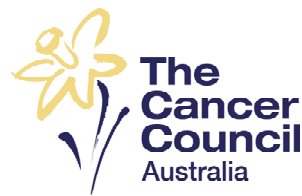


Submission to the Department of Education, Science and Training study of medical education in Australia

**The Cancer Council Australia
The Clinical Oncological Society of Australia**

March 2006

The Cancer Council Australia is Australia's peak non-government national cancer control organisation. Its member bodies are the eight state and territory cancer councils, whose views and priorities it represents on a national level.



The Cancer Council Australia represents the interests of all Australians in reducing the impact of cancer, from prevention, detection and treatment through to supportive care. It is allied with COSA in developing cancer treatment and care policy aimed at achieving optimal patient outcomes.

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



COSA provides high-level advice to the Federal Government on the clinical management of cancer in Australia. It is closely involved with Government in areas such as clinical trials and, along with The Cancer Council Australia, is being consulted on the implementation of the Government's \$189.4 million cancer plan.

Responsibility for the content of this submission is taken by Professor Alan Coates AM, Chief Executive Office, The Cancer Council Australia, and Professor David Currow, President, COSA.

Correspondence to Paul Grogan, c/o paul.grogan@cancer.org.au
Tel (02) 9036 3253

Summary

Evidence shows that any study of medical education in Australia aimed at improving the competency of graduates and the integrity of their career paths must make improved

cancer management a core priority. Cancer is the most feared disease in Australia¹, claims more lives than any other disease group² and is set to increase in incidence by 31% over the next five to 10 years as our population ages.³

The fear of cancer and the distress of a cancer diagnosis, coupled with cancer's high prevalence, shows the need for medical professionals to not only understand cancer prevention, diagnosis and treatment, but to also understand a patient's physical and emotional needs and be able to communicate as a professional with skill and empathy. The trend towards multidisciplinary care⁴ – with individual patients sharing in treatment decisions with a team spanning a number of medical and allied health disciplines – also means that medical practitioners who traditionally had limited involvement in cancer management may be increasingly likely to contribute to the design and delivery of a coordinated cancer care plan.

Improvements in cancer management training can be applied to all clinical disciplines and are particularly relevant to communications skills, medical ethics and the principles of life-long learning – all of which are essential to continual improvement in the healthcare system and among individual professionals.

However, despite the system-wide benefits of cancer training, the unprecedented increase in cancer incidence and prevalence and the Australian Government's four-year, \$189.4 million plan to improve cancer control more broadly, evidence shows the capacity of recently trained medical professionals to manage cancer is in decline.⁵

This submission discusses the demonstrated problems with cancer care training in Australia and makes recommendations, in the context of the terms of reference, outlining ways in which DEST could support necessary improvements in cancer competencies in undergraduates, graduates and in ongoing vocational training. It was prepared under the auspices of The Cancer Council Australia/COSA Oncology Education Committee, which represents every medical school in Australia and clinicians and allied health workers across all disciplines involved in cancer prevention, diagnosis, treatment and care.

Recommendations are summarised on page 3 and outlined in greater detail against the terms of reference from page 4. Much of the content refers to The Cancer Council Australia/COSA's Ideal Oncology Curriculum, which is provided as a separate attachment.

The Cancer Council Australia and the Clinical Oncological Society of Australia welcome this study into medical education in Australia and note with optimism that is another in a series of public consultations conducted by Australian Government agencies aimed at informing much needed reforms to Australia's healthcare system.

¹ Roy Morgan polling, Health concerns in Australia, 2001.

² Australian Bureau of Statistics, Cancer snapshot, 2004

³ Australian Institute of Health and Welfare, Cancer Incidence Projections for Australia 2002-2011, 2005

⁴ National Breast Cancer Centre. National Multidisciplinary Care Demonstration Project. National Profile study of Multidisciplinary Care and Observational Study of Multidisciplinary Care, NSW National Breast Cancer Centre, 2004.

⁵ Barton MB, Tattersall MHN, Butow P, et al. Cancer knowledge and skills of interns in Australia and New Zealand in 2001: comparison with 1990, and between course types; *MJA* Vol 178, 17 March 2003

Recommendations

- That DEST identify the improvement of cancer management competency as a core medical education priority.
- That minimum standards in cancer management competency for graduates be established nationally, along with a mechanism to monitor continual improvement in postgraduate cancer skills and knowledge.
- That DEST scope ways in which The Cancer Council Australia/COSA's Ideal Oncology Curriculum can be adopted throughout Australian medical schools.
- That undergraduates and interns perform minimum clinical cancer management practice and that a cancer exit exam, based on the outline developed by The Cancer Council Australia/COSA, be incorporated into relevant medical curricula.
- That DEST explore options to ensure students in rural locations have adequate access to clinical experience in all elements of multidisciplinary cancer care, including modalities such as radiation therapy for which there is limited local infrastructure.
- That DEST note the decline in interns' cancer management competency observed in recent studies and identify reversing this trend as a priority for graduates and in prevocational and postgraduate training.
- That DEST support the introduction of a national system of credentialing for cancer professionals, to help ensure that postgraduate training in major clinical disciplines translates to ongoing adherence to best practice.
- That DEST explore opportunities to translate the increase in Australian Government support for independent cancer clinical trials into improvements in medical education.
- That DEST identify improved communication skills as an increasingly important competency for students involved in all areas of cancer management.
- That an increased understanding of the role of complementary medicines and patient interest in them be incorporated into medical curricula where appropriate.
- That the increased role general practitioners play in cancer prevention and early detection, particularly in the diagnosis and treatment of skin cancer, be factored into prevocational and postgraduate training.
- That training modules in the prevention and treatment of chronic disease be developed nationally, according to current epidemiological evidence and projections.
- That the role of practising clinicians as on-the-job trainers of medical undergraduates and interns be formally recognised and supported through national train-the-trainer and incentives schemes.

Addressing the terms of reference...

1. Analysis of:

- the competencies (knowledge, skills and professional, including cultural, attitudes) required at graduation for performance as an intern in Australian hospitals and attainment of further attributes during the internship year; and
- the actual 'readiness' of graduates for internship.

Cancer competencies required at graduation, internship

Cancer describes a notifiable and potentially fatal disease group that directly affects between one in three and one in four Australians before the age of 75. It therefore has a significant impact on hospital services.

Cancer's high prevalence (estimated at 267,000 by the Australian Bureau of Statistics in 2004) and increasing incidence⁶ demonstrate a high need for minimum national standards in medical competency. The volume of cancer patients should also mean that both undergraduates and hospital interns have adequate access to appropriate clinical practice-based training in managing the many potentially fatal forms of the disease.

However, there are in fact no minimum national standards in place. Moreover, evidence shows that not only is cancer competency in graduates below the level that cancer specialists recommend is adequate for optimal care and efficiency, cancer knowledge and skills in relative terms are deteriorating in Australia.

A comparative study published in the *Medical Journal of Australia* in 2003 indicated that recent medical graduates had less exposure to cancer patients than those who had been trained 11 years earlier.⁷ This is of serious concern, as previous studies had in any case indicated that training standards in cancer management were not high.^{8 9}

These studies show, for example, that many medical students graduate without having examined people with the most common forms of cancer or knowing the ages of greatest risk of developing the most common cancers. Graduates have also been unable to confirm whether five-year survival rates are higher or lower than 50% for some of the most common cancers in Australia.

The introduction of four-year graduate medical programs at four Australian medical schools (Flinders University, the University of Queensland, the University of Sydney and the University of Melbourne) has ostensibly enhanced cancer curricula.

⁶ Cancer in Australia 2001, Australian Institute of Health and Welfare, 2004

⁷ Barton MB, Tattersall MHN, Butow P, et al. Cancer knowledge and skills of interns in Australia and New Zealand in 2001: comparison with 1990, and between course types; *MJA* Vol 178, 17 March 2003

⁸ Smith WT, Tattersall MHN, Irwig LM, Langlands AO. Undergraduate education about cancer. *Eur J Cancer* 1991; 27: 1448-1453

⁹ Tattersall MH, Langlands AO, Simpson JS, Forbes JF. Undergraduate education about cancer: a survey in Australian medical schools. *Eur J Cancer Clin Oncol* 1988; 24: 467-471

However, studies show that these enhancements have not translated to improvements in competency, with medical graduates still disconcertingly under-skilled at a time when cancer is imposing a significantly increasing burden on the health system.^{10 11}

This problem is of particular concern for undergraduates, who currently have access to five- or six-year courses in some Australian medical schools, although there are varying degrees of curriculum reform. Any trend towards a reduction in course scope or content presents a risk of further deterioration in general cancer competency.

Core academic competencies

The Cancer Council Australia/COSA Oncology Education Committee has developed an *Ideal Oncology Curriculum*¹² aimed at helping to ensure minimum standards of knowledge and skill in cancer management are attained at graduation from medical school. (The curriculum is provided in full as a supporting document to this submission.) It covers seven key areas of cancer management, from primary prevention through to palliation and family support:

- Public health;
- Cancer biology;
- Patient management;
- Diagnosis;
- Treatment;
- Communications skills; and
- Ethics.

Despite the need for such a curriculum to help raise the demonstrably low standard of cancer competency, and its endorsement by the International Union Against Cancer (UICC), the *Ideal Oncology Curriculum* is used by only a minority of Australian medical schools. This is due largely to fragmentation of training programs and the absence of a compliance mechanism such as a national credentialing body.

Australia also lacks a standard approach to measuring educational outcomes through, for example, a national exit exam, to ensure that core competencies such as those defined by the *Ideal Oncology Curriculum* are acquired at the time of graduation.¹³ The *Ideal Oncology Curriculum* includes a proposed framework for developing a national exit exam to measure cancer management competency.

Core clinical/experiential competencies

The absence of a national administrative body to oversee general and specialist medical training and credentialing means that students in Australia are educated and receive post-graduate training according to varying models with mixed levels of didactic, self-directed, academic and hands-on experiences in a range of settings.

¹⁰ Barton MB, Tattersall MHN, Butow P, et al. Cancer knowledge and skills of interns in Australia and New Zealand in 2001: comparison with 1990, and between course types; *MJA* Vol 178, 17 March 2003

¹¹ Australian Institute of Health and Welfare, Cancer Incidence Projections for Australia 2002-2011, 2005

¹² Oncology Education Committee, *Ideal Oncology Curriculum for Medical Schools*, The Cancer Council Australia, 1999.

¹³ Koczwara B, Tattersall MH, Barton MB, Coventry BJ, Dewar JM, Millar JL, Olver IN, Schwarz MA, Starmer DL, Turner DR, Stockler MR. Achieving equal standards in medical student education: is a national exit examination the answer? *Med J Aust.* 2005 Mar 7;182(5):228-30)

The result is that not all students are exposed to essential practical experiences, recommended either before graduation or in the lead-up to internship for new graduates.

Given the significance of cancer as a disease group to all medical disciplines, it is recommended that undergraduates, as part of their clinical training, and graduates, through their internship, build their clinical experience through five mandatory core activities (depending on their level of academic training):

- Talking with and examining people affected by cancer at all stages;
- Talking with and examining people affected by all common cancers;
- Observing all components of cancer multidisciplinary care;
- Observing shared decision-making between patients and their doctors;
- Talking with and examining people who are dying of cancer.

Some of these core experiences are not easily accessible to students who undertake the majority of their clinical training in rural settings, where access to comprehensive cancer care facilities is limited. Such students may never be able to observe important aspects of multidisciplinary cancer care, such as radiotherapy.

In the context of the terms of reference, it is important to note that large Australian hospitals provide a useful setting for interns to continue to develop cancer management competencies through structured involvement in the core activities outlines above.

Additionally, the adoption nationally of clinical practice guidelines (such as those developed by the Australian Cancer Network, available at www.cancer.org.au/ACN) as standard practice across all disciplines and in all relevant settings would help to foster a culture of best practice and continual improvement in cancer management in Australia.

Recommendations

- That DEST identify the improvement of cancer management competency as a core medical education priority.
- That minimum standards in cancer management competency for graduates be established nationally, along with a mechanism to monitor continual improvement in postgraduates' cancer skills and knowledge.
- That DEST scope ways in which The Cancer Council Australia/COSA's Ideal Oncology Curriculum can be adopted throughout Australian medical schools.
- That undergraduates and interns perform a minimum amount of clinical-based cancer management practice and that a cancer management exit exam, based on the outline developed by The Cancer Council Australia/COSA, be incorporated into relevant medical curricula.
- That DEST explore options to ensure students in rural locations have adequate access to clinical experience in elements of multidisciplinary cancer care, such as radiation therapy, for which there is limited local infrastructure.

2. Analysis of:

- the competencies (knowledge, skills and professional, including cultural, attitudes) required at graduation, and subsequently acquired in prevocational training, to provide a foundation for postgraduate training in the major clinical disciplines and in medical research, and
- the ‘readiness’ of graduates for postgraduate training.

Postgraduate cancer knowledge and skills

Sample of existing intern competencies

The 2003 comparative study of intern skills and knowledge in cancer management asked respondents to self-assess their competencies in a number of wider key areas, such as advice on quitting smoking; preparing patients for hazardous procedure; discussing death with a dying patient; breaking bad news; recognising a melanoma; and performing a cervical smear.¹⁴

On a five-point scale ranging from “nil” to “very high”, the majority of respondents who had completed a graduate medical program rated their competency as “medium”.

Across all key areas, on average only 3.5% of respondents rated their competency as “very high”. Excluding advice on quitting smoking, on average only 20% of respondents rated their competency as “high”.

While this result is poor and reflects the systemic deficiencies in cancer education, percentages were even lower for interns who had not completed a graduate medical program but who had received their training through an undergraduate course.

Overall, these results again demonstrate that current training and post-graduate placement arrangements are not adequately skilling new medical professionals in the management of the disease group that causes the most deaths in Australia.

Cancer clinical trials

Clinical trials in cancer treatment in Australian teaching hospitals can facilitate improvements to undergraduate and postgraduate training in areas such as knowledge of new cancer treatment strategies; clinical practice; use of guidelines and protocols; documentation; and integration of standard and experimental treatment methods.

The Australian Government’s \$21.7 million commitment over four years to support independent cancer clinical trials¹⁵ provides opportunities to incorporate clinical trials into both undergraduate and postgraduate curricula, with significant potential benefits to patients, who will have wider access to the latest treatment innovations, and to taxpayers, who will not have to subsidise expensive treatments shown to be ineffective.

¹⁴ Barton MB, Tattersall MHN, Butow P, et al. Cancer knowledge and skills of interns in Australia and New Zealand in 2001: comparison with 1990, and between course types; *MJA* Vol 178, 17 March 2003

¹⁵ Department of Health and Ageing, Portfolio Budget Statements, May 2005

Cultural, attitudinal issues

Information gathered by community-based organisations shows a significant number of cancer patients find the distress of diagnosis and treatment is exacerbated by their doctors' poor communications skills and lack of understanding of psychosocial issues.¹⁶

The significance of non-clinical aspects of cancer care will grow as cancer prevalence and patient expectations continue to increase. This is another example of the value of a common exit exam, such as that outlined as a guide in the *Ideal Oncology Curriculum*, which contains four modules on communications skills.

Continual improvement in the cancer competencies of medical professionals throughout their careers would also be supported through a national accreditation/credentialing framework. Best practice in communications skills would also be applied more widely if there were a mechanism to implement guidelines such as the *Clinical Practice Guidelines for the Psychosocial Care of Adults with Cancer*.¹⁷

Prevention

Up to half of the cancers diagnosed in Australia could be prevented through prevention and early detection methods already understood and available. Moreover, much of the burden of chronic disease experienced in Australia could be avoided or significantly delayed through appropriate prevention measures.¹⁸ A shift towards improved prevention of chronic disease, driven by healthcare professionals throughout the healthcare system, would lead to significant gains in terms of quality of life and cost-savings.

There is, therefore, a strong case for a culture of preventive medicine and a greater understanding of epidemiology and population health to be built into medical curricula in Australia.

Complementary and alternative therapies

Growing use of the internet as a source of (often unauthorised and unproven) information about cancer treatment, coupled with a growing alternative medicines industry and potential customer base, mean that medical professionals need to be increasingly aware of the wide range of choices for patients and their attitudes to treatment.

A study conducted in three Australian oncology clinics found that 22% of patients reported using alternative therapies. Despite the potential of these therapies to be harmful if used instead of, or in combination with, orthodox treatments, 40% of patients did not discuss their interest in such treatments with their doctor, as many feared it would be dismissed if not ridiculed.¹⁹

This exemplifies the need for medical professionals to ensure the development of their communication skills incorporates a capacity to discuss the full treatment spectrum with

¹⁶ Optimising Cancer Care, COSA, The Cancer Council Australia, National Cancer Control Initiative, 2003

¹⁷ Published by the National Breast Cancer Centre, NHMRC and National Cancer Control Initiative, 2003

¹⁸ The Australian Burden of Disease Study: Measuring the Loss of Health from Diseases, Injuries and Risk Factors: Colin D Mathers, E Theo Vos, Chris E Stevenson and Stephen J Begg, MJA 2000; 172: 592-596

¹⁹ Begbie SD, Kerestes ZL, Bell DR, Patterns on alternative medicine use by cancer patients, MJA, 1996; 165:545-8

their patients, to help ensure they can guide patients away from using dangerous or counterproductive treatments.

As the evidence base slowly grows in favour of the effectiveness of some *complementary* therapies – separate from alternative therapies and by definition potentially used as an adjunct to clinically proven modalities – it is important for medical professionals to expand their knowledge and appreciation of non-clinical methods such as relaxation, guided imagery and meditation.

The *Clinical Practice Guidelines for the Psychosocial Care of Adults with Cancer* contain an evidence-based guide to clear, two-way communication between clinician and patient in this area.

As an increasing number of conventional treatment centres recognise the value of safe and potentially helpful complementary therapies, a need may emerge to have the study of such treatments brought into the mainstream, as they have been in 75 medical schools in the United States since 1997.²⁰

General practice

There is a clear trend towards general practitioners taking an unprecedented role in the prevention and management of cancer, particularly as incidence and prevalence levels grow in synch with population ageing.

A commitment to Medicare support for the prevention of chronic disease through primary care²¹ and the Government's Lifestyle Prescriptions program will require GPs to have a strong and up-to-date understanding of cancer epidemiology, risk factors and referral pathways.

Expanded GP responsibilities will build on the significant role already played by GPs in the management of skin cancer, which is diagnosed in more than 370,000 Australians each year, the vast majority in general practice.²² Yet despite the high caseload of skin cancers, a survey by The Cancer Council NSW found that the majority of GPs required additional training to improve their confidence in the optimal identification and treatment of skin cancer. This is consistent with the 2003 MJA study, which found that competence among interns in diagnosing melanoma had declined between 1990 and 2001.²³

Recommendations:

- That DEST note the decline in interns' cancer management competency observed in recent studies and identify reversing this trend as a priority for graduates and in prevocational and postgraduate training.
- That DEST support the introduction of a national system of credentialing for cancer professionals, to help ensure that postgraduate training in major clinical disciplines translates to ongoing adherence to best practice.

²⁰ Wetzel M, Eisenberg DM, Kaptchuck T, Courses involving complementary and alternative medicine at US medical schools, *Journal of American Medicine* 280, a784-787, 2003

²¹ Council of Australian Governments communiqué, Better health for all Australians, 13 February 2006

²² Australian Institute of Health and Welfare, Burden of disease in Australia, 1998.

²³ Barton MB, Tattersall MHN, Butow P, et al. Cancer knowledge and skills of interns in Australia and New Zealand in 2001: comparison with 1990, and between course types; *MJA* Vol 178, 17 March 2003

- That DEST explore opportunities to translate the increase in Australian Government support for independent cancer clinical trials into improvements in medical education.
- That DEST identify improved communication skills as an increasingly important competency for students involved in all areas of cancer management.
- That training modules in the prevention and treatment of chronic disease be developed nationally, according to current epidemiological evidence and projections.
- That an increased understanding of the role of complementary medicines and patient interest in them be incorporated into curricula where appropriate.
- That the increased role general practitioners are set to play in cancer prevention and early detection, particularly in the diagnosis and treatment of skin cancer, be factored into prevocational and postgraduate training.

3. Analysis of models of undergraduate clinical education that appropriately address the need for greater effectiveness/efficiency both at the intern level and as preparation for postgraduate training.

General observations

Fragmentation of training and placement arrangements – across tiers of government and the education and health bureaucracies within the same government – are a systemic barrier to the development of medical education programs that equate to optimal service delivery for healthcare consumers and clear career paths for graduates in all areas of the health workforce nationally.

Inherent in the problem is the fact that there are too many education models and no centralised administration to ensure that best practice is standardised as policy and that graduates are registered, continually supported and assessed through national registration and credentialing systems. Training modules should be developed nationally on a needs basis, according to epidemiological evidence and projections around current and future healthcare requirements.

It is important to note that, regardless of any innovations in undergraduate training, retention of some valuable graduates and undergraduates will be difficult because of the disincentives of firsthand experience, either as an intern or a trainee, of the health system: a workforce culture of high stress, over-stretched facilities, inadequate pay, long hours and bureaucratisation.

Undergraduate clinical training

In terms of cancer management, the quality of undergraduate clinical training is currently compromised by a lack of incentives for experienced clinicians to take an active mentoring role.

There is no formal recognition of specialist clinicians in the provision of on-the-job clinical training, nor are there quality controls, train-the-trainer programs or financial incentives to add practical training to the demands of a heavy patient caseload.

Some individual hospitals have taken the initiative to develop in-house procedures to facilitate on-the-job training and development, but these are not supported by any processes built into the medical education system. (Some jurisdictions actively oppose the dedication of working time for continued professional development.)

Recommendations

- That training modules in the prevention and treatment of chronic disease be developed nationally, according to epidemiological evidence and projections around current and future healthcare requirements.
- That the role of practising clinicians as on-the-job trainers of medical undergraduates and interns be formally recognised and supported through a national train-the-trainer and incentives scheme.