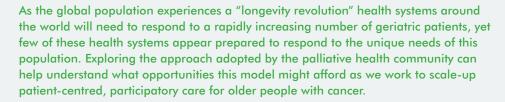
Cancer and the ageing population: Lessons from palliative care

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lobally, there is a "longevity revolution" taking place in which the world's population is ageing rapidly. There are currently over 703 million people worldwide above the age of 65 (1) years equating to 9.1% of the global population, and estimates suggest that the proportion of the population over the age of 65 is expected to rise to 15.9% (1.5 billion) by 2050 (1). The fastest growth is likely to be seen across the least developed countries, where the population of over 65s is projected to grow from 37 million in 2019 to 120 million in 2050 (1).

These demographic changes will have serious implications for health systems, particularly in responding to the rising burden of cancer and other noncommunicable diseases. Cancer is more prevalent in older adults, with cases amongst the over 65s accounting for over 50% of the global cancer burden (2), and are often detected at a more advanced stage. When combined with the unique challenges associated with the management of cancer in older people, this growth necessitates focused attention on older populations within cancer control policy and planning. However, current evidence suggests there are limited programmes and services in place to respond the needs of this population (3).

Addressing cancer and ageing will require engagement and support from across the cancer community to improve the comprehensiveness of care for cancer in older people. A comprehensive discussion of global priorities for geriatric oncology has recently been put forward by the International Society of Geriatric Oncology (SIOG) and outlines priorities for the global advancement of cancer care in older adults (4). In this article, we explore what the cancer community could

learn from approaches taken in palliative care that could inform efforts to increase access to multidisciplinary, patient-centred oncogeriatric care. We wish to emphasize that this is not a suggestion that older patients with cancer should only be offered palliative care services. Rather, we have sought to better understand what we can learn from the palliative care model as an essential component of comprehensive cancer care, and one which also emphasizes the importance of addressing the needs of a key vulnerable group.

Challenges facing geriatric oncology

Geriatric oncology is a comparatively recent branch of oncology that emphasizes the needs of older people. Its goal is to improve outcomes for older patients with cancer, recognizing and responding to the variable health status of these individuals. It seeks to establish patient-centred responses, using tools like comprehensive geriatric assessments (CGAs) to shape and prioritize multidisciplinary treatment.

A large part of the research to date has assessed the extent to which health systems are responding to the needs of older patients with cancer, with a particular focus on maintaining their quality of life and functional capacities. The literature documents a number of successes, including the development of patient-centred treatment tools, guidelines to improve the management of comorbidities, creation of multidisciplinary teams, and research to define appropriate indicators and metrics for success (5). It also identifies a series of challenges that are limiting the introduction, scale-up and uptake of geriatric oncology services that span the spectrum of cancer control, an overview of which are contained in Table 1.

Table 1: Key challenges facing geriatric oncology	
Awareness	 Poor awareness of the signs and symptoms of common cancer types amongst older people Limited awareness of the burden of cancer on older populations amongst political leaders, local communities, the media and the medical community Misinformation amongst political leaders, local communities, the media and the medical community around the ability to successfully treat or manage cancer
Detection and diagnosis	 Limited capacities and use of comprehensive geriatric assessments to help shape and inform treatment pathways for older patients Uneven use of additional tools to screen, assess and refer older patients
Treatment and care	 Poor national development/integration of guidelines for the assessment and treatment of older people with cancer Limited capacities to manage patients with multiple morbidities Limited inclusion/support of family caregivers tending to patients outside of inpatient/outpatient settings
Health system integration	 Limited integration of training in geriatric oncology within core medical and nursing training Global shortage of geriatric specialists to support a multidisciplinary treatment approach Limited financial and other protection measures for older patients with cancer Limited availability of geriatric oncology clinics, particularly in low- and middle-income countries (LMICs) Variable integration of geriatric services within national health system and/or cancer planning
Research	 Poor integration of older patients into clinical trials, which reduces their relevance Limited basic and translational research into the needs of older patients with cancer Limited data on equitable access to services (including treatment and other forms of care) Limited data on the investment-case for geriatric service

Responding to the challenges set out above will require the engagement and support of the cancer and broader health community to reform current health systems. Many of these hurdles are not new, and there are numerous different models that we can consider when thinking through how progress could be made. Given its focus on supporting the strengthening of health systems to deliver quality care, we see several interesting connections between the approach used by the palliative care community and the goals of the geriatric cancer movement. Moreover, palliative care is an essential cancer service and part of a cost-effective and integrated approach which will form an important pillar of all geriatric cancer services (6).

Scaling-up coordinated geriatric care: Learning from approaches to palliative care

Palliative care is a holistic approach that seeks to improve the quality of life of patients and their families facing life-threatening illness from the moment of diagnosis (7). It is dependent on the early identification and assessment of conditions, and responds using multidisciplinary teams to treat pain and other problems, be they physical, psychosocial or spiritual, and should not be reduced down to solely end-of-life care (8). It provides an interesting patient-centred model which, in its optimal form, coordinates expertise from across disciplines to deliver a plan that is shaped around the needs and preferences of the patient. While many countries are struggling to deliver this universally, and there is an urgent need to scale-up access, particularly in LMICs; several of the approaches used in palliative care could help inform discussions, planning and practices in the scale-up of oncogeriatric care.

Comprehensive care assessments

The first of these is a focus on developing patient-centred care through the use of comprehensive care assessments to shape care plans and referrals. The use of comprehensive geriatric assessments (CGAs) to develop tailored treatment plans, based on the stage of disease and capacities of patients' is central to geriatric oncology. These assessments gather information not routinely captured in oncology assessments and have been found to increase the effectiveness, efficiency and quality of care. In Sweden, the use of geriatric assessments was found to both increase the cost-effectiveness of care and preserve patients' physical fitness after hospital discharge (9, 10). Likewise, effective palliative care is centred on a robust assessment of patient needs and preferences. The World Health Organization's (WHO) guidelines on the management of cancer pain call on all countries to make use of assessments as a starting point for action. In recent years, there has been extensive work to develop new tools to streamline this assessment process and thereby expand the settings in which assessments can take place and improve their applicability. Conversely, the literature indicates that the complexity of undertaking CGAs has limited their use (11), in turn suggesting that there is a need for accelerated work to refine these tools and complement them with additional tests in order to scale-up the use of CGAs across countries and healthcare settings (12).

Inclusive multidisciplinary tumour boards

Following an assessment, the second approach focuses on establishing multidisciplinary support teams to deliver care in a timely and coordinated manner. Palliative care, where implemented fully, draws on the expertise of multiple professions and there are strong examples of countries across different income levels making progress in coordinating multidisciplinary palliative care for older populations. In the context of health budget cuts, Edmonton, Canada, developed a comprehensive palliative care service consisting of family physicians, home care, hospice, a tertiary palliative care unit, and consulting services. The focus was on building a patientcentred system and facilitating easy and quick referral through to other levels of care as needed, to increase access and minimize the use of high-cost emergency services (13). In India, the development of palliative care services has seen significant localized health system reforms to establish a network of home-based care practitioners who can draw on the services of multidisciplinary collaborations to meet patient needs (14). In oncogeriatrics, tumour boards are the primary tool for multidisciplinary collaboration and the inclusion of geriatricians is an essential quality criteria; however poor engagement or availability of geriatricians has limited their systematic use. A focus on establishing mechanisms and building stronger collaborations between specialists and levels of the health system is essential, and has been a success factor in France, where networks for geriatric cancer centres have been established, but the role of geriatricians in the management of patients is still variable (15). What this suggests, however, is that integration is feasible and has the potential to increase the quality and financial efficiency of care, even amid challenging economic conditions.

Education and training

A final approach where there are fruitful parallels is in the strong focus on improving public awareness and increasing skills to deliver palliative care services. These can be broadly grouped under the heading of educational activities, which include communication and advocacy. Using additional training to improve clinical skills and retain palliative care staff has been central to the development of palliative care services, and there are several excellent examples from India, Uganda and Kenya. Responding to the shortage of trained health workers in Kathmandu, Nepal, a short course in palliative care was established to train nurses to deliver home-based palliative care in 2016. Looking ahead, work is being undertaken to support the integration of these nurses into the city and regional health systems to improve referrals and use of their skills (16). Given the global shortage of geriatric oncology training, the use of in-service and other training courses provides an interesting template which organizations like SIOG and others are exploring, including potential synergies with palliative care competencies (17). This is being conducted

alongside advocacy for the inclusion of geriatric oncology in core medical and nursing curricula (4).

In several countries, formal education of the health workforce has been supplemented with culturally relevant communityoriented educational initiatives, and collaboration with older people has helped reduce stigma and misinformation. In Uganda, a combination of media outreach and community volunteers was used to increase both provider and public awareness and this has been successful in destigmatizing death and raising awareness of the value of, and demand for, palliative care nationally (18). In comparison, the literature suggests that there is not the same demand for services amongst older populations and that this reticence to engage with health systems is resulting in late-stage presentation, poorer care outcomes and limited participation in clinical trials. Increasing awareness of the unmet needs for geriatric oncology, both amongst potential patients and decision makers, will be critical to build support for investing in the physical and human resources needed to develop or scale-up services.

Responding to outstanding challenges in geriatric oncology

While there are several valuable parallels between geriatric oncology and palliative care, the former is faced with some unique challenges to the scale-up of services. All policy and programme responses must be grounded in a robust evidence base, but for geriatric oncology there is a global shortfall in data and research. The regular inclusion of upper age restrictions for participation in research studies and clinical trials limits the applicability of study conclusions to older populations. Moreover, many countries' national statistics do not encompass older age groups and the data that much of the global reporting depends on either do not disaggregate by age or set age caps (19). A 2018 review of national cancer control plans (NCCPs), explored a number of key metrics indicating the comprehensiveness of the planning, including the needs of vulnerable groups. However, the review did not include indicators relating to older people with cancer. Few NCCPs include attention to older populations and this is perhaps symptomatic of the limited recognition of their needs. As the foundation for national action on cancer, NCCPs represent a logical starting point for comprehensive national advocacy around geriatric cancer.

Moreover, when assessing the impact of cancer on older populations, it is vital to consider the affordability of care. As countries look to implement financial protection measures as part of the drive to universal health coverage (UHC), older people are a key vulnerable group. Affordability of care is a large barrier for older patients with cancer, particularly

those individuals who may already be disadvantaged due to socioeconomic group, ethnicity or educational attainment. The long-term nature of many geriatric treatment pathways and the increasing use of novel treatments, particularly in high-income countries, pose an increasing financial burden for older people with limited financial flexibility. For example, in Nigeria, only 3% of the population is enrolled in the National Health Insurance Scheme, causing older patients with cancer to rely heavily on family and community support to fund their care (21). In the United States, Medicare beneficiaries, who are largely on fixed incomes, have a mean annual out of pocket spending of US\$ 8,115. Financial protection measures, such as national and non-governmental organization subsidies and reducing cost sharing, will be important to limit the financial burden of cancer care on older populations and are part of increasing health equity.

As discussions around the expansion of geriatric oncology develop further, it is important to recognize the political agency of older people in policy discussions, and the importance of engaging them in conversations at national and global levels about disparities in access to essential services. To date, these voices have been missing from the debate. In many countries, older people are an influential election demographic with the power to help drive significant reforms nationally. In Canada, 82% of people between the ages of 65 to 74 voted in the 2011 federal election, compared to 50%, compared to 50% between the ages of 18 and 24 (22). If harnessed, this growing population could become influential advocates for increased investment in health systems, and a stronger focus on the health needs of older people.

When thinking through how we are approaching cancer and a globally ageing population it is helpful to draw on other disease programmes, including those of communicable diseases that have a strong equity focus, are patient-centred and participatory. From the authors' perspective, the approaches used by the palliative care movement promote a holistic view of patient management and have the potential to help shape and inform cancer control programmes within the framework of a life course approach. This should not lead people to assume we can directly transpose the palliative care model, nor that geriatric cancer patients should only be

offered palliative care. Instead we see this as a contribution to the necessary conversation about how we respond to the needs of the majority of cancer patients globally. As UICC, we welcome the opportunity to discuss the further scale-up of services and how different approaches can promote health equity and address the needs of older populations effectively as part of a commitment to UHC and its rallying cry to "leave no one behind".

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