

Nutrition Assessment

A. Responsible team member

- Dietitian

B. Definition

Systematic approach to collect and interpret relevant data from patients and family caregivers, to determine a malnutrition diagnosis^[1] and severity of malnutrition

C. Data sources/tools²⁴

1. Results from initial patient screening
2. Standardized nutrition assessment tools such as the Subjective Global Assessment^[22] (see [Table 4: Standardized Nutrition Assessment Tools](#) for additional tools)
3. Patient/family caregiver interviews to obtain additional history
4. Medical or health records

D. Data to collect and record^[1]

1. Review data collected for factors that affect nutrition and health status, including:
 - a) Food and nutrition patient history
 - b) Anthropometric measurements
 - c) Biochemical data
 - d) Physical exam information
 - e) Patient history

E. Nutrition Assessment Steps

- Conduct nutrition assessment within 24 to 48 hours after malnutrition screening^[24]
- Review data that may impact nutrition or overall health status^[1]
- Consult with other members of the Care Team^[1]
- Conduct interview with patient and family caregiver
- Compare data to a predefined assessment scale on the tool to allow for a determination of what is a healthy score^[1]

F. Decision points for continuation of care^[1]

1. Patients who are not determined to be malnourished do not warrant a malnutrition care plan
2. Providers may need to consider patient/family decisions around seeking malnutrition treatment, particularly in end-of-life care

Best Practices

1. Nutrition assessment is recommended to be completed by a dietitian
2. Complete nutrition assessment for patients at risk of malnutrition within 24 to 48 hours after malnutrition screening^[2]
3. Consider completing a cognitive assessment during the assessment to inform whether a patient can remember and carry out aspects of the care plan
4. Use a standardized tool (see [Table 4](#) for a list of standardized tools) to conduct a nutrition assessment in a standardized way consistent with recommendations from the tool developer^[1]
5. Current clinical standards do not recommend the use of serum albumin and prealbumin levels to inform whether a patient is diagnosed as malnourished, noting the limited relevance of laboratory tests of acute-phase protein levels to indicate malnutrition^[25]
6. Consider the patient and their family caregivers as an integral part of the assessment process
7. Leverage EHR to standardize malnutrition documentation, facilitate clinical workflow, and build in advisory reminders
8. Utilize a standardized nutrition assessment template for consistent assessment and ease of incorporation into electronic health records
 - Mark the nutrition data in the EHR so it can easily be queried

Table 4: Standardized Nutrition Assessment Tools

Standardized Assessment Tool Name	Patient Population	Nutrition Assessment Parameters	Criteria for Risk of Malnutrition
Subjective Global Assessment (SGA) Validated	Surgery, Geriatric, Oncology, Renal	Includes medical history (weight, intake, GI symptoms, functional capacity) and physical examination	Categorizes patients as: <ul style="list-style-type: none"> • SGA A (well nourished) • SGA B (mild-moderate malnutrition) • SGA C (severe malnutrition)
Patient Generated Subjective Global Assessment (PG-SGA) Validated	Oncology, Renal, Stroke	Includes medical history (weight, intake, GI symptoms, functional capacity) and physical examination	Categorizes patients as: <ul style="list-style-type: none"> • SGA A (well nourished) • SGA B (mild-moderate malnutrition) • SGA C (severe malnutrition) <p>Also provides a numerical score for triaging. Global categories assessed as per SGA.</p>
Nutrition Focused Physical Exam (NFPE)^{viii} Not Validated	Adult, Elderly, Pediatric	<ul style="list-style-type: none"> • Assesses muscle wasting and fat loss • Evaluates the presence of edema or fluid accumulation • Identifies clinical signs of micronutrient deficiencies and toxicities • Measures functional status using handgrip strength dynamometer 	Used for comprehensive assessment especially for micronutrients as the SGA does not assess micronutrients. Incorporate the assessment of fat and muscle loss.

^{viii} A pre-recorded mini-session on how to perform the Nutrition Focused Physical Exam is available to MQii Learning Collaborative members on the [Member Portal](#).

SAMPLE PDSA Cycle: Nutrition Assessment

Project: Malnutrition Quality Improvement Initiative

Objective of this PDSA cycle: Test completion of nutrition assessment using a standardized tool for all admitted patients age 65+ years

PLAN:

Questions: 1. Will all patients age 65+ years identified as “at risk” for malnutrition following a malnutrition screening receive a nutrition assessment? 2. Will the diagnosis of malnutrition be properly documented in the electronic health record using structured data?

Predictions: All patients age 65+ years identified as “at risk” for malnutrition will receive a nutrition assessment and a diagnosis will be correctly documented using structured data

Plan for change: Who, what, when, where

Complete nutrition assessment using a standardized tool within a 24 to 48 hour period for all patients age 65+ years who are identified as “at risk” for malnutrition following a malnutrition screening

- Following malnutrition screening, dietitian or qualified clinician will assess all eligible patients for malnutrition using a validated nutrition assessment tool
- Plan for data collection: Who, what, when, where
- Dietitian or qualified clinician documents the results of the assessment (e.g. cause of malnutrition diagnosis) in the EHR
- Dietitian or qualified clinician documents any issues that arise with the assessment process and reasons for inability to complete the assessment for any patients

Plan for data collection: Who, what, when, where

- Part of the EHR documentation process includes a required field to document a diagnosis using structured data
- Plan for data collection: Who, what, when, where
- Nurse documents the results of the screening (i.e., “at risk” or “not at risk” for malnutrition) in the electronic health record (EHR)
- Nurse documents any issues that arise with the screening process and reasons for inability to complete the screening for any patients
- If EHR does not already generate automatic dietitian requests or reminders for malnutrition-risk diet orders based on screenings that have identified patients “at risk” for malnutrition, this may be something to request assistance with from an Informatics Representative to program in the EHR

DO:

Carry out the change: Collect data and begin analysis

- Conduct the assessment within a 24 to 48 hour period following the malnutrition screening through which patients identified as “at risk”
- Review EHR records for 5 eligible patients identified as “at risk” for malnutrition
- Record results of data collection (e.g., the dietitian or qualified clinician was able to complete assessment during a 24 to 48 hour period for all eligible patients but was unable to document specific elements of the assessment results in structured data fields)

STUDY:

Complete analysis of data

- **Debrief:** Discuss whether there are modifications the hospital can make to the EHR to support the documentation of the results of nutrition assessment. For example, could the EHR template be modified to include the most frequently used data fields needed to document assessment results. Additionally, consider whether all dietitians or clinicians have received appropriate training on the documentation of results.
- Verify predictions
- How closely did the results of this cycle match the prediction that was made earlier?
- Summarize any new knowledge gained by completing this cycle. For example, limitations in the EHR documentation template during nutrition assessment may prevent the documentation of screening results in a timely manner.

ACT:

Identify actions

- List actions to take as a result of this cycle
- Repeat this test for another 72 hours after providing modifications to the EHR template. Plan for the next cycle (adapt change, another test, implementation cycle): Run a second PDSA cycle for another 72 hour period.