**

$312,852

**Support for Medical and Scientific Activities**

$69,316

**Total support for Cancer Control Research Institute programs**

$7,459,845

**Total Cancer Control Research Institute programs**

$7,459,845

**TOTAL RESEARCH FUNDED**

$10,963,750

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**THE CANCER COUNCIL WA**

**Research grants**

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

$480,500

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**Edward and Patricia Usher Student Vacation Research Scholarships**

<table>
<thead>
<tr>
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</thead>
<tbody>
<tr>
<td>C Leong</td>
<td>Expression and purification of pre-B cell colony enhancing factor (PBEF)</td>
<td>$2000</td>
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<tr>
<td>J Rampalini</td>
<td>Inhibition of osteoclastogenesis and osteoclast signalling pathways by protease inhibitors in multiple myeloma</td>
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</tr>
<tr>
<td>D Tan</td>
<td>Preventing the unwanted side effects of the anticancer drug cyclophosphamide</td>
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**John Nott travelling fund**

To invite Prof 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.

**Total John Nott travelling fund**

$10,000

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**Professorial Chairs**

<table>
<thead>
<tr>
<th>Position</th>
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<tbody>
<tr>
<td>Chair of Palliative Care Research</td>
<td>Edith Cowan University</td>
<td>$100,000</td>
</tr>
<tr>
<td>Chair of Behavioural Cancer Research</td>
<td>Curtin University of Technology</td>
<td>$125,000</td>
</tr>
<tr>
<td>Chair of Clinical Cancer Research</td>
<td>University of Western Australia</td>
<td>$250,000</td>
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</table>

**Total professorial chairs**

$475,000

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**Cancer Research Equipment Initiative**

<table>
<thead>
<tr>
<th>Equipment</th>
<th>Institution</th>
<th>Amount</th>
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</thead>
<tbody>
<tr>
<td>BD LSRII Flow Cytometry System</td>
<td>U Keas – Teledyne Institute for Child Health Research</td>
<td>$187,500</td>
</tr>
<tr>
<td>Cellscreen</td>
<td>N Lenzo – WA PET Service</td>
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</tr>
<tr>
<td>Digital microscope</td>
<td>P Klinken – WA Institute for Medical Research</td>
<td>$222,675</td>
</tr>
<tr>
<td>UMA BeadStation 500GX and Genotyping package</td>
<td>A Charles – Princess Margaret Hospital</td>
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<td>ICBM BeadStation 500GX and Genotyping package</td>
<td>L Palmer – University of Western Australia</td>
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**Total Cancer Research Equipment Initiative**

$899,975

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**Queensland Cancer Fund**

**Research grants**

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<tr>
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<tbody>
<tr>
<td>W Beadle</td>
<td>The effect of adjuvant chemotherapy on cognitive functioning in early breast cancer</td>
<td>$75,000</td>
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<tr>
<td>B Wyse</td>
<td>Identification of p27 binding partners in androgen-treated breast cancer cells</td>
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<tr>
<td>S Murphy</td>
<td>Which genes transform liver progenitor cells?</td>
<td>$2000</td>
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<td>J Ngeow</td>
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<td>B Knezevic</td>
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**Total other research grants**

$59,000

**TOTAL RESEARCH FUNDED**

$1,940,475

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**Queensland Cancer Fund**

**Professorial Chairs**

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**Total professorial chairs**

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**Queensland Cancer Fund**

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**Queensland Cancer Fund**

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**Total other research grants**

$59,000

**TOTAL RESEARCH FUNDED**

$1,940,475
Skin Clinics Project $62,652
Total Other Research Grants $251,256

PhD Program 2006
2006 – 2008
John Earnshaw Scholar 2006
C Zapata, The University of Queensland
M Davidson, The University of Queensland
2005 – 2007
John Earnshaw Scholar 2005
M Hsu-H Li-Lue, Queensland Institute Medical Research
K Wynn, Queensland Institute Medical Research
C Murias, University of Queensland
2004 – 2006
John Earnshaw Scholar 2004
M Jones, Queensland Institute of Medical Research
A Ramsay, Queensland University of Technology
S Mattarollo, University of Queensland

Total PhD Program 2006 $175,600

Hospital Based – Data Managers
Royal Children's Hospital - Radiation Oncology
Royal Children's Hospital
Mater Hospital – Oncology Centre
Royal Brisbane Hospital – Radiation Oncology
- Medical Oncology
- Gynaecology Oncology
Darling Downs Medical Oncology Unit
Princess Alexandra Hospital - Gynaecology Oncology
Mater Children's Hospital - Medical Oncology
Townsville Hospital
Data Managers Total $398,744

TOTAL RESEARCH FUNDING $6,692,671

NATIONAL BREAST CANCER FOUNDATION

Research Grants
NEW SOUTH WALES

NBCF Postdoctoral Fellowship
L Cabebe, University of Sydney
LM64-DEAF-1 interactions in cellular development and breast cancer $67,500

NBCF Scholarship
K Skelding, University of Newcastle
Viral Oncology of Human Breast Cancer $30,000

NBCF Concept Award
C Clarke, University of Sydney
Call architectural determinants of transcriptional disruption in breast cancer $75,000

NBCF Concept Award
S Jones, University of Wollongong
Communicating the importance of breast cancer screening via counterfactual thinking messages $74,313

Kathleen Cunningham Research Grant
M Eisenstein, University Of NSW
Understanding barriers to effective cross-cultural communication about prognosis of metastatic breast cancer $105,000

Kathleen Cunningham Research Grant
S Clark, Garvan Institute
Epigenetic activation of c-fms oncogene in breast cancer $73,250

Kathleen Cunningham Research Grant
G Llewellyn, University Of Sydney
Optimising participation by women with disabilities in mammography screening $67,958

Kathleen Cunningham Research Grant
C Scott, University Of Sydney
Role of a soluble receptor in regulating proliferation in breast cancer $65,250

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% reductions), 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.

Referrer feedback on the value of the respite care program of The Cancer Council South Australia

A brief questionnaire was sent to all health professionals who referred clients to The Cancer Council South Australia's (TCCSA) Respite Care program during the first 6 months of 2005. The purpose of the questionnaire was to determine whether the program was meeting the needs of their clients and was still necessary given the availability of commonwealth grants for carer respite.

Results indicate that TCCSA’s Respite Care Program is an important source of funding and is perceived by some to provide more flexibility than the Commonwealth Carers Respite Funding. Often both sources of respite funding are used to create an extended care package that allows patients to die at home, which may not have been possible otherwise.

Evaluation of the local government sun protection program

The local government sun protection survey has been conducted since 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. 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 State Government levels, with the aim of strengthening legislative requirements for councils to protect it’s community members.

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
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 following 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; 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 evaluations 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 graphics, 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 used, 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 educatory 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 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 and focus groups 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 with 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 journey 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 challenges 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 figure ground executions are most memorable; attention is best gained by presenting new information; high media weights predict high advertising cut-through and response rates (mediated by message and execution); sadness and fear are better motivators to quit than humour and entertainment; and advertisements aimed at adults are equally effective on teenagers.

n Centre for Behavioural Research in Cancer Control (CBRCC) WA
National study of sun protection behaviours and related attitudes
In 2003, with funding from state cancer councils, the Victorian Government Department of Health and Ageing and the National Cancer Control Initiative, a research group coordinated by CBRCC was convened to carry out the first national survey to monitor Australians’ sun protection behaviour to assist the development of skin cancer prevention strategies.

A total of 5073 interviews of adults, 699 interviews of adolescents and 1140 parent proxy reports of children aged up to 11 years were conducted on Monday evenings over eight weeks in 2004-2005. Reports released in 2004 and 2005 on adults and adolescents have previously been circulated to Cancer Councils.

In the third report on children released in late 2005, compared with adults and adolescents, children were overall better protected from the sun during their outdoor activities. Findings indicated 73% of children were outdoors during peak UV times on summer weekends and spent on average 110 minutes outdoors. When outdoors, 42% of children wore a protective style of shirt or wore sunscreen (SPF15+), while shade, sunglasses and clothing were less commonly utilised. However, 8% of children were sunburnt when they were outdoors on summer weekends suggesting room for further improvement. A significant association with parent role modelling of sun protective behaviours was also found. These and other detailed findings of the study will assist Cancer Councils in refining specific strategies to encourage children’s skin cancer prevention.

Exposure to and perceptions of the dangers and illnesses of passive smoking among Victorians: 2004
Data from the 2004 Victorian Population Survey indicates that many Victorian adults are exposed to passive smoking. Almost half (48%) reported being somewhere in the past 48 hours where people have been smoking cigarettes. Most respondents (80%) said they had some level of concern about being exposed to passive smoking. Seventy-three per cent indicated they believed lung cancer can be caused by passive smoking, followed by asthma (70%), emphysema (65%) bronchitis (61%) and heart disease (60%). There was a relatively low level of belief among respondents that sudden infant death (30%), miscarriage (30%) and cancer of the cervix (16%), could be caused by passive smoking. Although most non-smokers suggested they did not like people smoking near them, only 6% of non-smokers said they would ask a person to stop smoking if they lit up a cigarette near them. Overall, 7% said they would simply move away (7%) or do nothing (1%).

Overall, this report suggests that many Victorian adults are concerned about being exposed to second-hand smoke and believe that passive smoking can cause a range of serious illnesses. Furthermore, findings suggest that using a ‘common courtesy’ approach (asking people not to smoke) is not effective on its own to eliminate exposure to second-hand smoke, and that legislative reforms are likely to be the only effective strategy to minimize exposure.

Does the effect of anti-smoking television advertising on calls to a Quitline vary by socioeconomic status?
It has been suggested that smoking interventions are less effective with low socioeconomic groups. In a recent paper, Mohammad Shahpush, along with Melanie Wakefield, Matt Spittal and Sara Mattsson, CBRC assessed socioeconomic differences in the impact of anti-tobacco television advertising on the number of calls to the Quitline in Victoria. These television advertisements predominantly featured hard-hitting messages on the health risks of smoking, promoting change to non-smoking 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 call volume did not vary by SES in Victoria. That is, the increase in the number of Quitline calls as a response to a given 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 Papers Series.

n Centre for Health Research & Psycho-ontology (ChERP)
A monetary incentive increases postal survey response rates for pharmacists
Postal surveys are a well used tool for collecting data from a range of health related settings. Various incentives have been trialled to maximise response rates, with one of the most effective strategies being the use of a monetary incentive. Important community-based care providers such as retail or community pharmacists have received little attention to date.

Dr Christine Paul and colleagues undertook research to explore the impact of a $20 incentive on response rates for pharmacists. A sample of 700 pharmacies in NSW was selected at random, with pharmacies eligible to participate if they had sold any Nicotine Replacement Therapy or bupropion in the previous month. The pharmacist in charge was sent a primer postcard followed by a brief survey regarding pharmacotherapies and willingness to participate. One main reminder and then one telephone reminder was provided to non-responders. Half of the sample was randomly allocated to receive an offer of $20 gift voucher. The response rate for the voucher group was 65.9% and 53.5% for the no-voucher group. The odds of response from the voucher group was 1.68 (95% CI=1.23, 2.30) times greater than for the non-voucher group.

The results indicate that a significant increase in pharmacists’ response rates to a postal survey can be achieved using a modest monetary incentive and that this incentive acts independently from using reminders that also increase response rates.

A new support program for men diagnosed with prostate cancer: The Prostate Consultation and Referral Program. 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 Prostate Consultation and Referral Program (PCRP) was established in Queensland; and in collaboration with the Queensland University of Technology, examine the genetic biomarkers associated with prostate cancer and their relationship to clinical outcomes.

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 information, a vital component of helplines is the support they provide patients facing cancer-related decisions that has not yet been described. Decision support is a key need area in cancer care throughout the cancer trajectory, from cancer risk reduction and prevention, through to early detection, 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 post-program assessment of decision support knowledge and skills. The training program consisted of a web-based auto-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.

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 on the psychosocial distress associated with cancer and in this distress; 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 from the locations of the 4 participating Cancer Helplines - New South Wales, South Australia, Victoria and 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 and regarded as a 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 Australian 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’ 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 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 gplearning, the online educational arm of the RACP, 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 with 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
diagnosed with prostate cancer.

In order to effectively meet the supportive care needs of men diagnosed with prostate cancer, research needs to identify both men who are at risk of poorer adjustment following diagnosis and treatment of prostate cancer and effective treatment targets. In collaboration with Griffith University we examined the predictors of the course of psychological adjustment over time for men diagnosed with localised prostate cancer in 111 newly diagnosed men. Multilevel modelling techniques were applied to the data across four time periods: pre-treatment, and twelve months, 12 months and 24 months post-treatment.

Optimistic men were more likely to make a positive threat appraisal in the early stages of prostate cancer diagnosis and two years after treatment, the positivity of this appraisal results in better outcomes. By contrast, men who are not optimistic were less likely to make a positive cognitive appraisal of their situation and experienced more negative psychological outcomes. Men who are already optimistic at first presentation in the early stages of cancer treatment may require less intensive intervention as they are likely to be utilising positive cognitions and coping strategies that are associated with positive psychological outcomes. These results have implications for the development of supportive programs for men diagnosed with localised prostate cancer.

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 for men who have spent considerable time living 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, targeting this group. The key deliverables for this proposal are a radio community service announcement, brochure and poster with the concept “Because Grown-Up Sun Needs Protection Too”. Further development of the campaign and evaluation will take place in 2006.

Research in the Pipeline

n TCRC

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.) TCRC has planned an extended evaluation around the smoke-free laws. To date TCRC 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. TCRC has also coordinated baseline and follow-up surveys with convenience 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 Council for Australia 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 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 products 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 (tax, smoke-free laws etc.). The project will then investigate the role of these tobacco control efforts on changes in smoking over time among the population baseline and focus on current and prospective subgroups.

The project coordinator for this study is Sarah Dunkin. 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) diagnose with DCIS in 2005/06/07 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 Claire Davey and Myee Fraden.

n CHeRP

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 this industry 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 the tobacco industry. The survey was carried out 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 most residents 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 in the second stage 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 VCRC

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 model of care

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, one in five per cent of students aged 12-17 years smoke 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 is considered an emerging issue for tobacco control advocacy programs.

The Pool Cool program (Glänz 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 TCRE

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

Marianne Hoey and Dr Valerie Sedlky have joined the TCRE team as evaluation officers. Sarah Ellis-Steinborn joined the team as an Administration Officer. TCRE 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 conference.

COSA Annual Scientific Meeting 2005

Sandro Porceddu  Meeting Convenor

Email: Sandro.Porceddu@health.qld.gov.au

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 Turbal 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 enthralling 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.

CROSSING THE BOUNDARIES: A NEW ERA IN CANCER CONSUMER PARTICIPATION

Report to COSA Annual Scientific Meeting, November 2005

Jane Crouchshank  Steering Committee, Cancer Voices Australia

Email: jane_crouchshank@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 meeting.
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” and “meeting 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 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 – its 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 cancer or who has 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.”

GP’s 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
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
Cancer Care Services
Royal Brisbane & Women’s Hospital

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 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.

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
The Townsville Cancer Centre
Townsville Hospital, Queensland

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 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?

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 centred-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?

In light of this level one evidence, is “early or late” still controversial?

A topic which is truly controversial, in spite of level one evidence, postoperative radiotherapy for completely resected non-small cell lung cancer, is discussed by Haynes and Machay in detail. The mauling they give the PORT meta analysis (which showed a detriment for that kind of information. Nevertheless, I learned a lot from reading this book and can recommend it as a useful reference for those interested in the rapidly evolving radiotherapeutic management of lung cancer. One final quibble: the index, occupying only three pages for a book of this size, is totally inadequate.

David Ball
Lung Service, Peter MacCallum Cancer Centre, Victoria
The Biology of Skeletal Metastases

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 on 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 transplantable 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 PTEN, matrix metalloproteases, endothelins, type I collagen and MMP-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 RANK, RANKL 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

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


Cancer in Context: A Practical Guide to Supportive Care


British Clinical Psychologist James Brennan and Research Fellow Clare Moynihan, describe this book as a “textbook of supportive care in oncology” (p vii). 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 of 21 self-report assessment tools which are commonly used in research studies to measure psychological distress. 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 used in a clear and accessible way. It manages to offer graphs and colour plates to get the information across.

The chapters cover epidemiology, risk, pathology and new developments. This short text offers the same for those undertaking an undergraduate degree. It is doubly useful for 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.

The strength 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 subgroups are simply unrealistic in already over-stretched and under-resourced oncology treatment centres. The resources required to establish outreach teams to attend specifically to 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.

The chapters cover epidemiology, risk, pathology and new developments. This short text offers the same for those undertaking an undergraduate degree. It is doubly useful for 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 0-7295-3746-3 376 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

M Baum, H Schipper
Health Press (2005)
ISBN 1-903734-62-2 143 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 characters and plot 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
BOOK REVIEWS

Hematology – Basic Principles and Practice (4th Edition)

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

This book provides an excellent, concise up-to-date source of basic medical information on both malignant and nonmalignant 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, pathiology, 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 haemolytic 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
oncological condition.

Linda Ewing
Haematology/Oncology Unit
Mater Children’s Hospital, Queensland

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 hard-cover 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

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CancerForum Volume 30 Number 1 March 2006
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<td>Proteogenomics for Diagnosis, Imaging and Therapy of Cancer</td>
<td>California, United States</td>
<td>Sidney Kimmel Cancer Center Conference, Dr. Albert Ossannenhoff or Dr. Jan Schmitz, 7916 Convoy Court 92111-1212 San Diego Tel: +1 858 560 9921 Fax: +1 858 565 9954 E-mail: <a href="mailto:skccresearch@skcc.org">skccresearch@skcc.org</a> Web: <a href="http://www.skcc.org/SKCC_conference.html">www.skcc.org/SKCC_conference.html</a></td>
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<td>2-3</td>
<td>The Role of Endoscopy in The Management of Gastrointestinal Neoplasia</td>
<td>Sesto Europe</td>
<td>European School of Oncology (ESO), Milan, Italy Tel: +39 2 8546 451 Fax: +39 2 8546 445 Email: <a href="mailto:conferences@esosenologia.org">conferences@esosenologia.org</a> Web: <a href="http://www.esosenologia.org">www.esosenologia.org</a></td>
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<td>Therapeutic Advances in the Treatment of Gastrointestinal Malignancies</td>
<td>Arizona, United States</td>
<td>The Center for Biomedical Continuing Education, Zach Lenz 1707 Market Place, #350 75063 Irving Tel: +1 214 260 9024 Fax: +1 214 260 0408 E-mail: <a href="mailto:breastbreastbox@cox.com">breastbreastbox@cox.com</a> Web: <a href="http://www.thelbc.org/home.asp">http://www.thelbc.org/home.asp</a></td>
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<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: +1 312 321 4099 Fax: +1 312 673 6959 E-mail: <a href="mailto:sgo@society.org">sgo@society.org</a> Web: <a href="http://www.society.org/meetings/2006Annual/">www.society.org/meetings/2006Annual/</a></td>
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<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 Miami Beach, Florida Tel: +1 416 934 9555 Fax: +1 416 961 4819 E-mail: nosogancancer.ca Web: <a href="http://www.society.org/meetings/2006Annual/">www.society.org/meetings/2006Annual/</a></td>
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<td>Collaborating in Cancer Research</td>
<td>Cardiff, United Kingdom</td>
<td>Wales Cancer Institute, Miss J Price c/o Wales Cancer Bank Cardiff Medical Centre Heath Park Cardiff CF144U Cardiff Tel: +44 (0) 29 20682108 Fax: +44 (0) 29 20682101 E-mail: <a href="mailto:info@collaboratingincancerresearch.com">info@collaboratingincancerresearch.com</a> Web: <a href="http://www.collaboratingincancerresearch.com">www.collaboratingincancerresearch.com</a></td>
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<td>3rd Annual Winter Lung Cancer Conference</td>
<td>Florida, United States</td>
<td>The Center for Biomedical Continuing Education, Megan Ollinger 1707 Market Place Blvd., Ste. 370 75063 Irving Tel: +1 972 929 1990 Fax: +1 972 929 1901 E-mail: <a href="mailto:info@thelbc.org">info@thelbc.org</a> Web: <a href="http://www.thelbc.org/currentactivities.asp">www.thelbc.org/currentactivities.asp</a></td>
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**CALENDAR OF MEETINGS**

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<td>Heidelberg, Germany</td>
<td>German Cancer Research Centre, Otmar D. Wiestler, Neuenheimer Feld 280 69120 Heidelberg Tel: +0049 6221 428281 or 422163 Fax: +0049 6221 423840 E-mail: <a href="mailto:wischet@dkfz.de">wischet@dkfz.de</a> <a href="mailto:a.proksch@dkfz.de">a.proksch@dkfz.de</a> Web: <a href="http://www.wfcf.org/en/contents/allandcancer.con">www.wfcf.org/en/contents/allandcancer.con</a></td>
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<td>3rd International Conference on Translational Research and Pre-Clinical Strategies in Radiation Oncology (ICTR2006)</td>
<td>Lugano, Switzerland</td>
<td>ICTR2006 Bellinzona, Switzerland Jacques Bernier MD, PO Ravexca 6504 Bellinzona Tel: +41 79 310 43 30 Fax: +41 91 811 8678 E-mail: <a href="mailto:j.bernier@hugue.ch">j.bernier@hugue.ch</a> Web: <a href="http://www.asaue2006.org">www.asaue2006.org</a></td>
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<td>10th Congress of Asian Association of Endocrine Surgeons (AaAES)</td>
<td>Hong Kong</td>
<td>University of Hong Kong Medical Centre, Department of Surgery, Queen Mary Hospital, Pokfulam, Hong Kong Tel: +852 228 18 032 35 4235 Fax: +852 228 18 1186 Email: <a href="mailto:aaaes2006@hk.com">aaaes2006@hk.com</a> Web: <a href="http://www.asaue2006.org">www.asaue2006.org</a></td>
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<td>13-14</td>
<td>Imaging in Oncology, 2nd Conference</td>
<td>London, United Kingdom</td>
<td>SIE, Conference Ltd, James Kennedy The Clove Building Magazine Street SE1LN London Tel: +44 (0) 7872 6186 Fax: +44 (0) 7872 6186 E-mail: j <a href="mailto:kennedy@ymc.co.uk">kennedy@ymc.co.uk</a> Web: <a href="http://www.sie2006.org">www.sie2006.org</a></td>
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<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: +31 346 567 667 Fax: +31 346 446 057 E-mail: <a href="mailto:congress@tmd-online.co.uk">congress@tmd-online.co.uk</a> Web: <a href="http://www.ednoc.org">www.ednoc.org</a></td>
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<td>21-25</td>
<td>4th European Breast Cancer Conference (EBCC)</td>
<td>Nice, France</td>
<td>The Federation of European Cancer Societies (FECS), Brussels, Belgium Tel: +32 2 755 0205 Fax: +32 2 755 0205 E-mail: <a href="mailto:fecc@fecc.org">fecc@fecc.org</a> Web: <a href="http://www.fecc.org/conf/ebcc5">www.fecc.org/conf/ebcc5</a></td>
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<td>23-24</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/W.M.W. van den B Plieuermanlaan 121 1066 CX Amsterdam Tel: +31 20 512 2550 Fax: +31 20 512 2554 Email: <a href="mailto:info@tamed.nl">info@tamed.nl</a> Web: <a href="http://www.stofbaltics.nl/en/7th-skincancer.htm">www.stofbaltics.nl/en/7th-skincancer.htm</a></td>
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<tr>
<td>24-25</td>
<td>Focus on Myeloma and Plasma Cell Disorders</td>
<td>Miami, United States</td>
<td>Imredex 70 Technology Drive 30065 Alpharetta Tel: +1 770 751 7334 Fax: +1 770 751 7334 Email: <a href="mailto:Lcmmons@imredex.com">Lcmmons@imredex.com</a> Web: <a href="http://www.imredex.com/">http://www.imredex.com/</a></td>
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<tr>
<td>24-25</td>
<td>4th Annual Atlanta Lung Cancer Symposium</td>
<td>Atlanta, United States</td>
<td>Imredex 70 Technology Drive 30065 Alpharetta Tel: +1 770 751 7334 Fax: +1 770 751 7334 Email: <a href="mailto:Lcmmons@imredex.com">Lcmmons@imredex.com</a> Web: <a href="http://www.imredex.com">www.imredex.com</a></td>
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<td>25-28</td>
<td>Shanghai – Hong Kong International Liver Cancer Congress 2006</td>
<td>Shanghai, China</td>
<td>International Liver Congress 2006, Poole, Island, Hong Kong Tel: +852 281 8400 Fax: +852 281 84030</td>
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### CALENDAR OF MEETINGS

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<td>27-29</td>
<td>Prevention and Treatment of Tobacco Related Cancers</td>
<td>Moscow, Russia</td>
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<td>30-31</td>
<td>4th International Conference on Teenage and Young</td>
<td>London, UK</td>
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<td>Adult Cancer Medicine</td>
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<td>European Association for Cancer Research 19th Annual</td>
<td>Budapest, Hungary</td>
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<td>American Association for Cancer Research (AACR) 97th</td>
<td>Washington DC, United States</td>
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<td>5-9</td>
<td>The American Society of Breast Surgeons 7th Annual</td>
<td>Baltimore, United States</td>
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<td>8-11</td>
<td>4th International Society of Paediatric Oncology</td>
<td>Shanghai, China</td>
<td>Shanghai Children's Medical Center - Dept of Pediatric Haematology-Oncology</td>
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<td>20-22</td>
<td>5th European Oncology Nursing Society (EONS) Spring</td>
<td>Innsbruck, Austria</td>
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<td>6th Annual New Strategies in the Breast Cancer</td>
<td>Philadelphia, United States</td>
<td>The Center for Biomedical Continuing Education</td>
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<td>1st Scientific Conference of Baltic Society for</td>
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<td>Oncology Nursing Society (ONS) 2006 Congress</td>
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### CALENDAR OF MEETINGS

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<tr>
<td>6-8</td>
<td>Reasons for Hope Scientific conference</td>
<td>Montreal, Canada</td>
<td>Canadian Breast Cancer Research Alliance</td>
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<td>Susan Wall</td>
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<td>6-9</td>
<td>NOPHO/NOBOS 2006 Nordic Conference for Paediatric</td>
<td>Tampere, Finland</td>
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<td>14-17</td>
<td>11TH International Congress on Oral Cancer (KOOC)</td>
<td>Grado, Italy</td>
<td>International Society for Magnetic Resonance in Medicine, Berkeley, USA</td>
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<td>Diagnostic &amp; Interventional Radiology in Clinical</td>
<td>Moscow, Russia</td>
<td>N.N BLOKHIN RUSSIAN CANCER RESEARCH CENTER (INBIRCH) - Office of International</td>
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<td>Dr. Somasundaram SUBRAMANIAM M.D.</td>
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<td>Ethics in Oncology</td>
<td>Bled, Slovenia</td>
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<td>24-26</td>
<td>XIX Annual Meeting of European Musculo-Skeletal</td>
<td>Moscow, Russia</td>
<td>European School of Oncology</td>
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**Note:** All dates and locations are approximate and should be confirmed with the respective organizations.
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<td>28-1 Jul</td>
<td>8th World Congress on Gastrointestinal Cancer</td>
<td>Barcelona, Spain</td>
<td>European Society for Medical Oncology (ESMA) c/o iMedex</td>
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<td>Alpharetta, Georgia, United States</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</td>
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<td>2006 Annual Meeting – American Society of Clinical Oncology</td>
<td>Atlanta, United States</td>
<td>American Society of Clinical Oncology Annie Gallander</td>
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<td>European Association for Cancer Education (EACE) - 19th Annual Scientific Meeting</td>
<td>Enschede, Netherlands</td>
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<td>Familial Cancer - Inside Track Conference</td>
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<td>Daniela Mangiato, Francesca Marangoni Via Beatrice di Este, 37, 20122 Milano</td>
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<td>6th International Conference on the Adjunct Therapy of Malignant Melanoma</td>
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<td>Amsterdam, Netherlands</td>
<td>Eurocongress Management Conference Amsterdam, Netherlands</td>
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<td>9th Cancer Research UK Beaton International Cancer Conference</td>
<td>Glasgow, Scotland</td>
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### CALENDAR OF MEETINGS

<table>
<thead>
<tr>
<th>Date</th>
<th>Name of Meeting</th>
<th>Place</th>
<th>Secretariat</th>
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</thead>
<tbody>
<tr>
<td>October</td>
<td></td>
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</tr>
<tr>
<td>8-11</td>
<td>NCRI Cancer Conference</td>
<td>Birmingham</td>
<td>NCRI Conference Secretariat</td>
</tr>
<tr>
<td></td>
<td></td>
<td>United Kingdom</td>
<td>Ms Sharon Vanloo</td>
</tr>
<tr>
<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>
</tr>
<tr>
<td></td>
<td></td>
<td>Germany</td>
<td>Brussels, Belgium</td>
</tr>
<tr>
<td>17-20</td>
<td>American Head &amp; Neck Society Annual Meeting and Research Workshop on the Biology, Prevention and Treatment of Head and Neck Cancer</td>
<td>Chicago, United States</td>
<td>Joyce Haiper</td>
</tr>
<tr>
<td></td>
<td></td>
<td>11300 West Olympic Boulevard Suite 600</td>
<td>90064 Los Angeles</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Tel: 310 437 0559 ext. 114</td>
<td>Fax: 310 437 0585</td>
</tr>
<tr>
<td>24-26</td>
<td>4th International Conference on Gastroenteroenterological Carcinogenesis</td>
<td>Honolulu, Hawaii</td>
<td>The University of Texas</td>
</tr>
<tr>
<td></td>
<td></td>
<td>11 M.D. Anderson Cancer Centre</td>
<td>Houston, United States</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Tel: +1 713 792 2222</td>
<td>Fax: +1 713 794 1724</td>
</tr>
<tr>
<td>7-9</td>
<td>International Dermoscopy Course and Conference</td>
<td>Warsaw, Poland</td>
<td>Dept. Dermatology CSK MSWAW</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Dr Lesia Rudnicka, MD, PhD</td>
<td>Warsaw</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Tel: +48 22 824 22 90</td>
<td>Fax: +48 22 508 14 92</td>
</tr>
<tr>
<td>13-16</td>
<td>Perspectives in Melanoma X</td>
<td>Amsterdam, Netherlands</td>
<td>Imgedex 70 Technology Drive, 30065 Alpharetta</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Tel: +1 770 751 7332</td>
<td>Fax: +1 770 751 7334</td>
</tr>
<tr>
<td>13-17</td>
<td>International Congress on Hormonal Steroids/Hormones and Cancer</td>
<td>Athens, Greece</td>
<td>Erasmus Conferences Tours &amp; Tracil S.A.</td>
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<tr>
<td></td>
<td></td>
<td>Mrs. Penelope Mitrogianni</td>
<td>Athens</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Tel: +30 210 725 7693</td>
<td>Fax: +30 210 725 7532</td>
</tr>
<tr>
<td>21-23</td>
<td>2006 Gastrointestinal Oncology Conference</td>
<td>Arlington, United States</td>
<td>International Society of Gastrointestinal Oncology (ISGO)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Mr. Robert Ross</td>
<td>200 Broadhollow Rd, 11747 Malville</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Tel: +61 3 90 8390</td>
<td>Fax: +61 3 933 5091</td>
</tr>
<tr>
<td>27-28</td>
<td>European School of Oncology Course (ESO): Skin Melanoma</td>
<td>Istanbul, Turkey</td>
<td>European School of Oncology (ESO)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Milano Italy</td>
<td>Ph. +39 2 8546 451</td>
</tr>
<tr>
<td>27-Oct</td>
<td>14th International Conference on Cancer Nursing</td>
<td>Toronto, Canada</td>
<td>International Society of Nurses in Cancer Care (ISNCC)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Cheshunt, UK</td>
<td>Tel: +44 116 270 3309</td>
</tr>
<tr>
<td>29-Oct</td>
<td>31st European Society for Medical Oncology (EMSO) Congress</td>
<td>Istanbul, Turkey</td>
<td>EMSO Congress</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Venezaprole-Lugano, Switzerland</td>
<td>Tel: +41 91 973 1919</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Tel: +39 2 8546 451</td>
<td>Fax: +39 2 8546 4545</td>
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<tr>
<td></td>
<td></td>
<td>Email: <a href="mailto:conferences@iemso.org">conferences@iemso.org</a></td>
<td>Email: <a href="mailto:conferences@iemso.org">conferences@iemso.org</a></td>
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<td>Web: <a href="http://www.iemso.org">www.iemso.org</a></td>
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<td>EMSO Congress</td>
<td>Venezaprole-Lugano, Switzerland</td>
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<td>Tel: +41 91 973 1919</td>
<td>Fax: +41 91 973 1918</td>
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<td>Email: <a href="mailto:congress@iemso.org">congress@iemso.org</a></td>
<td>Email: <a href="mailto:congress@iemso.org">congress@iemso.org</a></td>
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### CALENDAR OF MEETINGS November

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<thead>
<tr>
<th>Date</th>
<th>Name of Meeting</th>
<th>Place</th>
<th>Secretariat</th>
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</thead>
<tbody>
<tr>
<td>2-4</td>
<td>7th Meeting of the International Society of Gynecological Oncology (SIGOG)</td>
<td>The Hague, Netherlands</td>
<td>SIGOG - International Society of Gynecological Oncology - by T. Romanyk, Gevers Dyenootweg 62, 2586 BN The Hague Tel: +31 70 3318444 Fax: +31 70 3318442 Email: <a href="mailto:titania.comunig@trm-oncology.com">titania.comunig@trm-oncology.com</a> Web: <a href="http://www.cancerworld.org">www.cancerworld.org</a></td>
</tr>
<tr>
<td>5-8</td>
<td>3rd Asian Pacific Organization for Cancer Prevention (APOCP) General Assembly Conference: &quot;Empowering Cancer Prevention in the Asia Pacific&quot;</td>
<td>Bangkok, Thailand</td>
<td>3rd Asian Pacific Organization for Cancer Prevention (APOCP) Neogyu, Japan Tel: +66 1 809 7664 Fax: +66 2 955 9968 Email: <a href="mailto:trama@apo-pc.org">trama@apo-pc.org</a> Web: <a href="http://www.apo-pc.org">www.apo-pc.org</a></td>
</tr>
<tr>
<td>5-9</td>
<td>48th American Society for Therapeutic Radiology and Oncology (ASTRO) Annual Meeting</td>
<td>Philadelphia, United States</td>
<td>American Society for Therapeutic Radiology and Oncology (ASTRO) Fairfax, Virginia, United States Tel: +1 703 227 0170/502 1550 Fax: +1 703 502 7852 Email: <a href="mailto:meetings@astro.org">meetings@astro.org</a> Web: <a href="http://www.astro.org">www.astro.org</a></td>
</tr>
<tr>
<td>5-10</td>
<td>XVII FIGO World Congress of Gynecology and Obstetrics</td>
<td>Kuala Lumpur, Malaysia</td>
<td>AOS Conventions and Events Sdn Bhd Kuala Lumpur, Malaysia Tel: +60 3 4257 1133 Fax: +60 3 4257 1133 Email: <a href="mailto:cancer.office@2004ld.com">cancer.office@2004ld.com</a> Web: wwwFIGO2006.com</td>
</tr>
<tr>
<td>7-10</td>
<td>18th EORTC-NCI-AARC Symposium on Molecular Targets and Cancer Therapeutics</td>
<td>Prague, Czech Republic</td>
<td>Federation of European Cancer Societies (FECS) Brussels, Belgium Tel: +32 2 775 0201 Fax: +32 2 775 0200 Email: <a href="mailto:FECS@2006febs.be">FECS@2006febs.be</a> Web: <a href="http://www.febs.be">www.febs.be</a></td>
</tr>
<tr>
<td>9</td>
<td>American Society for Therapeutic Radiology and Oncology (ASTRO) Annual Meeting</td>
<td>Philadelphia, United States</td>
<td>American Society for Therapeutic Radiology and Oncology (ASTRO) 12500 Fair Lakes Circle Suite 375 22033 Fairfax Tel: +1 703 227 0170/502 1550 Fax: +1 703 502 7852 Email: <a href="mailto:meetings@astro.org">meetings@astro.org</a> Web: <a href="http://www.astro.org">www.astro.org</a></td>
</tr>
<tr>
<td>9-10</td>
<td>Satellite Meeting “Modeling for Detection of Environmental Carcinogens and Modifying Agents in the Asian Pacific”</td>
<td>Chiang Mai, Thailand</td>
<td>Asia Pacific Organization for Cancer Prevention (APOCP) Division of Epidemiology and Prevention, Aichi Cancer Center, Research Institute 1-1 Kanokoden, Chikusa ku, 467-86 Nagoya Tel: +66 1 809 7664 Fax: +66 2 955 9968 Email: <a href="mailto:trama@apo-pc.org">trama@apo-pc.org</a> Web: <a href="http://www.apo-pc.org">www.apo-pc.org</a></td>
</tr>
<tr>
<td>9-11</td>
<td>2006 ONS Nurse Practitioner Conference</td>
<td>Pittsburgh, United States</td>
<td>Oncology Nursing Society (ONS) 125 Enterprise Drive 15275 Pittsburgh, Pennsylvania, USA Tel: +1 866 257 4667 /1 412 859 6100 Fax: +1 877 369 5497 /1 412 859 6162 Email: <a href="mailto:customer.service@ons.org">customer.service@ons.org</a> Web: <a href="http://www.ons.org">www.ons.org</a></td>
</tr>
<tr>
<td>10-12</td>
<td>ONS 2006 Institutes of Learning</td>
<td>Pittsburgh, United States</td>
<td>Oncology Nursing Society (ONS) 125 Enterprise Drive 15275 Pittsburgh, Pennsylvania, USA Tel: +1 866 257 4667 /1 412 859 6100 Fax: +1 877 369 5497 /1 412 859 6162 Email: <a href="mailto:customer.service@ons.org">customer.service@ons.org</a> Web: <a href="http://www.ons.org">www.ons.org</a></td>
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### CALENDAR OF MEETINGS December

<table>
<thead>
<tr>
<th>Date</th>
<th>Name of Meeting</th>
<th>Place</th>
<th>Secretariat</th>
</tr>
</thead>
<tbody>
<tr>
<td>21-22</td>
<td>Cancer World Conference on Improving Cancer Services</td>
<td>Brussels, Belgium</td>
<td>European School of Oncology Mariarta Cassese Viale Beatrice d'Este 37 20122 Milan Tel: +0039 02 8546 4522 Fax: +0039 02 8546 4545 Email: <a href="mailto:mauro.cassese@oncology.org">mauro.cassese@oncology.org</a> Web: <a href="http://www.cancerworld.org">www.cancerworld.org</a></td>
</tr>
<tr>
<td>29-Dec</td>
<td>13th Congress of the European Society of Surgical Oncology (ESSO 2006)</td>
<td>Venice, Italy</td>
<td>ESSO 2006 Conference secretariat – Federation of European Cancer Societies (FECS) Brussels, Belgium Tel: +32 2 775 0205 Fax: +32 2 775 0200 Email: <a href="mailto:ESSO2006@febs.be">ESSO2006@febs.be</a> Web: <a href="http://www.fecs.be">www.fecs.be</a></td>
</tr>
<tr>
<td>10-14</td>
<td>XII International Meeting on Cancer Induced Bone Disease</td>
<td>Texas, United States</td>
<td>The Cancer and Bone Society Conference Secretariat 2025 M Street, NW, Suite 800 20006 Washington DC Tel: +1 202 367 1138 Fax: +1 202 367 2138 Email: <a href="mailto:ash@cancerandbonesociety.org">ash@cancerandbonesociety.org</a> Web: <a href="http://www.cancerandbonesociety.org">www.cancerandbonesociety.org</a></td>
</tr>
<tr>
<td>12</td>
<td>The American Society of Hematology 48th Annual Meeting and Exposition</td>
<td>Florida, United States</td>
<td>American Society of Hematology - ASH 1900 M Street, NW Suite 200 20006- Washington DC Tel: +1 202 857 1118 Fax: +1 202 857 1164 Email: <a href="mailto:ash@hematology.org">ash@hematology.org</a> Web: <a href="http://www.hematology.org/meetings/2005/index">www.hematology.org/meetings/2005/index</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

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.

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

Members
Professor D Currow BMed, MPH, FRACP
Mr G Brien AM, MBA
Hon H Cowan
Mr H Cuthill
Mr C Deverall AM
Professor C Gaston
Dr S Hart FRACS
Professor D Hill AM, PhD
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
President
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