Table 3. Phenotypic and Etiologic Criteria for the Diagnosis of Malnutrition.

Phenotypic Criteria[a]			Etiologic Criteria[a]	
Weight Loss (%)	Low Body Mass Index (kg/m^2)	Reduced Muscle Mass[b]	Reduced Food Intake or Assimilation[c,d]	Inflammation[e,f,g]
>5% within past 6 months, or >10% beyond 6 months	<20 if <70 years, or <22 if >70 years Asia: <18.5 if <70 years, or <20 if >70 years	Reduced by validated body composition measuring techniques[b]	≤50% of ER > 1 week, or any reduction for >2 weeks, or any chronic GI condition that adversely impacts food assimilation or absorption[c,d]	Acute disease/injury[e,g] or chronic disease-related[f,g]

ER, energy requirements; GI, gastrointestinal.

[a]Requires at least 1 phenotypic criterion and 1 etiologic criterion for diagnosis of malnutrition.

[b]For example, fat-free mass index (kg/m^2)) by dual-energy absorptiometry or corresponding standards using other body composition methods such as bioelectrical impedance analysis, computed tomography, or magnetic resonance imaging. When not available or by regional preference, physical examination or standard anthropometric measures such as mid-arm muscle or calf circumferences may be used. Thresholds for reduced muscle mass need to be adapted to race (Asia). Functional assessments such as hand-grip strength may be considered as a supportive measure.

[c]Consider gastrointestinal symptoms as supportive indicators that can impair food intake or absorption (e.g., dysphagia, nausea, vomiting, diarrhea, constipation, or abdominal pain). Use clinical judgement to discern severity based on the degree to which intake or absorption is impaired. Symptom intensity, frequency, and duration should be noted.

[d]Reduced assimilation of food/nutrients is associated with malabsorptive disorders such as short bowel syndrome, pancreatic insufficiency, and after bariatric surgery. It is also associated with disorders such as esophageal strictures, gastroparesis, and intestinal pseudo-obstruction. Malabsorption is a clinical diagnosis manifest as chronic diarrhea or steatorrhea. Malabsorption in those with ostomies is evidenced by elevated volumes of output. Use clinical judgement or additional evaluation to discern severity based on frequency, duration, and quantitation of fecal fat and/or volume of losses.

[e]Acute disease-/injury-related. Severe inflammation is likely to be associated with major infection, burns, trauma, or closed head injury. Other acute disease-/injury-related conditions are likely to be associated with mild to moderate inflammation.

[f]Chronic disease-related. Severe inflammation is not generally associated with chronic disease conditions. Chronic or recurrent mild to moderate inflammation is likely to be associated with malignant disease, chronic obstructive pulmonary disease, congestive heart failure, chronic renal disease, or any disease with chronic or recurrent Inflammation. Note that transient inflammation of a mild degree does not meet the threshold for this etiologic criterion.

[g]C-reactive protein may be used as a supportive laboratory measure.