

Workforce shortages in medical oncology: a looming threat to quality cancer care

Supply must meet demand to maintain our high standards of cancer care

Recent years have witnessed significant progress in cancer treatment, with improved outcomes,¹ treatment options, emergence of survivorship care, and acceptance of multidisciplinary care as the optimal care delivery method.² All Australian states have cancer plans, and considerable funding has been committed to cancer control by state and federal governments. While cancer outcomes in Australia are excellent by world standards, cancer care providers and consumers are concerned about the ability of the oncology workforce to meet the growing demand, and the effect that shortages may have on the quality of care. The number of new cases of cancer continues to increase by about 3% per year because of increased population, improved longevity and increased detection rates. Over a decade, the increase amounts to nearly 40%.¹ The expansion of cancer services has barely kept pace with the increased number of cases, and the number of training positions, while highly in demand, is not sufficient to address the need.³

This concern is illustrated by a recent major federal government investment into rural cancer centres of \$560 million.⁴ The funding is subject to a partnership agreement with the states to ensure an adequate workforce (as well as other recurring costs) to deliver care in rural centres. With 20 facilities to be created or expanded with federal funding, and others developed with state support (10 additional facilities in South Australia alone), there can be only two potential strategies for workforce supply. One is to create new positions (unlikely to be successful, given the national and international shortages in the cancer workforce and no specific commitment of additional funding for that purpose); the other is to redistribute the existing workforce and optimise work practices to manage additional demands.

It seems prudent to consider these possibilities in some depth, and we have done so using information from the recent workforce survey of the Medical Oncology Group of Australia (MOGA).⁵ Medical oncology is a key element of multidisciplinary cancer care, and is thus fundamental to services in the proposed rural expansion. It is estimated that about half of cancers require treatment with at least one course of systemic therapy.⁶ Medical oncologists (MOs) frequently supervise chemotherapy, targeted therapies, treatment with biological agents and hormonal therapy. They may be responsible for care coordination and provide supportive, palliative and follow-up care. The MOGA survey demonstrates that currently in Australia there is a significant shortage and uneven distribution of MOs that is unlikely to be addressed by the increase in training positions. Of even more concern is that the

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Research p 58

estimated chemotherapy utilisation rate (the proportion of new patients with cancer who receive chemotherapy at least once during their illness) appears to be less than half the recommended rate.⁵ There is no indication that MOs turn patients away (although the subject was not specifically covered in the survey), and it is likely that the low chemotherapy utilisation rate may reflect limited access to MOs or limited awareness about the value of medical oncological treatment among referring doctors. Increasing engagement of MOs with other doctors and development of rural centres may help solve these problems. But the concern remains that with the existing medical oncology workforce, we simply do not have the capacity to increase the chemotherapy utilisation rate.

The federal government investment in infrastructure for rural cancer centres is one example of the challenges for the cancer workforce in general. The current workforce of 234 full-time equivalent (FTE) MOs will need to absorb the work demands of the additional 20 rural facilities. Even allowing an average of 0.5 FTE MOs per site, this would require an increase of 10 FTE MOs, which seems hard to achieve, given that 29 FTE MO positions are currently unfilled. Some patients who would be seen in the rural centres are currently seen in metropolitan facilities, so there will be some shift in workload, but there will also be a need to allow time to travel, especially in states where the population density is such that there is just not enough work for a resident MO. There will also be a cost associated with taking an MO out of the existing facility to provide care elsewhere. We do not claim that these figures are precise, but they illustrate the calculations that may be required and are yet to be presented. We hope that raising these issues may serve as a call to action, because without thoughtful strategies to increase the oncology workforce, the investment of \$560 million may not reach its full potential.

So what can be done? We argue that quite a lot can be achieved. The medical oncology profession is committed to promoting best practice and monitoring workload and current and future demand to deliver care with the highest quality and safety, as close as practicable to patients' homes. MOs are open to innovation and welcome nurse practitioners, physician assistants and other innovative health care delivery strategies, including shared-care models, role redesigns and "e-health" solutions that can improve efficiency and access to care. Every effort should be made to reduce inefficient and unnecessary care; for example, use of chemotherapy when palliative care may be more appropriate, and MO management of patients who may be more appropriately followed up in general practices. The solutions need to be feasible, and consistent across the public and private (which currently has less access to innovative models of care delivery) sectors.

The federal government has established two agencies with significant roles to play: Cancer Australia and Health Workforce Australia. These agencies and the profession must jointly address the challenges ahead in order to solve problems across jurisdictions — across state and federal boundaries, rural and metropolitan areas, the public and private sectors, government and training colleges and across professions. Just as we recognise that clinical care can best be delivered in a multidisciplinary setting, we need to start *planning* cancer care in the multidisciplinary setting. We know that work shortages described in medical oncology are similar to those in other disciplines, and addressing shortages in one area in isolation will not solve the problem; solutions must encompass the entire spectrum of cancer care professionals. Australia is unique internationally in having a strong professional multidisciplinary cancer organisation (the Clinical Oncological Society of Australia) that can engage cancer providers across disciplines. Now we need the jurisdictions to work with Cancer Australia and Health Workforce Australia in conjunction with the professional groups and consumers.

We have seen the benefits of this approach already, in radiation oncology. The Radiation Oncology Reform Implementation Committee, under the auspices of the Australian Health Ministers' Advisory Council, has driven significant improvements in delivery and staffing in Australia, and was another driving force for the regional cancer centre initiative. We need to apply similar processes to delivery of systemic anticancer therapies.

We need to better define the problem. The MOGA survey is a good start, but points out one serious limitation: without national investment into robust data collection systems, we will not be able to plan effectively or monitor outcomes of interventions. The MOGA survey calls for a national cancer workforce plan that can provide projections and recommendations for the future. It takes



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13 years to train an MO from the time of entry into medical school. To plan for the 40% growth in cancer incidence over the next 10 years, we need to invest in new training positions today, focusing not only on numbers of places but also on creating systems allowing people to work more efficiently and flexibly, so we not only attract them to the profession but retain them at peak performance.

We need to agree as a society what standards of care we aspire to and what standards we can realistically deliver. How many patients can we reasonably expect an MO to see without risking burnout or dangerous errors occurring? We need to engage consumers in some difficult conversations on how we can provide the best care, not in the ideal setting, but in the reality of our limited (human) resources.

Australia has one of the highest standards of cancer care in the world, but we can do even better with appropriate staffing, quality and distribution of our cancer care workforce. It is time to come together to start addressing the looming shortages before it is too late.

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