Introduction

- This clinical practice guideline for older patients with cancer provides recommendations on the appropriate implementation of validated and standardized clinical assessment tools and decision-making models for this vulnerable and prevalent demographic group.

- It provides information on how these tools can be integrated into clinical oncology care to efficaciously evaluate and manage age-related conditions associated with adverse outcomes in older patients with cancer.

- While geriatric assessment has been shown to potentially be beneficial for older patients undergoing different cancer treatments (e.g., surgery, radiation), this guideline focuses on evidence for patients undergoing chemotherapy due to the robustness of data in this area.
ASCO Guideline Development Methodology

The ASCO Clinical Practice Guidelines Committee guideline process includes:

• a systematic literature review by ASCO guidelines staff
• an expert panel provides critical review and evidence interpretation to inform guideline recommendations
• final guideline approval by ASCO CPGC

The full ASCO Guideline methodology supplement can be found at:
www.asco.org/supportive-care-guidelines
Clinical Questions

This ASCO clinical practice guideline addresses four questions:

1. Should geriatric assessment (GA) be utilized in older adults with cancer to predict adverse outcomes from chemotherapy?

2. For older patients who are considering undergoing chemotherapy, which GA tools should clinicians use to predict adverse outcomes (including chemotherapy toxicity and mortality)?

3. What general (i.e., non-cancer specific) life expectancy data for community-dwelling patients should clinicians consider to estimate mortality and best inform treatment decision-making for older patients with cancer?

4. How should GA be used to guide management of older patients with cancer?
Target Population and Audience

Target Population
Vulnerable older patients with cancer

Target Audience
Medical oncologists, pharmacists, oncology nurses, patients, caregivers, palliative care specialists, advanced practice providers, geriatricians, primary care physicians, social workers, physical therapists, occupational therapists, nutritionists/dieticians
Summary of Recommendations

CLINICAL QUESTION 1
Should geriatric assessment (GA) be utilized in older adults with cancer to predict adverse outcomes from chemotherapy?

Recommendation 1
In patients age 65 and older receiving chemotherapy, geriatric assessment (GA)—the evaluation of functional status, physical performance and falls, comorbid medical conditions, depression, social activity/support, nutritional status, and cognition—should be used to identify vulnerabilities or geriatric impairments that are not routinely captured in oncology assessments. (Type: Evidence-based, benefits outweigh harms; Evidence quality: high; Strength of recommendation: strong.)
Summary of Recommendations

CLINICAL QUESTION 2
For older patients who are considering undergoing chemotherapy, which GA tools should clinicians use to predict adverse outcomes (including chemotherapy toxicity and mortality)?

Recommendation 2
While many tools are appropriate for assessment of each domain, the Expert Panel based its recommendations on evidence supporting their utility for predicting adverse outcomes and on ease of administration. In patients aged 65 and older receiving chemotherapy, validated and practical GA-based tools can be used to predict adverse outcomes.

- The evidence supports, at a minimum, assessment of function, comorbidity, falls, depression, cognition, and nutrition.
- The Expert Panel recommends IADLS for function, a thorough history or validated tool to assess comorbidity, a single question for falls, the Geriatric Depression Scale (GDS) to screen for depression, the Mini-Cog or the Blessed Orientation-Memory-Concentration (BOMC) test to screen for cognitive issues, and assessment of unintentional weight loss to evaluate nutrition.
- Either the CARG or CRASH tools is best utilized to obtain specific estimates on risk of chemotherapy toxicity, while short to ols such as G8 or VES-13 can help predict mortality.

(Type: Evidence-based, benefits outweigh harms; Evidence quality: high that GA tools predict chemotherapy toxicity and mortality; Evidence quality: moderate to recommend specific tools to evaluate GA domains such as function, comorbidity, depression, cognition, and nutrition; Strength of recommendations: moderate.)
Summary of Recommendations

CLINICAL QUESTION 3
What general (i.e., non-cancer specific) life expectancy (LE) data for community-dwelling patients should clinicians consider to estimate mortality and best inform treatment decision making for older patients with cancer?

Recommendation 3
Based on the best clinical opinion of the Expert Panel, clinicians should use one of the validated tools listed at ePrognosis to estimate life expectancy (LE) ≥ 4 years.

- The Expert Panel especially recommends using either the Schonberg or Lee Index. The most common variables considered in these indices include age, sex, comorbidities (eg, diabetes, chronic obstructive pulmonary disease), functional status (eg, activities of daily living [ADLs], instrumental activities of daily living [IADLs], mobility), health behaviors and lifestyle factors (eg, smoking status, body mass index), and self-reported health.⁴⁻⁵
- Several indices have “presence of cancer” as a relevant variable, and answering “no” to this question will allow for estimation of “non-cancer” life expectancy, in order to consider competing risks of mortality.

(Type: Informal Consensus, benefits outweigh harms; Evidence quality: high that it predicts mortality, insufficient that it improves outcomes or improves decision making; Strength of recommendation: strong that it predicts mortality; weak that it improves outcomes or improves decision making.)
Summary of Recommendations

**CLINICAL QUESTION 4**
How should GA be used to guide management of older patients with cancer?

**Preamble to Recommendation 4: The GA-Guided Care Processes Framework**
In patients 65 and older, GA can help guide treatment decision making and interventions. Recommendation 4 utilizes a GA-guided care processes framework.\(^6,7\) GA-guided care processes refer to the use of GA to (a) inform cancer treatment decisions (e.g., modification of chemotherapy dosing in patients with functional impairments); and (b) to select targeted interventions that could be implemented to address GA-identified vulnerabilities (e.g., mobility deficits). While there are not yet completed RCTs that demonstrate that GA-guided care, or “GA with management,”\(^6,7\) definitively improves outcomes of older patients with cancer, this care model has been shown to improve outcomes in older non-cancer populations, and thus are likely applicable to older patients with cancer. Delphi consensus panels of experts have established approaches for how to implement clinically GA-guided care processes in older adults with cancer.\(^6,8\) The GA-guided care processes framework offers a heuristic approach to translating information obtained through GA to treatment decisions and interventions, pending the publication of the results from ongoing research designed to more definitively identify the utility of GA-guided interventions to improve outcomes of older patients with cancer.

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Summary of Recommendations

**Recommendation 4**

Delphi consensus panels of geriatric oncology experts have established approaches for how to implement clinically GA-guided care processes in older adults with cancer.\(^6,8\)

- The Expert Panel recommends that clinicians apply the results of GA to develop an integrated and individualized plan for patients that informs treatment selection by helping to estimate risks for adverse outcomes (see Recommendation 2), and to identify non-oncologic problems (see Recommendation 1) that may be amenable to intervention.

- Based on clinical experience and the results of formal expert consensus studies,\(^6,8\) the Expert Panel suggests that clinicians take into account GA results when recommending treatment and that the information should be provided to patients and caregivers to guide decision making.\(^9\) In addition, clinicians should implement targeted, GA-guided interventions to manage non-oncologic problems.

- Consistent with the results of formal modified Delphi consensus studies, the Expert Panel supports the specific high-priority GA-guided interventions outlined in Table 2 in the guideline.

(Type: Informal consensus; Evidence quality: moderate; Strength of recommendation: moderate)
Patient and Clinician Communication

- Where data are limited and risk from treatment is high, older patients with advanced cancer and their caregivers must understand how cancer treatment (specifically chemotherapy) can affect quality of life in light of underlying health status.

- In this regard, the assessment of the older cancer patient's values and preferences is critical to informed treatment decision-making.

- Older adults with cancer and their caregivers are presented with complex information regarding the risks and benefits of chemotherapy for advanced cancer, but age-related concerns and outcomes are not usually discussed.

- Providing older cancer patients and their caregivers and oncologists with a summary of GA information may improve communication about age-related health concerns, patients' quality of life, and satisfaction with care, although there is as yet no evidence-based approach for the use of GA to improve communication during the chemotherapy decision-making process.
Health Disparities

- With respect to older persons with cancer, in particular, there is a clear need for research on interventions to optimize the health of older cancer patients, especially those who have medical problems other than cancer, or are in the “older-old” (70-80 years) and “oldest-old” (80+ years) subgroups.

- In addition, improved models of care need to be identified and implemented so that best practices interventions can be delivered to older adults.

- Older adults are less likely to be referred for expertise-centered consultation, diagnostic evaluation, and/or treatment than younger patients. This factor may negatively influence overall cancer outcomes for this population.

- Older patients are also particularly vulnerable to problems that interfere with access to care and outcomes such as socioeconomic status (due to being on fixed incomes and high costs of medical care).

- Older patients from underrepresented racial groups have even higher disparities in cancer care delivery which ultimately lead to poorer outcomes.
Additional Resources

More information, including a Data Supplement, a Methodology Supplement, slide sets, and clinical tools and resources, is available at www.asco.org/supportive-care-guidelines

Patient information is available at www.cancer.net
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References

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