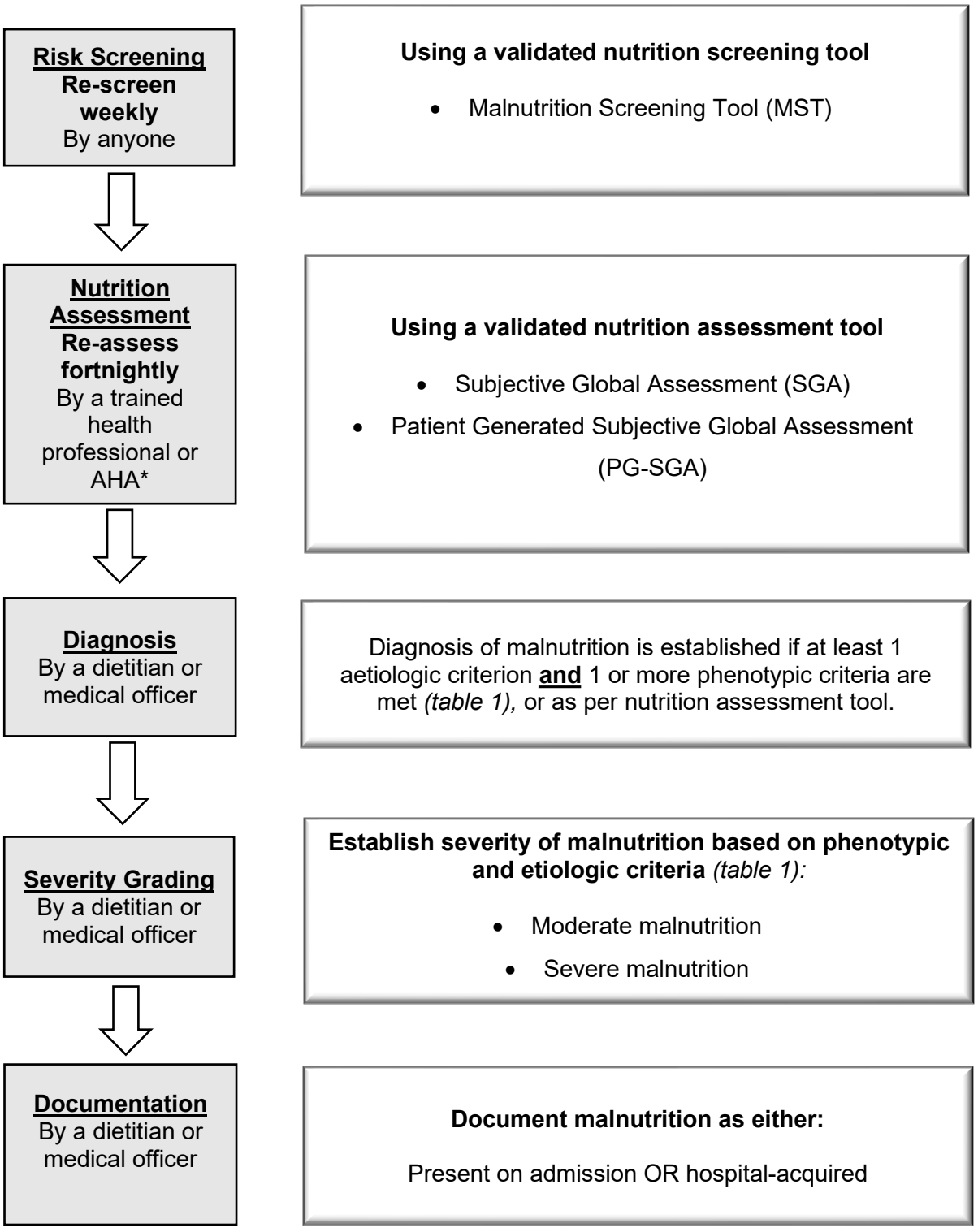
Identification and diagnosis of malnutrition in adults

This resource has been developed to support clinicians with the identification and diagnosis of malnutrition in adults across the continuum of care.

General notes on the identification and diagnosis of malnutrition in adults

- For the purpose of this document, malnutrition is used as a synonym of undernutrition, defined as “a state resulting from lack of intake or uptake of nutrition resulting in altered body composition (loss of fat and / or muscle mass), decreased physical and mental function, and impaired clinical outcomes due to disease” [1].
- Nutrition screening is the first step to identify those who require nutritional assessment. Factors to consider: Who will perform the nutrition screening? How can nutrition screening be incorporated into current procedures? What action will be taken for those screened at risk of malnutrition?
- Nutrition assessments should be performed using a validated nutrition assessment tool by a trained health professional (dietitian, medical officer or an allied health assistant (AHA) who has received clinic task instructions (CTI) training). If the nutrition assessment is conducted by an AHA, a diagnosis of malnutrition should be communicated to the treating dietitian or medical officer for interpretation and documentation in the patient’s medical notes.
- Nutrition assessments should be repeated fortnightly in the acute setting or when deemed appropriate in subacute care or in the community to monitor progress / changes in nutritional status [2, 3].
- In the absence of objective measures, assessment of loss of muscle mass and subcutaneous fat may be performed via a physical assessment using the Subjective Global Assessment (SGA) [4, 5].
- Diagnosis of malnutrition and its severity grading is confirmed using the Global Clinical Leadership Initiative on Malnutrition (GLIM) consensus statement [6].
- Currently there is no consensus on how to define or diagnose hospital-acquired malnutrition (HAM), however, The Australian Commission on Safety and Quality in Healthcare has defined hospital-acquired complications (HACs), as a complication that arises during a patient’s hospital stay and which is not present on admission [7]. With the use of the SGA, HAM may be diagnosed ≥ 14 days since admission [4].

Figure 1. Identification and Diagnosis of Malnutrition in Adults



Adapted from the GLIM diagnostic scheme for Screening, Assessment, diagnosis and grading severity in Malnutrition flowchart (2019).
*AHA: Allied health assistant who has received Clinical Task Instructions (CTI) training.

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Table 1. Diagnostic Criteria and Severity Grading for Malnutrition in Adults					
GLIM, 2019 [6]	**Diagnostic Criteria**	Must meet at least one aetiologic criterion plus one or more phenotypic criteria to be diagnosed with malnutrition:			
		Phenotypic Criteria **Weight loss (%)** >5% within the past 6 months, or >10% beyond 6 months **BMI (kg/m²)** <20 if <70 years old, or <22 if >70 years old *Asia:* <18.5 if <70 years old, or <20 if >70 years old **Muscle mass** Reduced muscle mass as assessed by a validated body composition technique (may use the SGA).		**Aetiologic Criteria** **Oral intake** ≤50% of EER > 1 week, or any reduction in for >2 weeks, or any chronic GI condition that adversely impacts food absorption or assimilation. **Inflammation[a]** Acute disease or injury with severe or moderate inflammation[c], or chronic disease with chronic or recurrent mild – moderate inflammation[d] [8].	
	Severity Grading	**Moderate Malnutrition[b]**		**Severe Malnutrition[b]**	
		Weight loss	5-10% within past 6 months or 10-20% >6 months	Weight loss	10% within past 6 months or >20% > 6 months
		BMI (kg/m2)	<20 if <70 years old or <22 if ≥70 years old	BMI (kg/m2)	<18.5 if < 70 years old or <20 if ≥70 years old
		Muscle mass	Mild – Moderate deficit as per validated measure (may use the SGA)	Muscle mass	Severe deficit as per validated measure (may use the SGA)

GLIM: Global Clinical Leadership Initiative on Malnutrition composed by a leadership committee from ASPEN (American Society of Parenteral and Enteral Nutrition), ESPEN (European Society for Clinical Nutrition and Metabolism), FELANPE (Latina American Federation of Nutritional Therapy, Clinical Nutrition and Metabolism) and PENSA (the Parenteral and Enteral Nutrition Society of Asia). BMI: Body mass index. EER: estimated energy requirements. GI: gastrointestinal. [a] C-reactive protein may be used as a laboratory measure of inflammation [8]. [b] requires at least one phenotypic criterion. [c] Moderate to severe inflammation = CRP values of ≥ 30 mg/L[8]. [d] Mild to moderate inflammation = CRP values of 5.0mg/L to 30mg/L [9].

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