THIS PUBLICATION IS DEDICATED TO

Arti Hurria, MD, FASCO
1970–2018

“Older people have much to teach us.”
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The oncology community has been repeatedly alerted about the demographic shift building momentum as the U.S. population ages.1,2,3,4 The National Academy of Medicine, American Society of Clinical Oncology (ASCO), the National Cancer Institute (NCI), and the American Cancer Society (ACS) are among the leading oncology organizations that have expressed concern over meeting future cancer care needs given that U.S. cancer incidence is projected to nearly double (approximately 45 percent increase) by 2030, from 1.6 million in 2010 to 2.3 million adults.1 More than two-thirds of this increase will occur among older adults, aged 65 and above. Estimates are that by 2030, 70 percent of cancers will be diagnosed in older adults.1

This demographic shift was highlighted in a 2013 special report from the National Academy of Medicine (formerly, the Institute of Medicine) Delivering High-Quality Cancer Care: Charting a New Course for a System in Crisis. The report concluded that our care delivery system is underprepared to address the specific needs of older adults with cancer. In 2014, ASCO’s Journal of Clinical Oncology [J Clin Oncol. 2014;32(24)] issued a special series on the status of geriatric oncology treatment and survivorship care. These reports call attention to a range of issues affecting the care of older adults with cancer, including:2,3,4,5

- High incidence of comorbidities and use of concomitant medications, often resulting in polypharmacy
- Age-related physiologic changes affecting overall health and response to treatment including potentially increased side effects
- Co-occurrence of mobility, functional, nutritional, and cognitive decline and impairments
- Under-representation of older adults in clinical trials resulting in limited evidence for clinical decision-making
- An existing and predicted shortage of geriatricians and geriatric oncology professionals to care for this population
- Financial, systemic, and practical barriers to accessing care
- Lack of adequate psychosocial support
- Heterogeneity of the older adult cancer population, differing patient goals of care and desired outcomes regarding survival and quality of life, functional status, and pain
- Lack of national readiness to care for this patient population.

INTRODUCTION

To launch this education project, ACCC conducted an online survey in July and August 2018. Survey questions aimed to elicit information on the current landscape of cancer care delivery for older adults, including respondents’ beliefs, barriers, and best practices. The survey received 332 responses from a diverse group of multidisciplinary professionals.

Survey respondents represented a cross-section of delivery settings:

- NCI Designated Comprehensive Cancer Program: 18%
- Community Cancer Program: 17%
- Academic Comprehensive Cancer Program: 17%
- Other: 16%
- Hospital Associate Cancer Program: 12%
- Outpatient Oncology Practice: 12%
- Comprehensive Community Cancer Program: 8%
The ACCC survey results show a striking difference between beliefs and practice. **95 percent of respondents “strongly agree” or “agree” that older adult cancer patients would benefit from a comprehensive geriatric assessment (CGA) in addition to the oncology assessment before the start of treatment.** Yet, little progress appears to have been made in converting awareness into action. **Only 17 percent of survey respondents report that they routinely conduct a CGA with their older adult patients.** Very few respondents (26 percent) are currently using screening tools to identify at-risk patients appropriate for a CGA.

In response to the current need, ACCC is bringing together resources to address these barriers, share information and validated tools for screening and assessing older adults, and provide various models that illustrate effective approaches in addressing the needs of this growing patient population.

Multidisciplinary providers from the following three programs participated in on-site focus groups during which they shared their challenges, successes, and strategies for improving geriatric cancer care:

- City of Hope Comprehensive Cancer Center
- The Ted and Margaret Jorgensen Cancer Center, Presbyterian Rust Medical Center, Presbyterian Health System
- Sidney Kimmel Cancer Center at Jefferson Health, Thomas Jefferson University Hospitals

Each site illustrates diverse approaches to improving care for this population. A key message from these programs: **there is no one-size-fits all solution to improving care for the older adult population.** Cancer care providers must consider their own resources, capacities, and patient needs, specific to their region and location. Through the combined efforts of geriatric oncology researchers, professional organizations, the Cancer and Aging Research Group (CARG), The Gerontological Society of America (GSA), the International Society of Geriatric Oncology (SIOG), and others, there are validated tools available for improving the care of senior adults with cancer. **Using just one of these tools can take as little as 30 seconds of clinicians’ time but can make a significant impact on clinical decisions and the provision of patient-centered care.**

To help, ACCC has created an online hub of resources and tools, and an expert-led on-demand webinar series at accc-cancer.org/geriatric.
Most of the patients I see are geriatric. I’m already providing great care. What’s the need for a formal geriatric assessment?

Despite some very solid interventions and approaches, inconsistencies exist that continue to silo and exclude older adults from innovative and experimental treatment modalities. As a society we tend to be far more proactive and preventive with younger versus older clients/patients, which is a clear example of anachronistic ageism.12

“I didn’t know what I was missing—you’ve been taking care of elderly patients for a long time, so you assume you’re doing everything you need to do! Geriatricians taught me my favorite line—we don’t know what we don’t know ... You don’t get ‘grandfathered’ into this; we need to raise awareness. You wouldn’t look at treatment of pediatric patients like you would adults. So why look at adult patients and geriatric patients the same? You shouldn’t! Geriatrics and pediatrics have a lot more in common than they do with (the) average adult.”

Andrew Chapman, DO, FACP

Current Recommendations for Routine Implementation of Geriatric Assessment

To improve treatment outcomes for older patients, in 2018 ASCO issued clinical practice guidelines for utilizing validated and standardized clinical assessment tools to evaluate and manage age-related conditions not routinely captured in oncology assessments and associated with adverse outcomes in older patients with cancer.13 The ASCO expert panel found strong evidence that traditional oncology performance measures, such as the Karnofsky Performance Status (KPS), do not accurately predict which older adults are at highest risk of adverse outcomes when receiving chemotherapy. The panel identified a range of additional vulnerabilities or domains otherwise not well identified through standard oncology assessment.13,14

At a minimum, the evidence supports collecting data on the following vulnerabilities: evaluation of functional status, comorbid medical conditions, physical performance and falls, depression, social activity/support, nutritional status, and cognition. SIOG also recommends evaluation of polypharmacy to the minimum data set.15

The ASCO recommendations call for conducting comprehensive geriatric assessments (CGAs) in patients being considered for chemotherapy age 65 and above. Available evidence also supports use of CGAs in older adults receiving other treatment modalities. Patients with multiple comorbidities could benefit from assessment regardless of age, which could mean assessment of a 50 or 55-year-old patient.

• A comprehensive geriatric assessment provides a detailed evaluation of medical, psychosocial, and functional problems in older patients with cancer. It can identify areas of vulnerability, predict toxicity and survival, assist in clinical decision-making, guide the development of individualized treatment plans, improve provider-patient communication, and predict treatment completion.

• Several studies have shown that a CGA may change treatment decisions—to either more intensive or less intensive options—in 5 percent to 50 percent of older adults.13,14,16,17

• CGA results can be provided to patients and caregivers to help guide shared clinical decision-making, as well as to identify additional interventions needed to support patient adherence and treatment completion. Of note: While most ACCC survey respondents (59 percent) reported some knowledge of the Shared Decision-Making Model and recognized its benefits (68 percent) in treatment-related communication, far fewer (37 percent) said they feel confident in using this collaborative process for engaging patients (and caregivers) in clinical decision-making.

• A CGA may involve a number of validated tools that assess specific domains, for example, the Mini-Cog, a brief cognitive screening tool, or the CRASH (Chemotherapy Risk Assessment Scale for High-Age Patients) tool, which estimates the risk of grade 3 or higher toxicities in patients age 70 and above.

• Self-administered patient screening tools can be used in lieu of routine implementation of full CGAs that may be more time and resource intensive. Validated tools such as the Geriatric 8 (G8) or the Vulnerable Elders Survey-13 (VES-13) can be completed by patients, scored by practice staff (or automatically calculated in the electronic medical record), and can help clinicians identify patients who require additional interventions.
**Components of Usual vs. Comprehensive Geriatric Assessment**

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<td>Past Medical History</td>
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<th>COMPREHENSIVE GERIATRIC ASSESSMENT</th>
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<td>COGNITION</td>
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<td>FUNCTIONAL STATUS</td>
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**Usual Assessment**
- Details
- Functional impact
- System review
- Review medical record
- Risk factors
- Screening status
- Health promotion activities
- Indications and effects
- Comprehension
- Compliance
- Polypharmacy

**Comprehensive Geriatric Assessment**
- Dementia
- Confusion
- Mood
- Alcohol
- Substance abuse
- Activities of Daily Living (ADLs)
- Instrumental Activities of Daily Living (IADLs)
- Lifestyle
- Recent life changes
- Rehabilitative potential
- Gait speed
- Timed Up and Go
- Short Physical Performance Battery
- Anxiety/depression
- Mental health inventory
- Weight loss/gain
- Dental
- Language
- Hearing
- Vision
- Home safety evaluation, current living environment, its appropriateness to function and prognosis
- Accessibility
- Hazards
- Family situation & availability
- Caregiver network, including caregiver burden, deficiencies, and potential
- Finances
- Community supports and services required and received

Mohile et al. (2015). Geriatric Assessment-Guided Care Processes for Older Adults: A Delphi Consensus of Geriatric Oncology Experts. Figure 2. J NCCN, 13(9).
Note: This chart represents combined data from both sources.
A man in his early 80s, diagnosed with metastatic lung cancer, was looking for a second opinion. During his first consult with his medical oncologist, the patient was advised to get his affairs in order and to consider hospice services. The patient and his family asked to be referred to a senior adult cancer clinic for further assessment. When he arrived for his comprehensive geriatric oncology assessment, he was on oxygen and could not get out of his wheelchair unassisted. Through his communication with the geriatric oncology team he expressed his desired goals/outcomes: gardening and being with his grandchildren. The geriatric oncology team evaluation consensus was that his impairment was due to his cancer, and he did not have comorbidities that were a barrier to treatment. The team had a discussion with the family, explaining that the lung cancer was not curable, but molecular testing could help determine if it was treatable. An EGFR mutation was identified. The patient was treated and within two weeks he was out of the wheelchair and back to gardening. Without a geriatric assessment, a medical team may have dismissed the patient as elderly based on his appearance, and foregone treatment. He lived for about two more years before going into hospice.

A woman in her early 80s had been diagnosed with gastric cancer and was transfusion-dependent due to bleeding in her stomach. Her surgeon was trying to convince the patient that surgery was needed to stop the bleeding, which would improve her quality of life. The patient’s daughter believed surgery was too risky and questioned the rationale for operating on an 82-year-old. The patient was passive, deferring to her daughter’s decision-making. The geriatric oncology team conducted a CGA and found her to be functionally “fit.” The team believed the patient would tolerate surgery well, which would likely stop the bleeding, end the transfusion dependence, and improve the patient’s quality of life. In discussion with providers at the center, the daughter understood that while the cancer could not be cured, there was a possibility that her mother’s quality of life could be improved. The patient had a sub-total gastrectomy, was home from the hospital in six days, and had a good quality of life for several more years. The geriatric assessment was a critical component to shared decision-making and conversations with the patient’s caregiver.
Each domain of geriatric assessment can provide a critical component to treatment decision and management. The table below identifies some typical findings and interventions that can be performed by the cancer team to mitigate risk and provide optimal patient-centered care.

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<th>IDENTIFIED IN ASSESSMENT</th>
<th>POSSIBLE INTERVENTION</th>
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<td>Pain, Nausea, Constipation, Side Effects</td>
<td>• Symptom management&lt;br&gt;• Palliative care&lt;br&gt;• Anticipate side effects and increase surveillance</td>
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<tr>
<td>Frailty</td>
<td>• Exercise or nutrition program prescribed&lt;br&gt;• Nutritionist or PT/OT referral&lt;br&gt;• Home safety evaluation</td>
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<tr>
<td>Polypharmacy</td>
<td>• Prevent drug-drug interactions&lt;br&gt;• Modify drug regimen&lt;br&gt;• De-prescribe as necessary&lt;br&gt;• Survey for potentially inappropriate medications (PIMs) in older adults&lt;br&gt;• Complementary and alternative medication use identified, unnecessary medication use identified, and drug discontinuation recommendations made</td>
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<tr>
<td>Cognitive Impairment</td>
<td>• Patient education modified&lt;br&gt;• Caregiver engagement enhanced, healthcare proxy identified&lt;br&gt;• Geriatrician or neurologist referral if applicable</td>
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<tr>
<td>Mobility &amp; Transportation Concerns</td>
<td>• Connect with support and community resources&lt;br&gt;• Provide telehealth or home health options</td>
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<tr>
<td>Depression or Suicide Risk</td>
<td>• Referral to social work&lt;br&gt;• Identify causes for depression and patient goals&lt;br&gt;• Consider antidepressants and cognitive therapy&lt;br&gt;• Spiritual care</td>
</tr>
<tr>
<td>Other</td>
<td>• Modify goals of care considering patient preferences (including spiritual and religious)&lt;br&gt;• Make specific dietary recommendations</td>
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To learn more about comprehensive geriatric assessment methods, validated screening tools, and other resources to use with your older adult patients, visit accc-cancer.org/GeriResources.
THREE APPROACHES TO IMPROVING CARE FOR OLDER ADULTS WITH CANCER

Expanding the Evidence Base

City of Hope Comprehensive Cancer Center
Duarte, California

City of Hope, an NCI-designated Comprehensive Cancer Center and founding member of the National Comprehensive Cancer Network (NCCN), is well known for leading-edge cancer treatment, research, prevention, and education. The organization’s mission is “to transform the future of health through exquisite care, innovative research, and vital education focused on eliminating cancer and diabetes.” With clinical trials at the core of its mission, City of Hope typically has about 300 research studies underway, enrolling approximately 40 percent of eligible patients.

City of Hope is advancing knowledge, training, and resources to understand and improve care through its Center for Cancer and Aging (formerly known as the Cancer and Aging Research Program), and its leadership in the Cancer and Aging Research Group (CARG). The CARG connects geriatric oncology researchers in a collaborative to design and implement clinical trials to improve the care of older adults with cancer.

“The only requirement for membership is the desire to help older adults with cancer.”

www.mycarg.org

The mission of the Center for Cancer and Aging at City of Hope is “to join investigators from all cancer disciplines to study biology, treatment, and survivorship issues that face older adults with cancer.” In 2015, under the leadership of Arti Hurria, MD, FASCO, the George Tsai Family Chair in Geriatric Oncology, director of the Center for Cancer and Aging at City of Hope, this program received a grant from the UniHealth Foundation, which is allowing the research team to study integration of a comprehensive geriatric assessment (CGA) into routine practice. As part of the study, a multidisciplinary team works to address patient needs identified through the CGA. The CGA tool used in this study was, “… devised in collaboration with members from the Cancer and Leukemia Group B (CALGB) Cancer in the Elderly Committee, [and] garnered expertise from specialists in geriatrics, oncology, psychology, quality of life, health outcomes research, and biostatistics.” The CGA is available for free and in nine languages on the CARG website, www.mycarg.org. Through this study, researchers at City of Hope look to:

- Reduce serious cancer treatment-related complications, which can lead to unnecessary hospitalization.
- Empower patients to make informed management decisions.
- Improve quality of life for patients and families.
- Improve communications between patients and providers.

Need for More Evidence

At the 2018 ASCO Annual Meeting, Dr. Arti Hurria addressed under-representation of older adults in FDA registration trials. Calling attention to the fact patients age 75 and older make up the largest enrollment gap, Dr. Hurria noted that over 10 years (2001-2011) no change had occurred in age distribution in the NCI Cooperative Group clinical treatment trials (phase 2 and 3). In her remarks she cited the work underway with the Cancer in Aging Research Group (CARG) U13 conference series in identifying research priorities. She also urged that FDA labeling include more information on dosing for older adults, and that all stakeholders should work together to improve the evidence base for this growing patient population. “Geriatric oncology is a close community,” Dr. Hurria said. “You are welcome to join us. This is where the action is.”

www.mycarg.org
"Older patients are not an exception. They are the majority."

William Dale, MD, PhD

The accrual goal for the study of 600 patients was achieved in February 2019; a subset of patients is participating in the study via telehealth at two of City of Hope’s community site locations with an accrual goal of 100 additional patients.

The team working on the study includes geriatric oncology clinicians, geriatric-certified nurse practitioners, an adult gerontology certified nurse specialist, supportive care physicians, rehabilitation staff (PT/OT), clinical research assistants, dietitians, social work staff, pharmacists, and the program director. The team meets weekly to discuss patients’ health status, CGA results, treatment recommendations, and referrals for patients. Recommendations from these meetings are immediately emailed to the patient’s primary oncologist and (with the patient’s permission) to the primary care physician as well.

Gaining buy-in from patients’ primary oncologists has not been difficult, explains medical oncologist, Daneng Li, MD. “Doctors like the study. They’ve found it beneficial. Physicians understand they are getting additional help and support for their patients and will even proactively reach out to be sure a patient is included.” Every single medical oncologist (20-30 physicians) at the institution has accrued patients in the study. “With the model we’re developing, the primary oncologist is still the care team lead, but we are able to support them with a multidisciplinary team. We don’t take decision-making away from them, but we’re there to support them throughout the [patient’s] course.” Over time, the program has adapted to ensure that they are adding benefits to the patients without overly burdening providers.

There are real-world concerns that arise with a model like the one in this study. Providing resources for sufficient support staff is critical to providing the value-focused care that is offered. One critical member of the team is Leana Chien, MSN, RN, GCNS-BC, GNP-BC, a geriatric nurse practitioner who is integral in the collaboration between the medical oncologists and the team, as well as the patients. Each patient is assessed with the CGA and based upon this assessment, recommendations and interventions are provided for each patient. With the final data, the team is aiming to prove the model’s viability and significance relative to improved patient outcomes.

“Every oncologist can do what we’re doing here. However, for community oncologists to adopt this, it needs to be tailored to them,” said Dr. Li. He cautions that interpreting the CGA sometimes is complex. The score is a number, but each component of the score may hold different meaning for each patient.

Another critical collaborator is William Dale, MD, PhD, who is a board-certified geriatrician and palliative medicine physician, as well as a health services researcher. “Geriatric oncology is melding geriatrics and oncology. It can’t be one or the other. That’s why the new ASCO guidelines recommend every cancer patient over 65 receive a CGA. Each disease entity, each NCCN guideline, should have a specific section for older adults. That takes a lot of individual disease-specific studies.” Dr. Dale agrees that interpretation of the score is challenging, but he suggests that you can look at the individual elements you’re most concerned about and then assign your own weight depending on your needs. Most importantly he states, “you really need all of the domains [covered by a CGA] to guide treatment decisions.”

Not only can clinicians assign different weights to specific assessment areas, but the score itself can become a component in individualized and shared decision-making conversations with each patient. A score could be used to communicate treatment risks to a patient and discuss with them various management options. “We can’t assume that an 80-year-old doesn’t want treatment,” said Dr. Dale. “Rather, we need to weigh the risks from treatment against the risks of progressive cancer. These CGA tools have been shown to provide vital information to guide care decisions.”
Comprehensive Geriatric Assessment in Routine Practice

For the team meeting, the geriatric-certified NP provides a care summary and the CGA score. The CGA is conducted on day one of treatment, at six months, and at the end of treatment—or if there is a change in treatment.

Each team meeting is conducted like a tumor board. Usually scheduled for one hour, the meeting typically allows for review of four to six patients. During the meeting, the pharmacist reviews and discusses the patient’s medication list. Other providers offer perspectives from their areas of expertise. At the conclusion of the discussion, the team will make recommendations regarding the patient’s care. These are then sent to the patient’s primary oncologist and (with the patient’s permission) also sent to the primary care provider. Below are two examples of how the team collaborates in case discussions.

Patient #1
Female breast cancer patient, age 68, who has started cycle 1 of her treatment.

The patient’s geriatric assessment results—the patient scored 100% KPS; identified comorbidities were arthritis, anxiety, existential angst; the patient reported being less socially active than previously due to her illness; her social support score was 90%.

Based on all the domains of the comprehensive geriatric assessment, this patient was classified as low risk for chemotherapy toxicity (grade 3-5 side effects) based on the CARG toxicity risk score.\(^1\) Medical oncology reviews the chemotherapy toxicity score to see if there is anything concerning in terms of the selected treatment.

The group discussed the patient’s reported fatigue; activity was suggested to help mitigate this. The patient’s husband called to ensure that it really was okay for his wife to walk 90 minutes a day. The patient found walking helped lessen her fatigue. The patient was eating well and staying hydrated.

The CGA and patient follow-up supported by the UniHealth project “lets you look at the patient’s situation from different angles,” said nurse practitioner Leana Chien. For this patient, the team recognized that some of the toxicity points came from the recommended chemotherapy itself, therefore they were not concerned about the score and no treatment adjustments were made.

Patient #2
Male, age 71, with poorly differentiated neuroendocrine tumor facing a very difficult treatment regimen.

The CGA showed the patient having a KPS of 80%, and comorbidities of chronic emphysema and high blood pressure. His score for social support was zero.

In this instance, the CGA revealed social isolation as a concerning issue, in particular because of the taxing treatment regimen for this cancer type.

For this case, the team discussion focused on how best to rehabilitate or prehabilitate the patient to address psychosocial issues that can be detrimental to patients’ outcomes.

In responding to questions on activities of daily living (ADLs), the clinical research associate commented that the patient may have misunderstood the assessment question. Sometimes patients will take the questions literally. For example, when this patient responded that he was unable to go shopping, what he meant was that it’s difficult for him to get to the store (i.e., lacking transportation).

This patient lives in a rural area and is participating via telehealth through the City of Hope affiliate site near his home.

Physical Therapy via Telehealth

In a telehealth appointment, City of Hope physical therapists can help older adults with cancer understand what is “reasonable and safe exercise” during treatment, discuss sleep hygiene, plan for energy conservation, and facilitate referral to a PT facility in the patient’s home community. Telehealth appointments are currently facilitated by a City of Hope clinical research associate who is on site in an affiliate location with the patient.
Through the CGA process, the nurse practitioner was able to share key information about the patient with the team and provide a fuller picture of his situation. As a veteran, he has good benefits through the VA system and sees his PCP regularly. He lives alone and tends to be the one providing support for his friends. He knows that as treatment progresses, he will likely require more help, and that social work services are available. While social workers are not assigned to this research team, all City of Hope social workers are licensed counselors and participate in the UniHealth project as needed. Although City of Hope does not yet have the capability to provide social work counseling via telehealth, they are able to provide PT, OT, nutrition, and pain consults, as well as connect patients to resources available through the City of Hope community sites.

From the perspective of breast cancer oncologist Mina S. Sedrak, MD, MS, although the geriatric assessment tool developed at City of Hope is drawn from the geriatric literature on older adults, it transcends age. “These are domains of care for any patients,” he said, recalling a 44-year-old patient with limited mobility, no resources, COPD, hypertension, and cardiovascular disease. “Functionally she was geriatric. I made 10 referrals on an initial visit! If she doesn’t have support, it doesn’t matter if she has viable treatment options. If she doesn’t have a home, how will she make a clinic visit?”

Educating Nurses to Improve Geriatric Oncology Care

In February 2019, City of Hope conducted its final training workshop of a five-year, R25 grant-funded program, “Geriatric Oncology: Educating Nurses to Improve Quality Care.” Oncology nursing teams from across the country attended a two-and-a-half-day training with City of Hope to advance their knowledge on caring for older adults with cancer. Almost 400 oncology nurses from across the nation attended this training. The curriculum covered geriatric assessment and key issues for older adults with cancer that can impact treatment and outcomes. The participants left the conference, not only with new knowledge, but also with a plan to implement actionable geriatric oncology nursing initiatives upon returning to their home institutions. City of Hope supports the attendees post-conference as they put into practice the goals they set at the training. Participants have continued follow-up with City of Hope researchers monthly and report on progress at 6, 12, and 18 months post-training. This grant looks to create a ripple effect as these oncology nurses share their new awareness of CGA and gerontology with their colleagues.
Presbyterian Health was founded in 1908, and like City of Hope (COH) the first mission of the hospital was to care for patients suffering from tuberculosis. Today, Presbyterian Health System is an integrated health system comprising nine hospitals in New Mexico. It is estimated that 1 in 3 patients in the state are treated at a Presbyterian facility. Cancer services are offered at Presbyterian Rust Medical Center, located in Rio Rancho, a suburb of Albuquerque, and Presbyterian Kaseman Hospital, Albuquerque.

The Ted and Margaret Jorgensen Cancer Center at Rust Medical Center opened its doors in February 2016. The facility houses a holistically designed multidisciplinary clinic that includes gynecologic oncology, radiation oncology, surgical oncology, and supportive care services.

At the Jorgensen Cancer Center, the impetus to re-assess care delivery for geriatric oncology patients began with nursing. Reading about the COH Geriatric Oncology training opportunity for nurses led clinical professional educator Melissa McLaughlin, MSN, RN-BC, OCN, to the awareness that a significant percentage of the patients being treated at the cancer center were over the age of 65. She and her colleagues understood that in caring for these patients, the issue is less about the patients’ chronological age, but more about their physiological/functional status, and geriatric screening and assessments provide a more complete perspective for the care team, the patient, and the family. These tools can identify factors, other than chronological age, that can impact mortality and morbidity such as:

- Functional Status
- Comorbid Medical Conditions
- Cognition
- Nutritional Status
- Psychological State
- Social Support
- Medications (Polypharmacy)
- Motivation
- Financial Issues

Together, McLaughlin and her colleague oncology clinic manager Chantel Tarin, BSN, RN, applied for the COH training and were accepted.

During the on-site workshop at COH, the team from Presbyterian learned about various geriatric assessment tools and how these could be implemented to inform patient care. At the same time, they worked to identify gaps and opportunities for improvement that could be translated into a feasible pilot project that would put their COH training into action.

The patient flow process at Jorgensen Cancer Center has the pieces of quality cancer care delivery in place: multidisciplinary tumor boards, a team of seven nurse navigators and three lay navigators, distress screening and Patient Health Questionnaire (PHQ) assessment, access to clinical trials, patient education materials in English and Spanish, social work and dietitian support services, financial advocacy services, a palliative care team, and survivorship care planning. The challenge was to look at everything from the perspective of the senior adult cancer patient.

**Clinical Trials and Older Adults**

In the ACCC survey, 62 percent of respondents reported that they are not aware of efforts in place or planned at their cancer program to increase clinical trial participation among older adults. The oncology community lacks data on older adults from clinical trials. In recent years, the FDA and NIH have enhanced efforts to address and remove barriers and include adults over 75, fueled in part by the 21st Century Cures Act. **What can your program do to enroll more older adults in clinical trials and contribute to better data on outcome prediction for these patients?**
As for any large health system, integrating a geriatric assessment into the patient workflow at Presbyterian would require multiple steps. Among the challenges:

- Determining who would be responsible for conducting the assessment
- Deciding which validated tool to use
- Working to ensure the assessment would be entered in the patient’s EMR
- Acknowledging time challenges in completing the assessment and addressing the needs identified.

The cancer program would require the capacity to connect patients to resources in the community or the health system to meet the needs identified by the CGA. All of this would take time.

Two other areas for consideration were oral oncolytics and oral health. Presbyterian had seen a spike in emergency department utilization specifically related to oral anticancer agent-related complications. The health system was already evaluating current processes and plans were underway to tackle this issue by creating a new oral oncolytic pathway, increasing the utilization of a Presbyterian-owned specialty pharmacy, and implementing TherigySTM™ specialty pharmacy software so that oral order sets could be built into the program’s EMR. Along with these steps, Presbyterian was also planning to place more pharmacy technicians into clinics to partner with triage nurses to support a continuous relationship and communication among these staff.

In the meantime, as a first step the nurse team decided to put their City of Hope training into action by assessing the existing patient education materials to determine if they were elder friendly. Working with their marketing department, they are in the process of re-doing the medication education materials for chemotherapy and oral oncolytics, reformatting these with larger fonts and more spacing. “It doesn’t help to limit the number of pages, if patients can’t read it,” said McLaughlin.

After concerns were raised by the Patient and Family Counsel, an internal survey revealed that patients are not aware of the importance of oral health for their overall well-being, and patients with cancer were not informing their dentists of their diagnosis or not receiving dental care at all. To raise awareness, McLaughlin and Lauren Decarlo Ingersoll, RN, worked with local dentists to create a tri-fold pamphlet that explains the importance of oral hygiene for overall health. The Patient and Family Counsel provided input into the final content and visual layout of the piece. This pilot led to several changes in practice including the development of door hanger materials with basic information about oral health, as well as a more detailed trifold with patient education that can be given to every patient (also available in Spanish). The pamphlet has been approved for use with geriatric cancer patients and as an added benefit, with general oncology patients (including pediatric patients).
Creative Collaboration to Reduce ED Visits and Readmissions

Two metrics often tied to value-based quality care are reductions in Emergency Department (ED) visits and hospital readmission rates. In April 2019 Presbyterian, in partnership with a community paramedic program, began a pilot project that aims to improve these metrics. A select group of highly experienced paramedics who have received training from the Presbyterian cancer program staff will bring physician-ordered care to “high-risk” oncology patients in their own homes. For the purposes of this pilot, “high-risk” is defined as a patient who has been in the hospital more than once in a month that the paramedic team can proactively manage and schedule, or patients who are calling into the cancer program but cannot get in to be seen that day. The paramedics will be able to assess the patient, see what the care challenges are in the home, provide IV fluids, pain management, symptom management (antiemetics), lab draws, ECGs, access central lines, and perform central line dressing changes. The paramedics will travel in SUVs, not ambulances, so that neighbors are not alarmed or concerned. The hope is that providing these services in the home will decrease the infusion center volume and keep the patients out of the ED and in their own homes. The paramedics will utilize the same EMR as the hospital, so that physicians and cancer center clinical staff can see the documentation and facilitate direct admissions to the hospital if needed. Although not designed specifically for the geriatric adult oncology population, this pilot has potential to improve care, costs, and the patient experience for senior adult cancer patients.

Presbyterian Health cares for a diverse community that includes both Spanish-speaking and multiple Native American populations. According to cancer center social worker Jamie McDonald, MSW, LCSW, OSW-C, complementary therapies that include culturally traditional cures can present a challenge. “Often a basic challenge is persuading the patient to let providers know if they are taking something that is culturally appropriate and supported but not FDA approved.” For older adults with cancer, traditional cures and healers may be especially valued. The difficulty is how to incorporate caring for the whole person with the challenges of encouraging patients to disclose use of alternative offerings, sorting through any contraindications or potential harms, and educating patients and families.

For Presbyterian Health, increased awareness of the potential to assess care delivery for its geriatric cancer patient population was sparked by nurse participation in the City of Hope training workshop. Presbyterian will continue to assess and improve its responsiveness to the needs of older adults with cancer, recognizing that it’s an iterative process that involves strong teamwork by engaged multidisciplinary stakeholders across the organization.
The Sidney Kimmel Cancer Center at Jefferson Health has nearly a decade of experience in delivery of comprehensive geriatric assessments through its multidisciplinary Senior Adult Oncology Center. Officially launched in 2010, the impetus for the initiative grew out of conversations between family medicine physician and geriatrician Christine Arenson, MD, and geriatric oncologist Andrew Chapman, DO, FACP, who shared an interest in and concern about the looming increase in the aging patient population, and recognized opportunities to better evaluate and care for the senior adult with cancer. At that time resources were sparse. They contacted Lodovico Balducci, MD, at Moffitt Cancer Center in Florida. Dr. Balducci, who is often considered the father of geriatric oncology, had established one of the few geriatric-focused oncology clinics at Moffitt. The team from Jefferson traveled to Florida to learn how Moffitt had structured and operationalized its geriatric clinic and, within several months, had a framework of their own. “People came out of the woodwork to participate,” recalls Dr. Chapman. “They were excited about doing this.”

Jefferson’s model is a one-time multidisciplinary consultative service that is interprofessional and team-based. All of the providers see the patient in one visit. Each appointment requires about two to two-and-a-half hours. Kimberly Brennan, RN, BSN, OCN, cancer care coordinator, prepares patients for their appointments. She first contacts the patient by phone to explain what to expect during the appointment and confirm the patient’s address. Next, she mails the patient a welcome packet that includes information on the clinic, paperwork to be completed, a map of the hospital campus, a letter explaining what to expect for the appointment, and information on free parking. She includes a bag for the patient’s medications and educates the patient and caregiver to bring all medications to the appointment. Prior to the visit, patients are asked to fill out the VES-13 (Vulnerable Elders Survey) and the FACT-G (Functional Assessment of Cancer Therapy - General).

During the visit, the patient is seen by the core team: medical oncologist, geriatrician, social worker, pharmacist, and dietitian. Other specialists are added as needed (e.g., radiation oncologist, physical therapist). Providers see the patient individually; drop-down office space is available so that team members can follow the evaluation progress in real time or complete other work. Because each team member has a formalized role, patients are not asked the same questions over and over. At the conclusion of the conference, the providers meet to talk through and synthesize the information gathered through the evaluation appointment and reach consensus on recommendations. The full consultative report including notes from each healthcare professional is completed within 24-48 hours and is available in the EMR, including the patient portal. For any patients/families or providers without access to the EMR, a faxed copy of all notes is sent.

Appointments are scheduled on Tuesday afternoons from 1:00 to 4:00 PM and on Friday mornings from 9:00 AM to 12:00 PM. The center can see up to four patients during the appointment block; patients are typically referred by Jefferson providers but may also come from other networks.

To date, the center has served about 900 patients. Patients are typically aged 70 and above, because geriatricians believe that age 70 is “an inflexion point of comorbidities,” said Dr. Chapman. The transplant team at Jefferson has asked the center to see patients age 65 and above, and the program has also seen younger patients and patients of any age by provider referral.

“"Aging is universal, but it occurs at different rates in different individuals, so it is poorly reflected in chronological age. But even in healthy individuals, age is a risk factor for some acute complications of cancer treatment. That’s why assessing and treating the geriatric patient must be done on a patient-by-patient basis.”

Ludovico Balducci, MD
“Recommendations run the gamut,” said Dr. Chapman. “Sometimes it’s a treatment decision, sometimes the team identifies things to watch for down the line.” The center “elevates the process.” Patients and families leave with a “deeper understanding of what they are gaining and risking [with treatment options].”

Reimbursement

• Both physicians, the geriatric oncologist, and the geriatrician can bill for their services. Insurers have now recognized geriatrics as a subspecialty that can bill separately from primary care.
• The social worker and nutritionists are supported by the cancer center.
• The pharmacy school supports the pharmacist’s time if training is involved.
• As an academic center, the program has students from various disciplines including pharmacy, social work, and medicine with residents and fellows rotating through.
• The patient has two co-pays for the center appointment, one for each physician.

With close to 10 years of experience with this model, the team at Jefferson shared some lessons learned:

• The geriatric oncology evaluation cannot be a barrier to the start of treatment; providers will not want to wait two or three weeks to have the patient come into clinic. At Jefferson, the Senior Adult Oncology Center can see patients within 48 hours of referral.
• Ensure that primary care physicians and referring providers understand the interprofessional consultative purpose of the patient visit to the senior adult oncology clinic.
• Emphasize that the senior adult clinic is not taking over care of the patient; the consultative service aims to support the patient’s primary oncologist and primary care provider.

“This is a model that lives in an NCI-Designated Cancer Center housed in an academic medical center,” Dr. Chapman stressed. “It’s not meant to be the only best way to deliver care. This is a model we put together because it made sense here—with one academic hospital and 13 community-based sites.”

The center also recognizes the barriers inherent in this model: for patients it can mean two hours to travel into the city, two hours for evaluation, then two hours home. To address this, the team has developed a multidisciplinary telehealth option for patients to be seen by the entire team in the comfort of their home or local physician’s office. To date the feedback regarding patient satisfaction with this option has been exceptional; telehealth enables the center to bring these opportunities to patients in the community who have not had access to these highly specialized evaluations.

Another opportunity for improvement to the model that Jefferson acknowledges is regular collection of longitudinal data. Currently, patients are only followed on an as-needed basis, which is determined by the primary care provider, referring physicians, or patients/caregivers themselves. Dietitian Heather Bell-Temin, MS, RDN, CSO, LDN, and social worker Lora Rhodes, MSW, LCSW, do continue to follow patients (with the exception of transplant patients who are followed by the transplant team).
### Data Collected by Jefferson Senior Adult Oncology Center

The Jefferson Senior Adult Oncology Center collects data points for several domains within their work. Examples are included in the table below.

<table>
<thead>
<tr>
<th>GERIATRIC ONCOLOGY</th>
<th>PROVIDER CARE</th>
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<tbody>
<tr>
<td></td>
<td>• CARG toxicity score</td>
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<tr>
<td></td>
<td>• ECOG Performance Status</td>
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<tr>
<td>PHARMACY</td>
<td>• Potentially Inappropriate Medication (yes or no)</td>
</tr>
<tr>
<td></td>
<td>• Adherence (yes or no)</td>
</tr>
<tr>
<td>NUTRITION</td>
<td>• Polypharmacy (yes or no)</td>
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<td></td>
<td></td>
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<tr>
<td>GERIATRICS</td>
<td>• Mini Nutritional Assessment</td>
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<td></td>
<td>• BMI</td>
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<td></td>
<td>• % weight loss</td>
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<tr>
<td>SOCIAL WORK</td>
<td>• Vulnerable Elders – 13 score</td>
</tr>
<tr>
<td></td>
<td>• Mini-Cog (normal/abnormal)</td>
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<tr>
<td></td>
<td>• Geriatric Depression Score</td>
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<tr>
<td></td>
<td>• Falls in the last 6 months (yes or no)</td>
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<tr>
<td></td>
<td>• Timed Up and Go results</td>
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<tr>
<td></td>
<td>• Frailty Index (fit, vulnerable, or frail)</td>
</tr>
<tr>
<td></td>
<td>• Lee 4-Year Mortality Index</td>
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<tr>
<td></td>
<td>• Life expectancy (years)</td>
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<td></td>
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<tr>
<td></td>
<td>• Does patient live alone or with family?</td>
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<td></td>
<td>• Financial concerns (yes or no based on interview)</td>
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<tr>
<td></td>
<td>• Prescription Drug Coverage (yes or no)</td>
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<tr>
<td></td>
<td>• Advance Directive (yes or no)</td>
</tr>
<tr>
<td></td>
<td>• Referral (if yes to where, e.g., Philadelphia Corporation for the Aging)</td>
</tr>
</tbody>
</table>

### Evaluation Tools at the Clinic

Many validated assessment tools are used on appointment day. Kristine Swartz, MD, geriatrician and palliative medicine physician, reviews the patient’s functional status, assessing activities of daily living, history of falls, timed up and go (TUG); administers a geriatric depression screen (GDS10) and a mini-Cog. If patients are referred for a cognitive assessment, she will complete a full Montreal Cognitive Assessment (MoCA). She also confirms whether the patient has completed an advance care planning directive or medical power of attorney. Her approach to discussing goals of care with the patient may vary depending on the order in which she sees the patient. If she evaluates the patient before the geriatric oncologist, she has an opportunity to prepare the patient for a goals-of-care discussion. If she sees the patient after the geriatric oncologist, she can re-evaluate what the patient and family have heard and what their thoughts are.
“What tool you use isn’t as important as just using one! Pick what works for you.”

Supriya Mohile, MD, MS, University of Rochester Medical Center

Additional tools used for geriatric evaluation include:

- Performance status – ECOG
- Moffitt CRASH Score
- CARG chemotherapy toxicity calculator: score is a numeric value that predicts percentage risk for grade 3 to 5 toxicity
- NCCN Distress Thermometer

In addition to the assessments completed with the patient, Dr. Swartz consults the Lee four-year mortality calculator, which is a validated tool found on eprognosis.org and a statistical life table analysis published in JAMA (2011) as part of an article focused on cancer screening to estimate life expectancy in the absence of cancer. The dietitians complete the quick, easy-to-administer MNA (mini-nutritional assessment), which identifies patients at risk. In evaluating geriatric patients, they are assessing for malnutrition and food scarcity, i.e., difficulty accessing food, which the team from the Senior Adult Oncology Center noted is a significant issue for this patient population.

Medications and Pharmacy

Patients are asked to bring in all their medications. “I like to look at the bottles,” said Ginah Nightingale, PharmD, BCOP. “The medications may not be updated in the EHR, or the bottles may be outdated. Patients may say, ‘I take all my medications.’ But if the bottle is full then, clearly, they are not taking all their meds.”

At first patients were not so good about remembering to bring in their medications. Pharmacists Emily Hajjar, PharmD, and Dr. Nightingale, came up with a solution. Patients are mailed an attractive, sturdy navy-blue bag, featuring the Jefferson logo, a zipper closure, and a small handle in which to pack up and transport their pill bottles. Patient willingness to bring in medications immediately improved.

During the consultation, the pharmacists will explore how patients are managing their medications and document this information in the progress report, along with the potential for any drug-drug interactions. The pharmacists use the BEERS Criteria, pill burden count, and an assessment for high-risk medications (e.g., assess organ impairment and look at how the patient is managing any chronic diseases) as guides for making any recommendations to the treatment team. They also look at any complementary and alternative medicines the patient may be taking. The pharmacists will assess adherence with medication regimens and evaluate the patient’s ability to report adverse events.

Geriatric Screening Tools

Based on experience with the Senior Adult Oncology Center at Jefferson, Dr. Chapman believes that, at a minimum, every cancer program should be screening geriatric patients and that screening tools are a resource for providers in the community. “The patient may appear fine, but then the screening is abnormal. It’s an indicator that maybe they need help.” Dr. Swartz agrees, and sees two purposes for using geriatric screening tools: to identify problems for which you have an intervention and can correct, and even if there are no interventions available, just the knowledge of a problem(s) can help inform treatment decision-making. Among the screening tools available are:

- SOAP-2 (Senior Adult Oncology Program 2)
- G8 (Geriatric 8)
- VES-13 (Vulnerability Elderly Survey-13)

Over the past 10 years, Dr. Chapman says the geriatric oncology team at Jefferson has taught him that an older patient can be:

- Malnourished even though the patient is obese.
- At risk at home.
- Cognitively impaired even though they “play the game” in the office.

“In the community setting, when you recognize that you [the provider] need some help, that may be the most important step. Identify that you need additional help with the patient and that the patient needs to be referred.”
SAMPLE GOALS FOR WORKING WITH YOUR OLDER ADULT PATIENTS

Not sure where to start? It is possible to make a huge difference with low (or no) cost, simple interventions. Consider some of the ideas below and modify the implementation plan as needed to fit your organization.

Find a list of validated tools at accc-cancer.org/GeriResources.

EASY, FIRST STEPS

- Incorporate the ACCC 6-part webinar series into your staff training (accc-cancer.org/geriwebinars).
- Perform a short screening tool (G8, VES-13, etc.)—At a minimum, screening can identify if more is going on with the patient and if help is needed.
- Host a geriatric communication skills sensitivity training.
- Provide patients with pill organizers (if appropriate considering safety/handling of oral chemotherapy) to manage medications.
- Add Timed Up and Go test to vital-sign collection, monitor results over time to assess physical function.
- Administer NCCN Distress Thermometer, referral to social work with scores over 4.
- Assess the availability and viability of caregiver. If the patient is 90, the daughter may be 70.
- Assess for depression or mood disorders, things that may be bubbling under the surface, by asking: “How’s your mood?” “How’s your appetite?” “How are you sleeping?”
- Identify Geriatric Oncology-led CME programs for interdisciplinary staff.

MEDIUM, MOVING AHEAD

- Use a toxicity calculator (CARG or CRASH score)—Every patient should be considered for a chemotherapy toxicity calculation before ordering treatment (note: the tools have not been validated for all treatments, e.g., not for transplant and immuno-oncology).
- Identify patients taking 10 or more medications and instruct patients to bring in all their medications for review with updated information in the EHR. Identify potential ways to discontinue unnecessary medications or medication duplicates. Review medications for appropriate indication, dose, route, frequency, duration, and toxicity.
- Find ways to get more savvy with technology to help with medication management and polypharmacy screening if you don’t have a clinical pharmacist on site.
- Host tumor boards or case conferences dedicated to older adult patients, including staff members from each domain of geriatric assessment.

LARGE, FOCUSED EFFORT

- Add geriatric screening or assessment tools to patient waiting rooms using tablets or paper; connecting to EHR, if possible.
- Schedule pharmacy education appointments including a formal screen for polypharmacy.
- Hold multidisciplinary tumor boards that focus on the needs of the older adult and review assessment scores as a team.
- Partner with a local medical school program to train students interested in geriatric oncology.
- Send staff for additional geriatric training or hire gerontology-certified professionals.
- Invest in health information technology (HIT) that supports screening patients for high-risk medications.
- Assign a dedicated geriatric oncology pharmacist to the service (clinic or center) to provide patient education, formal screening, consultative services, and medication education/training to staff.
- Collaborate and contribute to research initiatives focused on medication use and treatment-related outcomes in older adults.
CALL TO ACTION

A common message from three cancer programs visited for this project is that for any oncology care provider—regardless of setting, size, organizational structure—the first step is awareness. “I didn’t know what I was missing because I assumed—as do most medical, surgical, and radiation oncologists—the majority of the patient population is elderly; therefore, you do a great job of taking care of the elderly,” said Dr. Chapman. “Recognizing the demographic, that is the real opportunity.”

Part of that awareness is the value added from a geriatric evaluation. Each of these cancer programs is finding approaches to improve care for older adults with cancer that connect with emerging requirements to demonstrate value in care delivery such as reducing ED visits and hospital readmission rates, engaging patients and families in shared decision-making, and improving the patient experience of care. “There is no right or wrong way to approach this,” Dr. Chapman said. “Look at your local environment; look at what makes sense. Just start.”

REFERENCES


Photos on pages 11, 13, and 14 courtesy of Presbyterian Healthcare Services.
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SPECIAL RECOGNITION

A special thank you to the three cancer programs we visited—and the following individuals who met with us, shared their experiences, successes, and plans for improving the delivery of care to the growing population of older adults with cancer.

**City of Hope Comprehensive Cancer Center**

Dhvani Bhatt, MS, RD, CDE, Clinical Dietitian
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Ginah Nightingale, PharmD, BCOP, Clinical Pharmacist
Lora Rhodes, MSW, LCSW, Social Worker
Kristine Swartz, MD, Co-Director, Senior Adult Oncology Center
A publication from the ACCC education program, “Multidisciplinary Approaches to Caring for Geriatric Patients with Cancer.” Learn more at accc-cancer.org/geriatric.

The Association of Community Cancer Centers (ACCC) is the leading education and advocacy organization for the cancer care community. ACCC is a powerful network of 25,000 cancer care professionals from 2,100 hospitals and practices nationwide. ACCC is recognized as the premier provider of resources for the entire oncology care team. For more information, visit accc-cancer.org or call 301.984.9496. Follow us on Facebook, Twitter, and LinkedIn, and read our blog, ACCCBuzz.

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