

Malnutrition Risk Screening in Adult Oncology Outpatients



Malnutrition affects 25% to 75% of cancer patients, increasing treatment-related complications and hospital stays.¹⁻⁴ In the U.S., 90% of cancer treatments occur in outpatient centers, but malnutrition screening is lacking. Only 53% of cancer centers screen for malnutrition; just 35% use validated tools.⁵ The true rate of malnutrition in outpatient settings is not clear. Recommendations for malnutrition screening can better define malnutrition prevalence and patient impact. This practice tool uses the latest review ([Trujillo 2024](#)) to outline valid malnutrition screening tools for adult oncology patients in the ambulatory setting.⁶

Clinical Recommendations

- 1 All patients should undergo malnutrition screening using a validated tool with a nutrition-specific follow-up plan for those at risk.
- 2 Six tools—MNA, MST, MUST, NRS-2002, NUTRISCORE, and PG-SGA SF—with various cut-points demonstrated validity and are recommended in ambulatory settings.
- 3 All patients with cancer should undergo routine malnutrition risk screenings using a valid tool after diagnosis and throughout treatment. Risk identification calls for a comprehensive nutrition assessment by a trained nutrition professional, such as a registered dietitian nutritionist (RDN).

Characteristics of Recommended Screening Tools*

Screening Tool	Description
Malnutrition Screening Tool (MST)	<ul style="list-style-type: none"> • Uses a combination of questions, including “Have you lost weight recently without trying?” and “Have you been eating poorly because of a decreased appetite?” • Score >2 indicates patient is at risk for malnutrition and should undergo a more detailed nutrition assessment to identify malnutrition and determine the best form of nutrition support.³⁷
Malnutrition Universal Screening Tool (MUST)	<ul style="list-style-type: none"> • Scores BMI, unintentional weight loss, and food intake (acute disease-related effect inducing a phase of >5 days with no food intake). • Separates patients into low, medium, and high risk. • Each criterion rated 0–2; overall score ≥ 2 classified as being at nutrition risk.^{38, 39, 40}
Mini Nutritional Assessment (MNA)	<ul style="list-style-type: none"> • Includes 18 items in 4 categories (anthropometric, general assessment, nutrition assessment, and self-assessment). • Score ranges from 0 to 30; scores of 17–23.5 indicate risk for malnutrition, with <17 indicating malnutrition.^{38,40,41}

* Click screening tool to learn more.

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Characteristics of Recommended Screening Tools* (continued)

Screening Tool	Description
NUTRISCORE	<ul style="list-style-type: none"> Includes questions about unintentional weight loss, specific oncologic parameters such as tumor location and anticancer treatment. Score ranges from 0 to 11 points; Score ≥ 5 indicates at risk.¹⁶
Nutrition Risk Screening-2002 (NRS-2002)	<ul style="list-style-type: none"> Uses severity of disease and nutrition status to predict those who would benefit from nutrition support. 4 questions based on impairment of nutrition status (% weight loss, general condition, BMI, and recent food intake), disease severity, and age. Each category rated 0 (normal) to 3 (severe), age ≥ 70 years adds 1 point. Scores range from 0 to 7 points; patients with a score of ≥ 3 are classified as “at nutritional risk” and could benefit from nutrition support.^{38,40,44}
Patient-Generated Subjective Global Assessment (PG-SGA Short Form) (Also referred to as the abridged PG-SGA)	<ul style="list-style-type: none"> Eliminates the physical examination and disease/condition and metabolic demand assessment components of the PG-SGA but retains medical history, comprising weight, history, food intake, nutrition impact symptoms, and activities and function.¹⁴

Adapted from Table 2. Trujillo EB, Kadakia KC, Thomson C, et al. Malnutrition risk screening in adult oncology outpatients: an ASPEN systematic review and clinical recommendations. *J Parenter Enteral Nutr.* 2024; 48:874-894. References in this table can be found in this publication. * Click screening tool to learn more.

Studies Supporting Recommended Screening Tools for Ambulatory Cancer Patients

This systematic review of screening tools for ambulatory cancer patients considered studies using these recommended tools and outlined the study populations, the cancer site, stage, along with the treatment status and modality. The details of this review can be found in [Table 5](#) of the Trujillo review.⁶

Conclusion

Malnutrition screening is crucial for early identification of patients requiring nutrition intervention. There are several validated and reliable screening tools for malnutrition risk identification in the ambulatory oncology population. Implementation is inexpensive, requires minimal time, and can be efficient. Widespread standardization and implementation of malnutrition screening would serve to reduce the massive under-diagnosis of this common and debilitating issue.⁶

References

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