

Setting Up Geriatric Oncology Clinical Services: Asian Geriatric Oncology Society Guidelines 2025 (Part 1)

Purvish M. Parikh¹ Joyita Banerjee² Rejiv Rajendranath³ Naganath Narasimhan Prem⁴ Nidhi Soni⁵
T.V.S.V.G.K. Tilak⁶^{ORCID} and (on behalf of the Asian Geriatric Oncology Society)

¹ Department of Clinical Hematology, Mahatma Gandhi University of Medical Sciences and Technology, Jaipur, Rajasthan, India

² Department of Field Operations, Program for Global Health, Aging and Policy, CESD, University of Southern California, Los Angeles, California, United States

³ Department of Geriatric Oncology, Gericare Hospital, Chennai, Tamil Nadu, India

⁴ Department of Geriatrics, MOC, Mumbai, Maharashtra, India

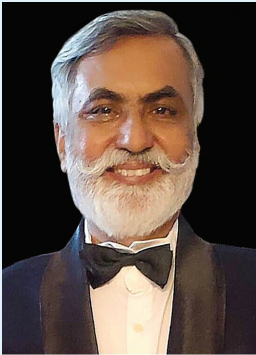
⁵ Department of Geriatric Medicine, All India Institute of Medical Sciences, New Delhi, India

⁶ Department of Medical Oncology, Air Force Hospital, Bengaluru, Karnataka, India

Address for correspondence Purvish M. Parikh, MD, DNB, FICP, PhD, ECMO, CPI, Department of Clinical Hematology, Sri Ram Cancer Center, Mahatma Gandhi University of Medical Sciences and Technology, Sitapura, Jaipur 302022, Rajasthan, India (e-mail: purvish1@gmail.com).

South Asian J Cancer

Abstract



Purvish M. Parikh

Keywords

- ▶ rationale
- ▶ key stakeholders
- ▶ clinical services
- ▶ data
- ▶ social media

In this article, the Asian Geriatric Oncology Society provides an overview on how to develop geriatric oncology services in the clinical setting. This overview gives an insight into the rationale; key stakeholders; four essential components of the services; multidisciplinary team and tumor boards; assessment and screening protocols; data, research, and audit; professional education, development, and training; and communication, awareness and social medial utilization. In the second part of the article, we focus on optimizing resource utilization in constrained settings—dividing them into “must have” and “good to have.”

DOI <https://doi.org/10.1055/s-0045-1806763> ISSN 2278-330X

How to cite this article: Parikh PM, Banerjee J, Rajendranath R, et al. Setting Up Geriatric Oncology Clinical Services: Asian Geriatric Oncology Society Guidelines 2025 (Part 1). *South Asian J Cancer* 2025;00(00): 00–00.

© 2025. MedIntel Services Pvt Ltd. All rights reserved.

This is an open access article published by Thieme under the terms of the Creative Commons Attribution-NonDerivative-NonCommercial-License, permitting copying and reproduction so long as the original work is given appropriate credit. Contents may not be used for commercial purposes, or adapted, remixed, transformed or built upon. (<https://creativecommons.org/licenses/by-nc-nd/4.0/>)

Thieme Medical and Scientific Publishers Pvt. Ltd., A-12, 2nd Floor, Sector 2, Noida-201301 UP, India

Introduction

Life expectancy is increasing globally. Even among low- and middle-income countries (LMICs), public health initiatives against communicable diseases have led to the people living longer. This has resulted in increase in lifestyle diseases, including cancer, cardiac ailments, and diabetes mellitus, among others. Technological advances have also led to more effective treatment options with a corresponding increase in disease-free survival and even cure.¹ This has also brought out new challenges. Older people are not the same as young active productive working adults. Age has its prerequisite consequences. Although chronological age need not necessarily be in sync with biological age, the age-related telomere length reduction has far-reaching consequences.² The spectrum ranges from subclinical attenuation of organ function reserve to gross manifestations of geriatric syndromes. Geriatric oncology services aim to provide optimal personalized care for older patients with cancer.³

Rationale for Geriatric Oncology Clinical Services: Recommendations by the AGOS

The complexity in the management of cancer patients is increasing. Treatment options are multiplying, biomarkers are enabling the identification of population likely to benefit, and treatment guidelines are providing a bouquet of standard treatments that allow selection based on patient features and preferences. Technological advances have also resulted in new and sometimes unpredictable toxicities.

An older person is different from his or her younger, fitter version. Comorbidities, polypharmacy, and metabolic and circulatory changes all gnaw at the elasticity, agility, and regenerative capacity of the cells and organs. Geriatric syndromes, fragility, sarcopenia, and mobility limitations reduce the capacity of the cells, organ, and body to tolerate the abuse and consequences of anticancer therapy.

Walking the tight rope where the therapeutic window is even narrower is challenging. This requires a team with collective expertise, experience, and insights. The dynamics are constantly changing. Newer options become available under the standard of care guidelines. The duration of therapy keeps increasing too. Patients live longer, often with operational cure that requires the right sequencing of drug combinations. In addition, drug–drug interactions add to the complexity. Artificial intelligence tools allow faster, comprehensive, and more accurate selection—to a point. However, the buck finally stops at the treating medical team.

When geriatricians and oncologists work together, their collective expertise increase the benefits exponentially. We even have India-specific validated tools Screening of the Older Person with Cancer (SCOPE-C) for geriatric assessment and prediction of tolerance of individual older patients.⁴ This allows personalizing and fine-tuning the treatment so as to reduce toxicity and increase survival. It is now well established that having a geriatric oncology service within a

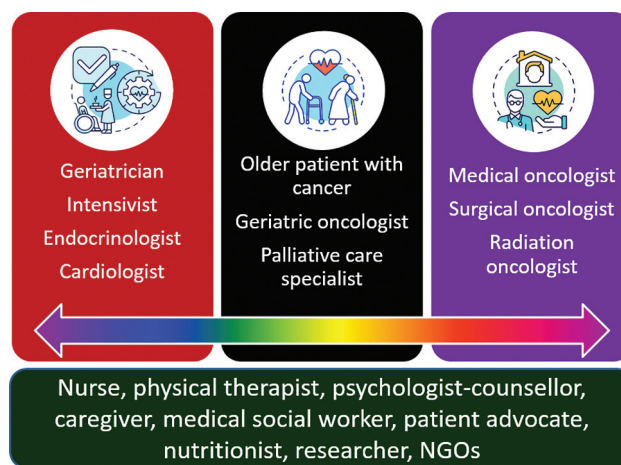


Fig. 1 Key stakeholders in a geriatric oncology clinical service. NGOs, nongovernmental organizations.

medical establishment benefits older patients, in terms of cure, survival, quality of life, and patient satisfaction.^{3,5}

Key Stakeholders, Common Goal, and Addressing a Vital Unmet Need

Geriatric oncology services have a common goal that needs a multidisciplinary team (MDT). Key stakeholders that can provide inputs and expertise to any geriatric oncology service are shown in **Fig. 1**. Even with optimal availability of resources, this is a complex endeavor. Not all are required and/or available at all times/facilities. This is particularly true for a specialty that is still evolving. Fortunately, with almost half of the newly diagnosed cancer patients being in the senior citizen age group, even the fence sitters and skeptics in the hospital administration are beginning to recognize the value of providing such services. A well-thought-out plan that outlines specifics of ethical, medical, social, and financial benefits in setting up geriatric oncology services is essential. Initially there will be teething problems. However, we need to be resolved to overcome them. Care that is currently being offered in a knee-jerk, haphazard, fragmented, and suboptimal manner will slowly transform into the intended multidisciplinary approach. The ripple effect will then enthruse key stakeholder and the attract the community to take advantage of the facilities being offered.

Components

An ideal geriatric oncology service can be divided into outpatient services, inpatient services, community outreach programs, and virtual/digital offerings.⁶

Outpatient Services

When a new facility or service is being made available, the team needs to be flexible, willing to adapt quickly, and make temporary arrangements to fill any gaps. Consistency and winning the trust of the patients is key to success.⁷ For this, attention has to be paid to the following:

- Clearly defined location, timing, human resource allocation.
- Change the availability based on patient flow/load (projected patient weekly visits—new and follow-up).

- Plan to modify based on dynamic requirements—will need to expand once patient and service load increases.
- One-stop facilitation—since geriatric patients have even greater difficulty in moving from place to place within the health care facility. Tools required for geriatric assessment to be available inhouse.
- Coordinate scheduling and location of services in proximity to and based on availability of members of the MDT.
- Ensure availability of ancillary service providers (e.g., phlebotomist).
- Smooth patient management flow based on time and motion studies.
- Dedicated data management and research infrastructure.

Inpatient Services

Referring health care professionals are usually smart and can quickly determine the value addition that the geriatric oncology team is able to deliver. They will then decide whether it is worth taking the extra effort to involve the geriatric oncologists and when to involve them. To be successful, the geriatric oncology service should have a simple and intuitive process for geriatric oncology referrals.⁸ They should also be dealt with promptly including giving feedback to the one referring the patient. Close liaison within the team and with outside stakeholders is essential. When specialized investigations or procedures are required, the standard operating procedure (SOP) should be followed diligently. The entire process and success stories also need to be publicized among all stakeholders. Collecting results and sharing success stories are the key to getting a buy-in from colleagues from other departments, especially the oncology and geriatric departments.

Community Outreach Programs

The service should plan a phase-wise outreach in the community.⁹ This should include doctors practicing in the vicinity or drainage area of the institution. Special attention should be paid to general practitioners and internal medicine specialists. They should be made aware that symptoms and complaints that older patients present with (e.g., weight loss, anorexia, pain) are not be presumed simply because of the normal aging process. They should be given guidelines on how to pursue a high index of suspicion for the overlap between geriatric issues and warning signs of malignancy.

They should be made aware that an early referral to the geriatric oncology service can improve survival as well as quality of life—even in older patients. Awareness programs should also be organized for community leaders and non-governmental organizations (NGOs; e.g., Lions, Rotary, Big Corporates, Ethnic groups). Dates for such activities should be carefully selected to maximize interest and participation from the community, for example, breast cancer day.

Virtual/Digital Offerings (See section on Communication, Awareness, and Social Media Utilization below)

The internet, data services, and smartphones are everywhere. The general population uses all possible avenues, including artificial intelligence tools (like ChatGPT and Meta AI), to find health care solutions that meet their expectations. Being visible online in the digital world, updating posts, and making it easier for geriatric oncology patients to find you are the need of the hour.¹⁰ Facebook, X (formerly twitter), YouTube, Instagram, and LinkedIn posts should complement an exclusive Web site. Customized apps and services can enhance the value of the services provided. When integrated into the hospital electronic medical records, they provide a seamless platform to communicate with the patients.

We know that 60% of Indian health care services cater to 30% of our population, mainly in the urban areas. The internet, social media, and digital solutions have the potential to overcome these challenges, especially with the use of telemedicine specifically catering to senior citizens.¹¹ It could also help reduce hospitalization for geriatric oncology patients. About 80% of such patients coming to an oncology center have a mobile phone. The number of patients having smartphones with internet access is lower, at approximately 30%. Only a quarter of patients actually access the internet and/or social media. Limitations include literacy, female gender, access to data signal, arthritis, visual impairment, and aversion to anything that is unfamiliar (–Table 1).^{1,11,12}

The solution could lie with their accompanying caregivers. Almost all (99%) have a mobile phone and three-fourths access internet and/or social media. India and other LMICs are known to have a very supportive social structure, especially in rural areas. Younger relatives, friends, and neighbors chip in during times of need. Geriatric oncology patients can

Table 1 Digital services for geriatric oncology patients^{1,11,12}

Sl. no.	Limitation	Potential solution
1	Older patients tend to be less familiar with digital and social media technology	Apps and platforms should be simple
2	Visual limitation	Use larger font
3	Arthritis	Avoid need to scroll or toggle from one screen to another
4	Intermittent electricity	Solar energy
5	Language barrier	Availability in multiple languages
6	General aversion or reluctance	Mobilize social support through younger family members, neighbors, and friends

easily overcome technology barriers with the help of this informal but robust support system.

Maintaining a dynamic and updated social media presence at regular intervals is key to a successful online offering.¹

Multidisciplinary Team Meetings

MDT meetings form a vital component to the functioning and success of geriatric oncology services. Each patient should be evaluated in a systematic manner using evidence-based medicine (–Fig. 1).^{3,5,13} It should be used as a platform to informally educate oncologists, geriatricians, and other health care personnel in the hospital about the explosion of geriatric oncology data/published evidence. It should also explain the rationale behind the individualized management of geriatric issues among cancer patients and highlight success stories where patient treatment plans differed from younger adults and how this change benefited them. The inputs from all members of the MDT should be heard patiently, given due importance, documented, used to modify patient management plans, and finally incorporated in policy decisions that enhance the value of geriatric oncology services. The proceedings of the MDT should be documented, and the decisions should be shared with the concerned members.

Assessment and Screening Protocols

There are several publications, guidelines, recommendations, and tools used for geriatric oncology patients.^{4,14–23} The spectrum ranges from screening tools to comprehensive detailed evaluation. Based on the institutional requirements, departmental service SOPs, patient load, and infrastructure/

resource availability protocols should be selected and used from time to time and on a case-to-case basis. For instance, the G8 screening tool could be used in all new patients and the Chemotherapy Risk Assessment Scale for High-Age Patients (CRASH) score used for patients planned for chemotherapy. It is preferable to use protocols that have been developed and validated in our/similar patients, like SCOPE-C.

There should also be guidelines of how young adult cancer protocols can be modified based on the geriatric assessment.

A representative list of such protocols is given in –Table 2.

SCOPE-C is the only tool devised and validated in the Indian population.⁴ It was developed by Banerjee et al and has been demonstrated to have a clear cutoff score to predict tolerability of cancer-directed therapy (–Fig. 2). It also correlates with survival. In the socioeconomic context of the India and LMICs as well as resource-limited settings, it is the first screening tool that we recommend.

The workflow of patients should also be streamlined. Usually, a patient suspected to have cancer (at any age) is referred to the oncology department. They should also undergo a comprehensive evaluation by a geriatrician, preferably with oncology interest/experience. Older patients with the presumed diagnosis of geriatric syndromes/problems/multiple morbidities are referred to the geriatric departments. Once the diagnosis of a malignancy is confirmed, they should be referred to the appropriate oncologist, preferably with geriatric interest/experience. As the setting up of the geriatric oncology services progresses, an MDT (as shown in –Fig. 1) should provide a 360-degree service to the geriatric oncology patient and all such patients should also

Table 2 Representative sample of commonly used geriatric screening tools in oncology patients^{4,14–23}

SCOPE-C	Only tool devised and validated among Indian geriatric oncology patients (comprehensive assessment of 8 domains with clear cutoff predicting outcome)	Banerjee et al ⁴
VES-13	Age, self-rated health, three questions on functionality (total 6Q)	Saliba et al ²⁰
G8	7 Q from the MNA scale, 1 Q on age (total 8 Q)	Bellera et al ²¹
Abbreviated comprehensive geriatric assessment (CGA)	3 Q on ADL, 4 Q on IADL, 4 Q on GDS, 4 Q on MMSE (total 15Q)	Overcash et al ²²
Brief CGA	Domains: functional, comorbidity, cognition, psychologic, social support, social functioning, nutrition	Hurria et al ¹⁹
Oncogeriatric screen (OGS)	2 Q on autonomy, 2 Q on depression, 2 Q on cognition, 2 Q on nutrition, 1 Q each on comorbidity and polypharmacy (total 10 Q)	Valero et al ²³
Flemish version of the Triage Risk Screening Tool (fTRST)	A score of ≥ 2 indicates high-risk patients within the geriatric population A score of ≥ 1 is considered a high geriatric risk profile within the oncologic population Prognostic for functional decline during therapy and higher mortality rates	Fagard et al ¹⁵
Chemotherapy Risk Assessment Score for High Age Patients (CRASH)	Twenty-four parameters for assessing average per-patient risk of chemotherapy toxicity	Extermann et al ¹⁶
Cancer and Aging Research Group (CARG)	Three items for health care providers and six items for patients	Hurria et al ¹⁹

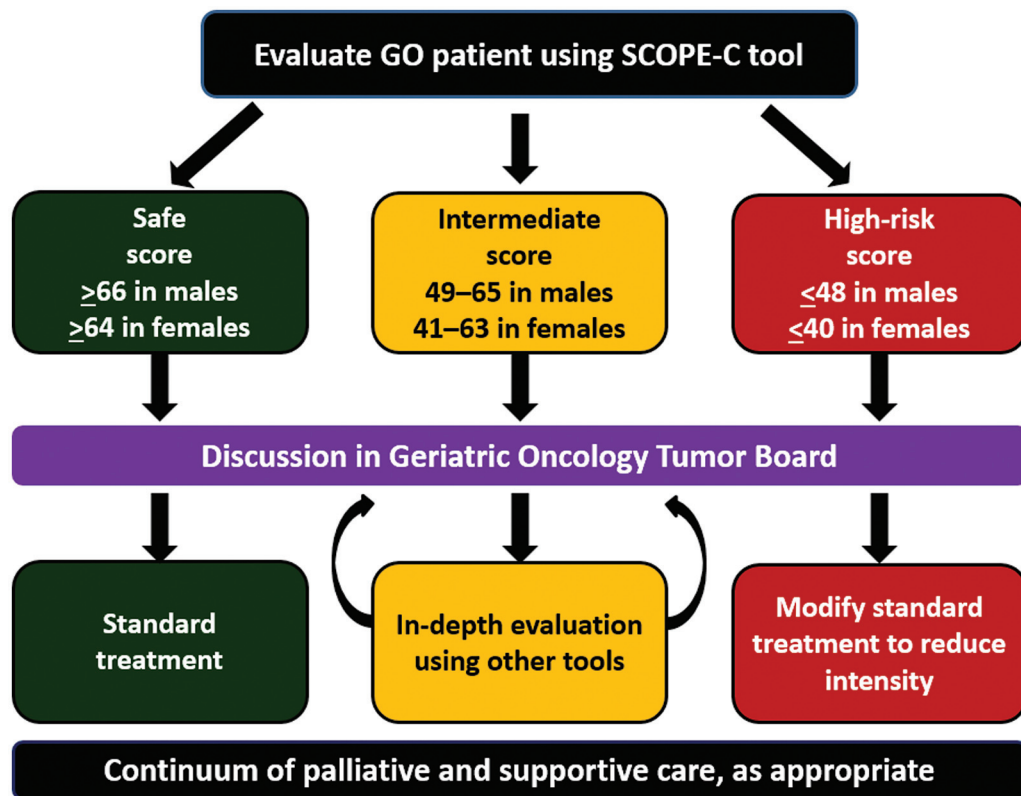


Fig. 2 Algorithm for risk scoring and treatment modification using the SCOPE-C tool.

be discussed in the Multidisciplinary Team (MDT) prior to initiation of therapy.

Data Collection, Research, and Audit

In today's day and age, it is a regulatory requirement to maintain patient medical records.²⁴ The institutional SOP for the same needs to be followed. In addition, geriatric oncology-related data should be collected and preserved so as to allow a rapid and accurate audit. Ultimately, it is our objective to improve patient outcome, and a predetermined process should be in place to find out whether this goal is being achieved or not. Sufficient infrastructure and human resource should be developed to ensure this in the long term.

Geriatric oncology has several gray areas and unmet needs.³ Hence, research will be of immense value, even at the global level. The Asian Geriatric Oncology Society (AGOS) actively encourages research and publication.¹³ It is also a part of the AGOS Vision 25 by 25. A snapshot of some of the important publications in geriatric oncology from India are listed in [Table 3](#).^{1,3–5,17,18,25–30}

Professional Education, Development, and Training

Regular teaching and training of junior doctors and nurses is also a fundamental responsibility in geriatric oncology. Rounds of inpatients, teaching rounds, journal clubs, case presentations, seminars, and workshops should be done from time to time.^{3,5} Creating awareness regarding the geriatric oncology service among other departments in the hospital as well as new developments in the field is

encouraged. Data should also be presented in local, state, national, regional, and international conferences as appropriate. Centers are also encouraged to take advantage of certificate courses, workshops, seminars, and training courses offered by the AGOS.¹³ Fellowships and degree courses in geriatric oncology can also be developed as part of the long-term plan. The AGOS will provide a formal curriculum/syllabus to interested members.

Communication, Awareness, and Social Media Utilization (See also section on Virtual/Digital Offerings above)

Just because a service is available does not necessarily mean that its intended beneficiary will be referred to you. It requires planning. Key stakeholders whose inputs need to be taken before the service is officially made available include institution administration, key medical departments that should refer suitable patients, and other stakeholders whose active participation is vital to making the service successful. This will also help in understanding their expectations and modifying the plan as required. A vibrant inauguration at the hands of the senior-most person in the institution is helpful. This will also ensure that the public relation and marketing departments of the institution help disseminate the information. A circular signed by the dean/principal and sent to all faculty members of the institution will complement the inauguration. Special brief in-person speeches should be planned for allied health care staff likely to be involved in the care of these patients, for example,

Table 3 Snapshot of key publications in Geriatric Oncology from India^{1,3–5,17,18,25–30}

Author	Title	Journal, year
Vijaykumar et al	Geriatric oncology: the need for a separate subspecialty	IJMPO, 2012
Vora et al	Geriatric oncology in India: a data on patient profile from one of the cancer centers in North India	Journal of Geriatric Oncology (JGO), 2012
Sarkar and Shahi	Assessment of cancer care in Indian elderly cancer patients: a single center study	SAJC, 2013
Patil et al	Patterns of care in geriatric cancer patients: an audit from a rural based hospital cancer registry in Kerala	IJC, 2015
Banerjee et al	CDK4 in lung, and head and neck cancers in old age: evaluation as a biomarker	Clinical and Translational Oncology, 2017
Parikh et al	Geriatric oncology landscape in India: current scenario and future projections	CRST, 2020
Banerjee et al	A short geriatric assessment tool for the older person with cancer in India: development and psychometric validation	JGO, 2019
Ostwal et al	Cancer Aging Research Group (CARG) score in older adults undergoing curative intent chemotherapy: a prospective cohort study	Geriatric Medicine, 2021
Banerjee et al	Lung cancer in the older population: Interactive effects of angiotensin converting enzyme gene polymorphism (rs 4340 ID) and tobacco addiction in risk assessment	Indian Journal of Cancer, 2021
Kandel et al	Challenges in management of the older patients with cancer: report from a low- and- middle income country	Journal of Indian Academy of Geriatrics (JIAG), 2021
Banerjee et al	Implementing and validating a care protocol for older adults with cancer in resource limited settings with a newly developed screening tool	JGO, 2021
Noronha et al	Impact of the geriatric assessment on cancer-directed systemic therapy in older Indian persons with cancer: an observational study	CRST, 2022
Soni et al	Health-related quality of life in treatment-naive, older patients with cancer from India: a prospective observational study	CRST, 2022
Shah et al	G8 and VES-13 as screening tools for geriatric assessment and predictors of survival in older Indian patients with cancer	JGO, 2022
Noronha et al	The current status of geriatric oncology in India	Ecancer, 2023
Swamy et al	Improving care for older adults with hematological malignancies in India: conquering the challenge	JGO, 2023
Sankarapillai et al	Epidemiology of cancers among older adults in India: findings from the National Cancer Registry Program	Public Health, 2023
Pathi et al	Unmet needs in geriatric oncology	SAJC, 2023
Kumar et al	An analysis of psychological problems in older Indian patients with cancer	JGO, 2024
Rao et al	Assessing frailty in older Indian patients before cancer treatment: comparative analysis of three scales and their implications for overall survival	JGO, 2024
Sansar et al	At crossroads: the challenges for geriatric oncology in India	SAJC, 2024
Akhade et al	Geriatric oncology in LMICs: it is time to mature	BMC Geriatrics, 2024
Rao et al	Assessing frailty in older Indian patients before cancer treatment: comparative analysis of three scales and their implications for overall survival	JGO, 2024

nurses, pharmacists, and day care personnel. For the department of oncology and geriatric medicine, a more detailed and sustained interaction needs to be performed—taking care to outline how this new department will not infringe or encroach on their existing priority areas. Face-to-face/one-on-one interactions are important to resolve stumbling blocks and remove misconception.

Availability of geriatric oncology services should also be publicized outside the institution. The use of institutional marketing personnel and social media plays an important role. Spreading the message that this service shall facilitate longevity will be a positive communication strategy. Once the service gains traction, endorsement by patients who are happy with their experience will be independent validation.

Care should be taken that this is done directly by patients in compliance with applicable regulations and keeping in mind the need to preserve confidentiality.

The importance of the right communication strategy, good communication skills, and judicious use of social media cannot be overemphasized.³¹

Conclusion

Geriatric oncology is here to stay as a vital specialty, since about half of all cancer patients belong to the older (geriatric) age group. Geriatricians and oncologists come together to provide personalized care to patients based on their individual characteristics and preferences, in the setting of a dedicated geriatric oncology service. Such an approach has been proven to reduce toxicity and optimize survival. This requires an in-depth patient assessment and fine-tuning of protocols normally used in younger adults. A lot of research and publications support this conclusion. Yet, several areas of unmet needs exist—providing an excellent opportunity to do research that will have worldwide application. Those who take up this specialty as their professional path are likely to move forward quickly and have the satisfaction of having recognized the potential of a growing field.

Funding

None.

Conflict of Interest

None declared.

References

- Prem NN, Pillai A, Banerjee J. Making the seniors tech savvy: the way forward to bringing cancer care to the doorstep. *Cancer Res Stat Treat* 2022;5:163–164
- Verma AK, Singh P, Al-Saeed FA, et al. Unravelling the role of telomere shortening with ageing and their potential association with diabetes, cancer, and related lifestyle factors. *Tissue Cell* 2022;79:101925
- Pathi N, Parikh PM, Banerjee J, Tilak T, Prem NN, Pillai A. Unmet needs in geriatric oncology. *South Asian J Cancer* 2023;12(02):221–227
- Banerjee J, Behal P, Satapathy S, et al. Implementing and validating a care protocol for older adults with cancer in resource limited settings with a newly developed screening tool. *J Geriatr Oncol* 2021;12(01):139–145
- Parikh PM, Chaitanya K, Boppana M, Kumar SM, Shankar K. Geriatric oncology landscape in India: current scenario and future projections. *Cancer Res Stat Treat* 2020;3(02):296–299
- Karnakis T, Souza PMR, Kanaji AL, Chinaglia L, Bezerra MR, Almeida OLS. The role of geriatric oncology in the care of older people with cancer: some evidence from Brazil and the world. *Rev Assoc Med Bras* 2024;70(1, Suppl 1):S118
- Alibhai SMH, Alam Z, Saluja R, et al. Economic evaluation of a geriatric oncology clinic. *Cancers (Basel)* 2022;14(03):789
- Townsley CA, Naidoo K, Pond GR, Melnick W, Straus SE, Siu LL. Are older cancer patients being referred to oncologists? A mail questionnaire of Ontario primary care practitioners to evaluate their referral patterns. *J Clin Oncol* 2003;21(24):4627–4635
- Lichtman SM. Integration of geriatrics in oncology training: the relationship between the academic center and the community. *Crit Rev Oncol Hematol* 2000;33(01):57–59
- Eng L, Bender J, Hueniken K, et al. Age differences in patterns and confidence of using internet and social media for cancer-care among cancer survivors. *J Geriatr Oncol* 2020;11(06):1011–1019
- Alexander K, Tin AL, McMillan S, et al. Telemedicine in geriatric oncology is here to stay. *Front Med (Lausanne)* 2024;11:1439975
- Sukino. The Effects of Social Media on the Elderly. 2024. Accessed January 22, 2025 at: <https://sukino.com/the-effects-of-social-media-on-the-elderly/#:~:text=Negative%20Impact%20of%20Social%20Media,in%20access%20and%20technology%20literacy>
- The Hindu. Geri Care hosts first Asian Geriatric Oncology Society Conference in Chennai. 2024. Accessed January 22, 2025 at: <https://www.thehindu.com/news/cities/chennai/geri-care-hosts-first-asian-geriatric-oncology-society-conference-in-chennai/article68693710.ece>
- Zuccarino S, Monacelli F, Antognoli R, et al. Exploring cost-effectiveness of the comprehensive geriatric assessment in geriatric oncology: a narrative review. *Cancers (Basel)* 2022;14(13):3235
- Fagard K, Casaer J, Wolthuis A, et al. Value of geriatric screening and assessment in predicting postoperative complications in patients older than 70 years undergoing surgery for colorectal cancer. *J Geriatr Oncol* 2017;8(05):320–327
- Extermann M, Boler I, Reich RR, et al. Predicting the risk of chemotherapy toxicity in older patients: the Chemotherapy Risk Assessment Scale for High-Age Patients (CRASH) score. *Cancer* 2012;118(13):3377–3386
- Rao AR, Noronha V, Ramaswamy A, et al. Assessing frailty in older Indian patients before cancer treatment: comparative analysis of three scales and their implications for overall survival. *J Geriatr Oncol* 2024;15(03):101736
- Shah M, Noronha V, Ramaswamy A, et al. G8 and VES-13 as screening tools for geriatric assessment and predictors of survival in older Indian patients with cancer. *J Geriatr Oncol* 2022;13(05):720–730
- Hurria A, Mohile S, Gajra A, et al. Validation of a prediction tool for chemotherapy toxicity in older adults with cancer. *J Clin Oncol* 2016;34(20):2366–2371
- Saliba D, Elliott M, Rubenstein LZ, et al. The Vulnerable Elders Survey: a tool for identifying vulnerable older people in the community. *J Am Geriatr Soc* 2001;49(12):1691–1699
- Bellera CA, Rainfray M, Mathoulin-Pélessier S, et al. Screening older cancer patients: first evaluation of the G-8 geriatric screening tool. *Ann Oncol* 2012;23(08):2166–2172
- Overcash JA, Beckstead J, Extermann M, Cobb S. The abbreviated comprehensive geriatric assessment (aCGA): a retrospective analysis. *Crit Rev Oncol Hematol* 2005;54(02):129–136
- Valero S, Fazilleau A, De Keizer J, et al. F-OGS, a new “Follow-up Onco-Geriatric Screening” tool during the follow-up of older patients undergoing oncological treatment. Pilot study of feasibility and acceptability. *J Geriatr Oncol* 2022;13(03):315–317
- Parikh PM. Ayurvedic doctors cannot prescribe allopathic medicines: National Consumer Dispute Redressal Commission judgement. *South Asian J Cancer* 2023;12(02):100–103
- Vijaykumar DK, Anupama R, Gorasia TK, Beegum TR, Gangadharan P. Geriatric oncology: the need for a separate subspecialty. *Indian J Med Paediatr Oncol* 2012;33(02):134–136
- Akhade A, Verduzco-Aguirre H, Gyawali B. Geriatric oncology in LMICs: it is time to mature. *BMJ Oncol* 2024;3(01):e000537
- Sansar B, Gupta A, Chitre A, et al. At crossroads: the challenges for geriatric oncology in India. *South Asian J Cancer* 2024 (e-pub ahead of print). Doi: 10.1055/s-0044-1786811
- Shivashankara BJ, Banerjee J, Mehrotra R, Wildes TM. Improving care for older adults with hematological malignancies in India: conquering the challenge. *J Geriatr Oncol* 2023;14(06):101536
- Ostwal V, Ramaswamy A, Bhargava P, et al. Cancer Aging Research Group (CARG) score in older adults undergoing curative intent

- chemotherapy: a prospective cohort study. *BMJ Open* 2021;11(06):e047376
- 30 Kandel R, Banerjee J, Saravanan M, et al. Challenges and determinants in the management of the older patients with cancer: report from a low- and middle-income country. *J Indian Acad Geriatr* 2021;17:2–8
- 31 Thapliyal K, Thapliyal M, Thapliyal D. Social media and health communication: a review of advantages, challenges, and best practices. In: Almeida R, Garcia M, eds. *Emerging Technologies for Health Literacy and Medical Practice*. Hershey, PA: IGI Global; 2024:364–384