Top priorities for the global advancement of cancer care in older adults: An update of the International Society of Geriatric Oncology (SIOG) Priorities Initiative.

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Abstract

In 2011, the International Society of Geriatric Oncology (SIOG) published The SIOG 10 Priorities Initiative defining top priorities for the improvement of the care of older adults with cancer worldwide[1]. Significant scientific, clinical, and educational progress has been made in line with these priorities. In parallel, international health policy developments have occurred, such as the shift of emphasis by the World Health Organization from communicable to non-communicable diseases, and the adoption by the United Nations of its Sustainable Development Goals 2030. Therefore, SIOG has thought timely to update its priority list. The present document addresses four priority domains: Education, Clinical Practice, Research, and Collaborations/Partnerships. It includes input from SIOG members and from extensive consultations with partners across the world. SIOG hopes that it will offer guidance for international and national endeavors to provide adequate Universal Health Coverage for older adults with cancer, a major and rapidly growing group in global epidemiology.

Introduction

In 2011, the International Society of Geriatric Oncology (SIOG) published The SIOG 10 Priorities Initiative to define the top priorities for the advancement of geriatric oncology worldwide [1,2]. As the only global expert multidisciplinary organization dedicated to the care of older people with cancer, SIOG created a tool to guide policy making, and development of education, clinical practice and research. This document has been very favorably received and used in different jurisdictions around the globe (e.g.[3-6]). Since 2011, a significant amount of progress has been made in the field of geriatric oncology. SIOG and other expert societies have developed guidelines and consensus statements based on up to date clinical research to provide evidence-based care for older people with cancer[7,8]. Geriatric oncology programs have multiplied, although in an uneven fashion. For example some countries have multiple programs in organized systems, and others only a few programs stemming from local initiatives, and there is a large diversity of organizational models. Training courses such as the SIOG Treviso course have been established[9].

Nonetheless, there is still a pressing need to continue the development of initiatives to improve the quality of cancer care for older adults, and to translate them into broad standards of care. The World Report 2015 on Ageing and Health estimates that the number of people over 60 years of age will double by 2050[10]. In addition, over the last decade – as life expectancy has increased worldwide – chronic diseases such as cancer have become a major public health issue in both high income countries (HICs) and low/middle income countries (LMICs). This has prompted the World Health Organization (WHO) to refocus its activities toward non-communicable diseases. A prominent step forward has been the ICOPE (Integrated Care for Older People) guidelines coordinated by the WHO Department of Ageing and Life Course for implementation of patient-centered care[11]. In 2015, the United Nations adopted the 2030 Agenda for Sustainable Development, which includes 17 Sustainable Development Goals (SDG; https://sustainabledevelopment.un.org/?menu=1300, accessed 2 Nov 2019). Goal number 3 (SDG3) in

this agenda addresses health issues. Several points are particularly relevant to the cancer care of older adults (Table 1).

Therefore SIOG recognized the need to update its 10 Priorities Initiative. The Society deems it timely to invest in better understanding of the SDG3 challenges and priorities, to catalyze integrated and collaborative efforts, to guide appropriate financial and human resources allocation, and to advocate for quality in cancer services for the older adults within the goal of Universal Health Coverage (UHC).

In this update, the three initial categories of education, clinical practice and research have been enhanced by the addition of a section on collaborations and partnerships. Each section also now includes a reflection on how these priorities would apply in different economic settings, namely HICs and LMICs[12].

Methods An international multidisciplinary working group was established at the end of 2018 representing medical oncology, geriatrics, surgery, radiation oncology, anesthesiology, nursing, and patient advocacy. Input was sought from international health organizations, professional societies, and patient groups/consumers. Expanding on the framework of the 10 Priorities Initiative, this SIOG Working Group consulted the SIOG 35 national representatives as well as various governmental and non-governmental organizations (see Acknowledgments). The group had several in person and electronic meetings. Working subgroups initiated drafts and priorities on the 4 main sections (education, clinical practice, research, collaborations and partnerships). The manuscript was then integrated, reviewed, and went through several iterations until consensus was met. This first draft was then circulated for a second round of external feedback, before finalizing the present document. Where appropriate, we have drawn parallels with the SDG3 (Table 1).

Search strategy and selection criteria: This consensus article did not include a specific systematic review of literature. All SIOG national representatives, a large number of international organizations, and representatives of national health authorities were contacted. Their input was incorporated in the task force consensus work as above.

Priorities

-Education

Priority 1: Integrate geriatric oncology into medical, nursing, and allied health professionals school and residency training programs, and promote involvement of trainees in research.

Since all health care workers treating patients with cancer will be treating older patients to an increasing extent, a core set of required geriatric skills shall be formulated and integrated into general oncology training programs for physicians, nurses and allied health professionals. Conversely an oncology module should become an integral part of geriatric training. Key components of the education should include changes in cancers and patient biology and function with aging, the value of a geriatric assessment as time well spent in managing these patients, evidence-based personalization of treatment options including both tumor and patient characteristics, and integration of patient-generated goals of care. These should cover prevention, early diagnosis, management, rehabilitation, and end-of-life management of cancer in older adults, and understanding both the patients and their family various needs, including physical, psychological, social and financial ones[13].

Young clinicians and researchers in geriatric oncology, including nurses and allied healthcare professionals, should be supported by facilitating mentorships, international exchange, and scholarships. SIOG and other international organizations should strive to establish educational global

networks, programs, and teaching collaborations between leading institutions in geriatric oncology, in order to support less experienced institutions trying to initiate or develop geriatric oncology programs in their environment (see also Priorities 6 and 10).

Although the availability of resources may vary between HICs and LMICs, such training should be offered in both settings. Training programs should be adapted to the local resources and needs, and may leverage remote-learning opportunities offered by rapid progress in technology in order to broaden the reach of centers of expertise.

Priority 2: Provide educational material and organize formal educational activities focused on geriatric oncology for practicing health care professionals.

Continuing education after completion of baseline professional education is a key training component to ensure an impetus for change in clinical practice. Educational activities should be targeted for a broad range of professionals. Geriatric oncology sessions and workshops should be emphasized in national and international meetings. Training should be delivered at general oncology and general geriatric, as well as geriatric oncology specific meetings. The key contents should include the items mentioned in Priority 1. The training should harness the patient and caregiver experiences and expertise. A strong patient advocacy educational component needs to be developed in communities/regions where such advocates are scarce, or do not exist.

In LMICs, resource-stratified adaptations may be required to surmount economic difficulties for attending educational meetings. One potential method is “train the trainer” partnerships whereby key individuals from a LMIC may undergo training at established centers of excellence. Post training, these individuals will be expected to return to their country of origin to develop and apply their new skills there, becoming local educational leaders. Geriatric oncology experts can also be sent to LMICs to train

key individuals who can then be trainers within their respective communities. Free educational opportunities for frontline community healthcare workers are particularly relevant in LMICs, since they can increase awareness about geriatric principles and strengthen the capacity of healthcare systems to provide high-quality care for older adults with cancer.

Wherever possible, digital opportunities for education, including e-learning, online conference lectures, social media, webinars, podcasts, web-based tools, and mobile applications should be harnessed to disseminate knowledge of geriatric oncology to a broader public. These strategies could prove particularly useful for clinicians working in LMICs, for whom attendance at courses or conferences might be challenging (e.g. because of cost, travel, language barriers). Translation of evaluation instruments and education materials in various languages should be promoted and strongly supported as a way to remove barriers to access.

Priority 3: Educate the general public about the relevance of providing age-appropriate care for older adults with cancer.

The worldwide increase in life expectancy is a recent phenomenon and is accompanied by improvements in general health, function, and quality of life of older people. Social perceptions have yet to adapt to these facts however, and both images of successful aging and opportunities for oncologic management are not well known to the general public, or even medical professionals, which can lead to stereotyping and discrimination (ageism). Therefore an outreach to the general public and to political authorities is needed. Maintenance of independence and the ability to meaningfully contribute to society are a core goal of age appropriate cancer care. . This requires educating the public on common facts: occurrence of cancer and other chronic diseases in older people, the need for, and feasibility of, specific care in this population, issues of under- and over- treatment , specific needs or aims expressed

by older adults, etc. In addition, efforts must be made to focus public messages on healthy aging and on the active involvement of older adults in society, as well as on the fact that expenditure for the health and well-being of older populations represents an investment, rather than a cost. Research and care improvement actions need to be highlighted publicly through adequate communication channels, with specific aids (wording, self-explanatory figures, hearing/visually impaired access, etc.), to reach out to the general audience, call for advocacy, and eventually contribute to the push for age-appropriate care. Community education campaigns about the importance of understanding the unique needs of older adults with cancer and of providing awareness of the risk of ageism in health care are essential components of a multifaceted approach to improve global awareness of this key issue.

-Clinical Practice

Priority 4: Develop and implement models to provide optimal care for older adults with cancer.

Multidisciplinary patient-centered care for all older adults with cancer is necessary to achieve optimum goals. Although different non-exclusive models exist, teams organizing care for older patients must include both oncology and geriatric specialists. In some clinical healthcare organizations, the geriatric expertise brought to the oncologists is part of the supportive care program, while in others it is fully integrated within the oncology activity or established as a strong collaboration between departments or institutions. In other settings the resources of telemedicine could be leveraged for integrated tumor boards and consultations. Geriatric oncology principles (minimum standards) should be applied to older adults across all resource settings, regardless of stage in the cancer trajectory. This includes the performance of some form of geriatric screening and/or assessment to identify potential age-related problems and integrate it in the (electronic) medical record. The results of the geriatric assessment

should help in making informed treatment choices (e.g. by predicting the chance of severe chemotherapy-related toxicity)[14] and guide integrated geriatric and supportive care interventions for any detected health problems. Shared decision-making should include not only the patient, but also his/her caregiver(s).

The degree of integration of oncogeriatric interventions and opportunities for geriatric input/care into the oncology setting will differ depending upon the resources available. Therefore, different approaches may be required in HICs than in LMICs as well as according to practice size and setting. Importantly, the definition of older age will differ according to the health care setting in which it is applied[15]. Use of concepts like the 4M's (What Matters, Medicine, Mentation, and Mobility)[16] can be useful in designing "age-friendly" services regardless of the resource setting.

The provision of optimal cancer care for older adults will be best achieved in age-friendly health systems (AFHS) that provide UHC for all, regardless of the patients' ability to pay. The financial coverage for a geriatric assessment by a geriatrician or by an oncologist or another health-care provider trained to conduct such assessment should be promoted by state health policy as an essential health-care service for access to safe, high-quality, and effective treatment for older adults with cancer.

Priority 5: Develop guidelines for the optimal treatment of older adults with cancer.

The development of evidence-based guidelines specific to older adults with cancer is important to facilitate clinical practice improvements regardless of the resource setting in which they are applied. SIOG produces resource-stratified and multi-disciplinary guidelines applicable globally for specific oncological diseases, strategies and situations. These or other geriatric oncology guidelines should be applied in all clinical settings. Guidelines should recognize that care of older adults is

multi/interdisciplinary and be written for all clinicians in the cancer care team. Their use should be monitored and updated regularly.

Guidelines should cover the whole spectrum of needs: treatment choice and management; toxicity prevention; approaches according to specific tumor types; geriatric assessment and interventions; rehabilitation; cancer screening and prevention; diagnostics, and survivorship. These guidelines should highlight evidence specific to older adults with cancer, when available. When recommendations are based on general clinical trials, they should acknowledge the lack of specific data for the older population, wherever appropriate, and highlight the need for constant therapeutic strategy adjustments, including the possibility of de-escalation. Furthermore, guidelines should indicate in which areas there is the greatest need to establish new evidence specific for older adults with cancer[17]. Collaboration among international and national cancer organizations that produce highly acknowledged guidelines should be sought, aiming to incorporate the geriatric aspect in all future general oncology guidelines. Discussions for adaptation to meet the needs of the LMICs, as well as underserved areas in HICs, should be included, taking as a guide the WHO list of essential medicines[18]. Evidence-based proposals may be included beyond this list, particularly for high-benefit drugs of significant relevance for older patients.

Priority 6: Establish centers of excellence in geriatric oncology for delivering clinical care, conducting clinical and translational research, and providing educational opportunities.

Progress made during the last two decades has led to the creation and implementation of highly successful geriatric oncology facilities across the world, most of these located in Western Europe and North America. Their numbers should be expanded and further developed into geriatric oncology centers of excellence, which not only can provide high-quality clinical care but also offer training and research initiatives as local and regional leaders. In HICs, the goal should be to implement these

specialized units in all major academic medical centers. In LMICs, the initial goal should be to develop at least one such center nationally. In some LMICs, oncology services at specialized tertiary-level cancer centers may exist and geriatric oncology expertise can be created. These facilities should build upon the experience from their counterparts in HICs, as well as upon existing initiatives and lessons learnt in other LMICs through collaborations to provide integrated people-centered health services. In other cases, a "train the trainer" approach (see Priority 2) may be used to develop geriatric oncology expertise simultaneously with the development of the national cancer and geriatric infrastructure.

-Research

Priority 7: Improve the relevance of clinical trials to older adults with cancer.

The highest priority for research in geriatric oncology in both HICs and LMICs is to improve the relevance of clinical trials for older adults with cancer. Clinical trials should include this population in all treatment modalities, and promote enrollment from all ethnic/racial backgrounds.

Older adults are still underrepresented in clinical trials and those included often belong to a relatively healthy subgroup, due to restrictive eligibility criteria[17,19-21]. Less fit older adults and those with comorbidities may be limited in their ability to tolerate treatment or may be more likely to die from causes other than cancer. This may result in more toxicity or treatment-related complications and less significant treatment benefit compared to a younger, healthier population. For optimal tailoring of care for older adults with cancer, it is crucial that the evidence base guiding treatment decisions is expanded by broadening eligibility criteria of clinical trials[22]. Older adult-specific trials (with or without randomization, where appropriate) are needed when evidence from general trials is insufficient, in

particular for patients with multimorbidity and frailty. Translational research should be included to understand the changes in cancer biology and host-tumor interaction with age, comorbidity, and ethnicity. If such trials are not feasible, representative cohort studies may be conducted provided that the appropriate methodology is used to gain meaningful, statistically sound information.

Additionally, integrating a geriatric assessment into clinical trials would not only provide a much better understanding of the health status of the study population, but also allow for subgroup analyses as well as stratified accrual based on geriatric variables. Reaching a consensus on a core of selected geriatric data to share systematically across countries and culture would help to compare results and improve analysis and applicability of results to various settings. Potential sets could be the G-CODE initiative led by the French DIALOG intergroup[23], the geriatric assessment panel used by the Alliance and American cooperative groups[24], or by the EORTC[25]. Accrual may prove an issue irrespective of study design; therefore, encouraging older adults with cancer to participate in studies is an essential component for improving the evidence base in geriatric oncology.

Another important need is the inclusion of patient-centered outcome measures relevant to older adults, including patient-reported outcomes (PROs) and geriatric-specific outcomes[26]. Health-related quality of life (QoL), cognitive and physical functioning, care dependence, and caregiver burden should be given equal importance to the more traditional outcome measures such as efficacy and treatment-related toxicity, since for many older patients, maintaining QoL and independence are at least as important, if not more so, as survival itself[26]. Most research focusing on geriatric oncology and PROs has been done in HICs. Racial/ethnic background and cultural differences may affect patient priorities and how various PROs are valued. Therefore, additional efforts should be made to define which PRO measures are most relevant in LMICs and across racially and culturally diverse populations. Finally,

more research in humanities addressing social and personal aspects influencing trial and treatment participation should be conducted.

It should be further noted that trial design, feasibility, and the assurance of patient-centered goals can be greatly enhanced by the engagement of patients, caregivers, patient advocates and other stakeholders as partners in the research process. The value of their inclusion is well documented (in the US) in the experience of the Patient Centered Outcomes Research Institute (PCORI) and the National Cancer Institute National Clinical Trials Network Steering Committees (NCINCTNSC), among others[27-29].

Priority 8: Evaluate the benefits of geriatric assessment-allocated treatments and geriatric co-management in improving treatment outcomes for older adults with cancer.

Geriatric instruments and definitions of frailty for use in the oncology setting should be operationalized to guide treatment selection and interventions. Geriatric instruments can be questionnaires or in person tests for geriatric problems. Definitions of frailty aim at identifying key parameters that indicate a patient has a decreased functional reserve and is at increased risk of complications. Examples of such tools can be found at http://www.siog.org/content/comprehensive-geriatric-assessment-cga-older-patient-cancer or references[30,31]. Since the publication of the 2011 SIOG 10 Priorities Initiative, much work has been done in increasing the evidence base regarding the value of the geriatric assessment in evaluating a patient's health status, identifying previously unrecognized health problems that may be relevant for treatment decisions, and providing an overall assessment of the level of frailty.[30,31] In addition, multiple studies have demonstrated that awareness of frailty and geriatric impairments often leads to changes in the oncologic treatment plan.[14,32] Future studies should assess the impact of geriatric assessment and co-management on outcomes, as well as their use for treatment

stratification. Early results of four RCTs showing an impact on treatment tolerability, quality of life, and hospitalizations were recently presented[33-36].

This research will require operationalization and standardization of geriatric instruments and definitions of frailty specifically for the oncology setting. Although this is an area of active investigation, we do not believe we have yet tools that solidly report frailty for use in oncology decision making with actionable thresholds. It should also be acknowledged that frailty tools in oncology may be in some way different from frailty tools in the non-cancer older population because of the underlying impact of the cancer. For LMICs, this may also require either cultural and/or linguistic adaptations of tools existing in HICs, or the development of novel tools or measurements adapted to local characteristics. Large randomized trials designed to demonstrate the impact of geriatric assessment-guided interventions in oncology remain a high priority, since such oncology-specific data would greatly improve the rate of adoption of geriatric principles in the oncology community, as well as establish the most effective ways to implement comprehensive management.

To study stratification strategies, trials are needed that compare treatment outcomes between geriatric assessment-based allocation and standard treatment allocation (based on clinical judgment, chronologic age, and/or performance status). This may also include strategies that address optimal allocation of limited oncological resources. Furthermore, such research should include the possibility of using multidisciplinary interventions aimed at issues identified by the geriatric assessment to improve the patient's health status, their ability to tolerate treatment, and treatment outcomes. Success in disseminating the value of geriatric assessment and management for older adults with cancer and in leveraging the oncology community will come only through such stepwise and clear-cut demonstration.

Priority 9: Utilize personalized medicine technologies to enhance the precision of cancer understanding and management in older adults.

Harnessing the synergistic potential of basic and translational research in both cancer and aging retains its importance as a research priority. This includes understanding the interaction between cancer, cancer treatment, and age: how does age affect carcinogenesis and how does cancer treatment affect aging. Furthermore, biomarkers of aging potentially could be used to determine physiological reserve[37], which is relevant to prognosis as well as treatment tolerance.

In addition, big data analyses leveraging Artificial Intelligence and Machine Learning techniques are required to identify patterns of aging, comorbidity, and cancer, and to identify groups for tailored approaches. While the rapidly developing "–omics" provide opportunities for understanding cancer and aging on a cellular and organism level, big data and real-world data may be used to increase understanding of these processes on a population level. It remains essential to combine these types of data with clinical information derived from geriatric assessments in order to take all relevant domains into account. Big Data could be used to provide real time on-demand case references for treating older adults with complex cancer and comorbidity presentations. Data from wearable technologies could provide unique opportunities to track the impact of treatment on older adults with cancer and design targeted interventions. Integration with large epidemiologic datasets such as those of the Global Burden of Disease study could further enhance public health approaches to this issue[15].

-Collaborations & partnerships

Priority 10: Develop and strengthen links between SIOG & the geriatric oncology work force, international specialized agencies, global and regional professional organizations, policy makers, and patient advocacy groups.

Many healthcare systems are ill-prepared to face an aging population due to a lack of training, personnel, and resources. Partnerships with specialized agencies, global and regional professional organizations, and patient advocacy groups could help bring geriatric oncology to the forefront and highlight its relevance for the future not only of cancer care, but of healthcare in general. These collaborations should be carried out on a national, regional, and global scale, with equal participation from geriatric oncology stakeholders in HICs and LMICs, and with the ultimate goal of achieving UHC and meeting the SDG targets by 2030.

Countries need to find innovative financing and cross-sectoral accountable partnership mechanisms encompassing global-local, public-private and industry-academia, in order to increase investments for practical and cost-efficient solutions to this priority health care challenge. Patient advocacy can help garner political support for making an economic case to governments and the private sector for shifting from a cost to an investment perspective.

Global and regional public health agencies, including the WHO and its regional offices, should include integration of the provision of cancer care for older adults into initiatives aimed at the creation of AFHS. Additionally, regional and national agencies in charge of evaluating medicinal products and devices, such as the European Medicines Agency and the Food and Drug Administration, should strive to mandate the inclusion of relevant and representative quotas of older adults in registration clinical trials, and for the development of older-adult specific research for the approval of novel medicines, as mentioned in Priority 7.

For education (see priority 2 also), official collaborations through Memoranda of Understanding (MoUs), contracts, calls for scholarships or fellowships, etc., should be increased and strengthened with Universities. SIOG has established templates for such memoranda. Collaborations with organizations such as the World Federation for Medical Education and the International Council of Nurses would be helpful to integrate courses or modules on geriatric oncology into the general physician and nursing curriculums.

The involvement of older patients and their caregivers through advocates and patient organizations should be expanded at all levels of this global initiative (e.g. education, research, policy) supported by appropriate reimbursements.

Priority 11: Promote the inclusion of specific provisions for delivering high-quality evidence-based care for older adults in national cancer control plans.

The issue of cancer care for older adults is universal and represents an epidemiological challenge in need of political commitment at a global level. Meeting this challenge should be a priority for national healthcare systems worldwide, and should be included in national cancer care plans. Countries should create policies which aim at providing UHC for older adults with cancer, and at integrating oncology and geriatric training and competencies in health workforce training as stated in Priority 1. These policies should facilitate the application of geriatric assessment and management, and mobilize all stakeholders, including health insurance and public and private agencies, to broaden financial coverage and address education needs.

For HICs, this may include supporting integrated national healthcare systems in which teams of geriatricians, oncologists, and other healthcare professionals with geriatric training and expertise provide care for older adults with cancer. The reimbursement of geriatric assessments and interventions for older adults with cancer should also be ensured.

For LMICs, this may include the development or creation of cancer registries to better understand the epidemiology of cancer in older adults and to foster the development of core national centers of expertise. There is also need to create social protection schemes to reduce out-of-pocket spending for older adults with cancer. National governments should ensure access to essential cancer medicines, including those required for palliative and supportive care, relying on the WHO Model List of Essential Medicines List.

Priority 12: Create global funding mechanisms aimed at fostering professional development of the geriatric oncology workforce and promoting research on the interface of cancer and aging.

Global, regional, and national public funding organizations should prioritize the funding of multidisciplinary basic, clinical, and translational research aimed at improving the care of older adults with cancer. However, public funding ability to obtain substantial matching support from the private sector is limited by the absence of a market for such private sector investment in most contexts. Health care systems should work towards creatively setting new models of collaboration with the private investment sector. The pharmaceutical industry should support research initiatives testing novel drugs, devices and equipment systems for older adults with cancer. If this does not occur spontaneously, it should be formally requested and incentivized by governments and reimbursement organizations.

Funding and other incentives should be provided by governments to increase the number of healthcare workers who enroll in training programs in geriatrics, oncology, and geriatric oncology. In LMICs, economic incentives for the retention of geriatric oncology specialists should be provided in order to avoid a brain drain and increase the availability of cancer care providers with geriatric training and expertise. Development of research collaborations with HICs is desirable not only to develop local infrastructure, but also to achieve “reverse” or “trickle-up” innovation, through which research and

models of care developed in LMICs can be translated to healthcare settings in HICs. These collaborations should be equitable, avoiding “parasitic” research. Support funding should also be provided for young researchers and clinicians to obtain training and experience in centers of excellence located in both HICs and LMICs**.**

Conclusions

In this document, we provide a broad expert consensus on 12 priorities to advance the care of older adults with cancer on a global scale. We strive to harmonize these priorities with other global agendas, notably UHC and SDG3.4. We welcome the UN declaration on UHC at the UN General Assembly (September 23, 2019), and pay particular attention to how the priorities might be implemented in both HICs and LMICs. The aging of the world population is one of the key challenges of 21st century medicine and improvement in cancer care will only be achieved by close collaboration between medical societies and institutions, governmental agencies, private industry, media, and global health organizations, including patient advocacy groups. The commitment of UN members to achieving UHC is a key means for offering equitable cancer care to older adults, who represent a large and growing segment of the cancer population.

SIOG has chosen ambitious and visionary objectives to establish multidimensional, interdisciplinary processes to optimize the health and well-being of older patients with or without multimorbidities. The SIOG Top Priorities Initiative fits into much broader and long-term achievements of SIOG and its partners and worldwide efforts that have been progressing for more than a decade. We intend to ensure that the ongoing works of SIOG and its partners meet international goals and will have impact

well beyond the UN 2030 Agenda. This can be achieved by building even larger, more sustainable international networks for ultimately attaining '*worldwide health for all*'.

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Disclosures

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Tables

Table 1: Extracts from the United Nations Sustainable Development Goals document, goals 3: Good Health and well-being.

- **3.4** By 2030, reduce by one third premature mortality from non-communicable diseases through prevention and treatment and promote mental health and well-being.
- **3.8** Achieve universal health coverage, including financial risk protection, access to quality essential health-care services and access to safe, effective, quality and affordable essential medicines and vaccines for all.
- **3.A** Strengthen the implementation of the World Health Organization Framework Convention on Tobacco Control in all countries, as appropriate.
- **3.C** Substantially increase health financing and the recruitment, development, training and retention of the health workforce in developing countries, especially in least developed countries and small island developing States.
- **3.D** Strengthen the capacity of all countries, in particular developing countries, for early warning, risk reduction and management of national and global health risks.

Table 2: Summary of the updated SIOG Top Priorities for the global advancement of cancer care in older adults.

Education
Priority 1: **Integrate geriatric oncology into** medical, nursing, and allied health professionals schools and residency **training programs**, and promote involvement of trainees in research.
Priority 2: Provide **educational material** and organize formal educational activities focused on geriatric oncology **for practicing health care professionals**.
Priority 3: **Educate** the **general public** about the relevance of providing age-appropriate care for older adults with cancer.
Clinical practice
Priority 4: Develop and implement **models** to provide **optimal care** for older adults with cancer.
Priority 5: Develop **guidelines** for the **optimal treatment** of older adults with cancer.
Priority 6: Establish **centers of excellence** in geriatric oncology for delivering clinical care, conducting clinical and translational research, and providing educational opportunities.
Research
Priority 7: Improve the **relevance of clinical trials** to older adults with cancer.
Priority 8: Evaluate the benefits of **geriatric assessment-allocated treatments and geriatric co-management** in improving treatment outcomes for older adults with cancer.
Priority 9: Utilize **personalized medicine technologies** to enhance the precision of cancer understanding and management of older adults.
Collaborations and partnerships
Priority 10: Develop and strengthen **links between SIOG &** the geriatric oncology work force, international specialized agencies, global and regional professional organizations, policy makers, and patient advocacy groups.
Priority 11: Promote the inclusion of specific provisions for delivering high-quality evidence-based care for older adults in **national cancer control plans**.
Priority 12: Create **global funding mechanisms** aimed at fostering professional development of the geriatric oncology workforce and promoting research on the interface of cancer and aging.

Appendix

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