



A Junior Doctor's Perspective on Oncology and Palliative Medicine Education in Western Australia: Comparison Between Graduation and Completion of Internship

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Abstract

Cancer is a leading cause of death in Australia and is also the leading cause of disease burden as survivorship continues to improve. Given the prevalence of oncology patients in the community, it is likely to be a condition encountered by every junior doctor. Despite this oncology and in conjunction with that, palliative care has not been a core component of medical curriculum until recently. This means that the junior doctor experience is often complicated by lack of knowledge, poor understanding of the disease process, treatment options and complications and therefore makes managing these patients complicated and often an unnecessarily stressful process. This reflective article explores current issues in cancer education, a reflection and comparison between pre- and post-internship experience and offers some potential solutions to these issues.

Keywords Cancer · Education · Palliative care

Background

Cancer is a leading cause of death in Australia [2] and is also the leading cause of disease burden [14] as survivorship continues to improve. Cancer accounts for 10% of hospital admissions, which means regardless of area of specialisation, it is likely to be a condition encountered by every junior doctor [2]. In comparison, palliative care is responsible for only 0.6% of hospital admissions, 58% of which are related to a cancer diagnosis [2], despite this oncology and palliative care teaching has not been a core component of medical curriculum until recently. The University of Western Australia only introduced a clinical placement in oncology in 2000 and in palliative care in 2001 [11]. However, due to my participation in a rural program, the medical oncology rotation was not available to me [13].

Issues

The impact of cancer on the Australian population is significant; despite this, the literature around cancer education and preparing medical students for managing patients with a variety of cancers and their complications identifies a number of areas of concern. For students, these concerns include the uncoordinated way of teaching, which leads to duplications and contradictions [12]. It has also been reported that medical graduates experience a lack of confidence in performing physical examinations on cancer patients [4], despite this being identified as a necessary skill [6]. There is also the challenge of breaking bad news, which cannot be done in the classroom, but is important when working in clinical practice [10]. Overall, these lead to the graduation of poorly equipped junior doctors who need to manage these patients, who are often unwell and have complex psychosocial as well as physical needs. For the wider society, there should be concerns about the poor knowledge of cancer epidemiology and the projected shortage of oncologists in Australia, especially in rural settings [3, 5, 10].

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Barriers

From the literature, a number of gaps in oncology teaching have been explored. Barriers to effective

oncology and palliative care education include ad hoc teaching [12], increased student numbers and limited curricula time dedicated to teaching in these areas [11]. Furthermore, increasing community-based and private medical care, as well as an increasing emphasis on ambulatory care and decreased length of hospital stay, is negatively impacting students' exposure to cancer [7, 13]. These issues were reflected in my own experience, with contradiction, overlap and overall confusion. The basic principles were not a core part of my teaching, with emphasis on specifics and assessment plans that did not encourage broad knowledge. In terms of local studies, it has been found that despite increasing attendance at oncology clinics, contact with cancer patients has actually declined [13]. However, there has been a positive change with the introduction of a compulsory cancer and palliative care curriculum, which has improved the ability of Western Australian graduates to manage end of life symptoms in comparison to other Australian graduates [11].

As part of my medical school experience, the opportunity to spend a year in a rural community became available, as part of a competitive program to improve doctors' understanding and ability to care for rural patients, with the goal of addressing workforce shortages in these underserved areas [1]. Unfortunately, this opportunity came with the cost of reduced oncology and palliative care exposure due to limited resources in the rural setting [13]. In fact, some of the rural sites have no oncology services, limited and typically community-based palliative care services, and outside of the metropolitan area, there is only one centre that offers radiotherapy treatment. Most of our teaching came in the form of video conferencing and group tutorials where we discussed issues that we had found, with no to minimal structured teaching on specific oncological issues such as emergency presentations or treatment principles. It is unfortunate that a program designed to improve the movement of doctors into rural areas limits oncology teaching, as in many of these cases the general practitioners have to manage a larger spectrum of disease and end of life care as patients become reluctant to seek tertiary level hospital care towards the end of life [3]. Hopefully, the use of technology will continue to address this issue in the future, in the form of telehealth to allow remote follow-up for patients. This is especially concerning as Aboriginal patients, who make up a larger proportion of rural patients, are more likely to develop cancer and have higher cancer-related mortality compared to age-standardised non-Aboriginal Australians [2]. The benefits of rural exposure in improving cultural competency and communication skills can have a massive influence on future interactions with this group of patients, especially as many of them have to relocate for oncology care, adding significant social stress to an already very difficult situation.

Reflection

In comparison to the average Western Australian graduate, I scored poorly but above average or on par with the average medical graduate when completing the Australian Cancer Society (ACS) Cancer Education Survey [4]. This survey assessed the level of core knowledge as well as clinical experience of medical graduates based on the Cancer Council Australia's Ideal Oncology Curriculum (IOC) [6]. My scores likely reflect my own determination to learn about oncology and finding opportunities when available. There were plenty of opportunities for self-directed learning, including elective units, spending extra time on the chemotherapy unit and attending extra multidisciplinary meetings which were usually done via telehealth with larger centres. The best opportunity I had was to attend a breast clinic, where I was able to watch women have biopsies taken post-abnormal mammograms and then attend for the follow-up appointment. It was one of the only chances during my medical schooling to watch a clinician break bad news.

After a year of working in the public health system, rotating through a number of subspecialties, my score on the ACS survey has improved and my level of confidence has grown, despite the lack of opportunity to work in oncology, haematology or palliative care specialities at the intern level. Unfortunately, at the time, I felt underprepared to handle many of circumstances that I faced including certifying my first death and managing patients post-cancer treatment including surgical and chemotherapy treatments. During my emergency rotation as an intern, I remember feeling particularly overwhelmed when caring for a patient with abdominal pain in the context of an extensive surgical history related to her ovarian cancer. I recall the challenge in eliciting a history, being unsure what questions were relevant, what the chemotherapy agents were or how they worked, what the differential diagnoses included in terms of post-operative complications or cancer progression-related presentations. In addition to my difficult basic history and exam taking, having never seen an ovarian cancer patient, I struggled to establish a management plan, with concerns about prescribing strong opioid analgesics and attempting to get surgical input. I was fortunate in this case because I remembered the events of a surgical morbidity and mortality meeting where they discussed ischaemic gut. I really pushed for appropriate imaging and was lucky my patient was managed in a time-efficient manner to get to theatre for appropriate care. It is disappointing to think that a junior doctor is expected to manage these complex patients with little understanding of cancer biology or disease management. I was lucky, but I can imagine the scenario of a back pain presentation where a potential spinal cord compression is missed by a doctor who does not include this on their differential list in a patient with a cancer history or the confused patient who does not get their malignancy-related

hypercalcaemia appropriately managed. Furthermore, when more than 50% of palliative care admissions result in patient's dying in hospital, management of the dying patient and improving communication with these patient's families is a vital skill to develop in junior doctors [2]. In a number of cases as the junior doctor, with the most regular contact with the family, I may have been the best person to discuss the situation with the family, with the necessary support from seniors. However, this did not occur due to a lack of confidence on my part and because hospital structures do not support this disruption of the normal hierarchy. This process was also hindered by my lack of knowledge, inability to provide information about prognosis, expectations around the dying process or the role of chemotherapy in terms of palliative versus curative intent, especially, as it was often unclear how much the patients understood about their disease process. This aspect of clinical management, especially in the context of end of life care, is often considered a "soft skill"; however, it is a vital aspect of patient management and improves both the experience for families and the practitioner [8].

Potential Solutions

The concern for the medical and wider community is that medical school does not sufficiently prepare junior doctors to adequately treat the patient's that we encounter. There have been a number of strategies proposed and studied to potentially address this issue with regard to oncology patients. It has been suggested that less than 10% of curriculum and assessment in Australian medical schools address an oncology curriculum [10], which may mean that establishing a baseline knowledge level through the use of an oncologic-specific exit exam could improve medical students' knowledge and preparedness for practice [9]. These include arranging for the long-term follow-up of a patient [13], using student societies to augment learning [12], or practicing the non-technical skills related to palliative medicine, such as breaking bad news with patients who are cancer survivors [7]. Another potential opportunity for rural students is to organise for them to sit in with patients who are receiving care through a tertiary centre but have follow-up performed via telehealth or allow them to spend time with the cancer nurses who help coordinate care for rural patients. However, none of these strategies have been implemented across Australian universities and even more concerning is that despite the development of the IOC, which establishes the principles and depth of knowledge that could be expected of a medical graduate, there has not been an uptake of this into standard medical curricula. Given the challenges faced in preparing medical graduates for managing these complicated and often unwell patients, it is no surprise that there is a shortage of oncologists in Australia. Worse still, this shortage is predicted to worsen and has implications on

the learning opportunities for upcoming medical graduates [5, 12, 15].

Conclusion

As a medical student who was passionate about palliative medicine and oncology during the course of my medical training, I have been aware of the patients that I have encountered across my studies and into my first year of work. Despite never having been assigned to an oncology or palliative medicine rotation through work, I have managed patients with a number of different malignant and terminal processes. The stress that is associated with this, when unprepared, made the experience challenging and can deter junior doctors from considering these pathways for specialisation. In particular, certifying deaths, managing patients with complications associated with chemotherapy (such as febrile neutropenia) and discussing patient prognosis and ceilings of care with family proved to be experiences that I was not prepared for. For me, the opportunities to improve medical student exposure seem numerous. Utilising the community-based resources involved in cancer screening, general practice opportunities (particularly around women's health practice) and improving the overall coordination of teaching, without necessarily adding content, would go a long way to establish and cement a knowledge base. Further, such a knowledge base would serve junior doctors well and perhaps, in the long term, improve the ability of our medical workforce to serve the community for which we work.

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