

Adult Malnutrition: Frequently Asked Questions

Introduction:

These FAQs for Adult Malnutrition were generated in response to direct queries regarding translating to practice the 2012 Adult Malnutrition Consensus Statement and Adult Nutrition Assessment Tutorial articles published by the Academy and A.S.P.E.N as cited here: [J Acad Nutr Diet. 2012;112\(5\):730-738](#); [JPEN J Parenter Enteral Nutr. 2012;36\(3\):275-283](#); [JPEN J Parenter Enteral Nutr. 2012;36\(3\):267-274](#).

Disclaimer: The 2012 Adult Malnutrition Consensus Statement is not a definitive statement of the diagnostic characteristics of adult malnutrition, but instead represents a paradigm shift in the identification of Adult Malnutrition. Presently a large-scale study is underway to validate the diagnostic characteristics of adult malnutrition identified in the 2012 Consensus Statement. Until such evidence is available, the translation of these characteristics is based upon expert opinion, and is subject to change due to evidence generated from research studies, including the Academy/A.S.P.E.N. Malnutrition Validation study.

Suggested references are provided for those questions regarding general nutrition concepts included in the Adult Malnutrition characteristics. It is hoped that the responses and references provided in the FAQs will assist you to translate these characteristics in your practice settings.

For questions directly related to one or more of the published characteristics, a direct response will be provided. For other questions, such as how to measure a specific characteristic or additional information related to alternative assessment or intervention options, referral to peer reviewed literature will be provided. The individual voicing the inquiry then has the option to review examples of relevant literature and the choice to pursue the course of action that is the best fit for their specific practice environment and population served.

A. General

1. How does one diagnose adult malnutrition? [Please refer to disclaimer.](#)

The diagnosis and treatment of Adult Malnutrition is based upon:

- 1) clinical skill/judgment,
- 2) knowledge of the unique needs of the individual patient and populations,
- 3) evidence-based practice recommendations,
- 4) clinical standards, and
- 5) available resources (human, financial, equipment, supplies etc.).

Policies and procedures to address the malnourished adult are best developed with input from the interdisciplinary health care team.

B. Inflammation

1. What are practical biomarkers to assess for the presence of inflammation? [Please refer to disclaimer.](#)

Markers reflecting inflammation are those biomarkers or clinical data points altered during the inflammatory response. During the inflammatory response, synthesis of

visceral proteins such as albumin, prealbumin and transferrin is decreased favoring the synthesis of “acute phase proteins” including C-reactive protein, fibrinogen, procalcitonin, etc. Of these, C-reactive protein is the most likely to be readily available for evaluation. Reduced levels of visceral proteins can be viewed as potential markers of inflammation as the synthesis of these will fall in an inflammatory state. Clinical manifestations during the inflammatory response include, among others, elevated or depressed white blood cell count, significant presence of immature cells (neutrophils); elevated temperature, and hyperglycemia. As described in the Consensus Statement (*J Acad Nutr Diet* 2012;112(5):730-738), and in the tutorial by Jensen G, Hsiao PY, Wheeler D. (Adult nutrition assessment tutorial. *JPEN J Parenter Enteral Nutr* 2102;36(3):267-275), **“No single clinical lab parameter can be recommended as an indicator of comprehensive nutritional status.”** Table 2 of the tutorial provides examples of medical/surgical conditions and diseases that are typically associated with an inflammatory response.

All of the serum proteins suffer sensitivity/specificity limitations and while they may show “promise” in terms of utility as inflammatory markers, further studies are needed to determine which serum proteins are appropriate inflammatory markers in/for which conditions. At this time, therefore, none are specifically recommended because they are all non-specific. Registered dietitian nutritionists (RDNs) need to work closely with physicians who are ultimately responsible for the determination and categorization of level of disease acuity; a review of the patient’s reason for admission, last hospitalization, past medical history and review of systems can often provide valuable clues as to whether the person is acutely or chronically ill.

2. Can C-Reactive protein be used to establish the level of inflammation (mild or severe) in order to determine a patient’s malnutrition etiology category? [Please refer to disclaimer.](#)

C-reactive protein is frequently elevated during an inflammatory process although its specificity/sensitivity has not been validated. It is important to evaluate this acute phase protein in the context of the patient’s overall clinical picture as outlined above (Pepys MB, Hirschfield GM. C-reactive protein: a critical update. *J. Clin. Invest.* 2003;111(12): 1805–12)

C. Functional Assessment

1. How do you recommend measuring functional performance?

Both handgrip strength and the Short Physical Performance Battery (SPPB) are two validated tools for measuring physical performance. Handgrip strength protocols and normative standards are device dependent and are packaged with/downloadable from the device manufacturer. For further information about performing hand-grip strength measurements, functional assessment, and SPPB, please refer to the following references:

Roberts HC, et al. A review of the measurement of grip strength in clinical and epidemiological studies: towards a standardized approach. *Age and Ageing*. 2011; 40:423-429.

Mijnarends DM, et al. Validity and reliability of tools to measure muscle mass, strength, and physical performance in community-dwelling older people: a systematic review. *JAMDA* 2013; 14:170-178.

Guralnik JM, Simonsick EM, Ferrucci L, Glynn RJ, Berkman LF, Blazer DG, Scherr PA, Wallace RB. A short physical performance battery assessing lower extremity function: association with self-reported disability and prediction of mortality and nursing home admission. *J Gerontol Med Sci* 1994; 49(2):M85-M94

D. Use of Biomarkers

1. Why is it no longer recommended to use serum albumin and prealbumin as indicators of malnutrition? [Please refer to disclaimer.](#)

Albumin and prealbumin are very poor indicators of nutritional status. They lack sensitivity, specificity, and reliability. The majority of patients in acute and chronic care settings have underlying inflammatory conditions; disease or injury, subclinical or not. Inflammatory status is often not easy to appreciate. In the acute critical setting inflammatory response is almost always manifest. These proteins can be useful when one is certain that inflammation is not present and one is delivering adequate nutrition support, because in that setting you would expect prealbumin and albumin to return to normal levels. Prealbumin would recover more quickly with its shorter half-life.

Further information on the use of albumin and prealbumin as indicators of prolonged protein-energy restriction is available in the Academy Evidence Analysis Library: <http://www.andeal.org/topic.cfm?cat=4302>

E. Coding and Documentation

1. How do you apply the Adult Malnutrition Consensus definitions with the current ICD-9 codes? [Please refer to disclaimer.](#)

Severe malnutrition in adults associated with any etiology type – acute disease, chronic disease, starvation related - correlates with ICD-9 code 262 (ICD-10 code E43) and non-severe malnutrition in adults similarly associated with any etiology type correlates with ICD-9 code 263.0 (ICD-10 code E44).

2. When will the proposed Academy/A.S.P.E.N. Adult Malnutrition Consensus definitions be incorporated into ICD nomenclature as per NCHS/CMS (National Center for Vital and Health Statistics/Centers for Medicare and Medicaid Services)? [Please refer to disclaimer.](#)

At this point in time, no changes have been approved to the nomenclatures for 262 (severe Malnutrition) and 263 (Other and unspecified protein-calorie malnutrition). As

the NCHS began the US transition from ICD-9 to ICD-10, they announced that the opportunity to make changes to the nomenclature of existing ICD codes would not be available again until their 2014 public hearings. The Academy and A.S.P.E.N. will continue to pursue ICD-10 malnutrition coding nomenclature revision as this moratorium is lifted and as the proposed descriptors of malnutrition become more routinely used as descriptors of malnutrition in clinical settings.

The National Center for Vital and Health Statistics (NCHS) ICD-9/10 Coordination and Maintenance Committee received multiple requests to clarify the nomenclature and use of the existing malnutrition diagnosis codes and asked the Academy and A.S.P.E.N. to comment. At the NCHS's September 2010 and March 2011 public hearings the Academy and A.S.P.E.N. submitted the following recommendations for nomenclature clarification/revision:

- Starvation Related Malnutrition (none to minimal inflammatory response)
 - Environmental or social/behavioral circumstances
- Chronic Disease or Condition Related Malnutrition (mild to moderate inflammatory response)
- Acute Disease or Injury Related Malnutrition (severe inflammatory response)

The suggested revisions were an attempt to provide a more clinically relevant nomenclature for malnutrition that links the nature of the underlying disease process and disease acuity with the presence or absence of the inflammatory response. The presence/absence of inflammation significantly affects the complexity of the treatment protocol, duration of therapy, length of stay, likelihood of positive response and cost. NCHS had concerns that the proposed terminology represented a "pre-coordination coding approach" with malnutrition automatically linked to a chronic or acute disease process and that the specific "disease(s)" that "caused" the malnutrition might not be identified. NCHS understands that many times it is not clinically possible or necessary to identify a "specific disease entity(s)" as a contributor to malnutrition, but that is their current process.

The NCHS decision regarding the proposed revisions to the existing malnutrition code definition(s) following the 2011 presentation was as follows:

- No change at this time to the nomenclatures for 262 (severe Malnutrition) and 263 (Other and unspecified protein-calorie malnutrition)
- As the NCHS began the US transition from ICD-9 to ICD-10, they announced that the opportunity to make changes to the nomenclature of existing ICD codes would not be available again until their 2015 public hearings.
- The Academy and A.S.P.E.N. will continue to pursue ICD-10 malnutrition coding nomenclature revision as the proposed descriptors of malnutrition become more routinely used as descriptors of malnutrition in clinical settings. We can do this by using existing codes (i.e. 262 or 263) but by describing the malnutrition observed using "terminology" similar to the coding descriptors proposed by the Academy/A.S.P.E.N. As the NCHS and coding professionals become more

accustomed to this terminology, they may be more accepting of its use as code descriptors.

3. According to various presentations, moderate malnutrition 263.0 is a CC. According to coding guidelines a 4th digit (.2-.9) is required. Please comment. [Please refer to disclaimer.](#)

As a point of clarification on Co-Morbid Condition/Complication or “CC’s” - Certain pre-defined secondary diagnoses that existed upon admission are called *co-morbid conditions* while conditions that transpire and are diagnosed during the patient stay are called *complications*. Collectively, co-morbid conditions and complications are referred to as “CC’s”. CC’s apply to federal reimbursement or MS- DRG coding and there are three levels of severity based on secondary diagnosis codes:

- MCC:** Major Complication/Comorbidity; highest level of severity
- CC:** Complication/Comorbidity; next level of severity
- Non-CC:** Non-complication/Comorbidity; do not significantly affect severity of illness

The ICD-9 Code for Moderate Protein and Energy Deficiency is 263.0 – the fourth digit is necessary to identify the type of malnutrition. So, for example, 263.1 is Mild Protein and Energy Deficiency, 263.2 is Arrested Development following Protein Calorie Malnutrition (most often used in pediatric populations). Currently, the Academy/A.S.P.E.N. adult characteristics define only 263.0 Moderate Protein and Energy Deficiency or Non-Severe Malnutrition. The Academy/A.S.P.E.N. work groups did not find enough evidence, at this time, to specify characteristics for other codes in the 260 family. Many institutions have independently developed characteristics for 263.8 (Other Protein Calorie Malnutrition) and 263.9 (Unspecified Protein Calorie Malnutrition). Most often these characteristics have a great deal of overlap and are confusing. Using the Academy/A.S.P.E.N. adult characteristics, most institutions find that these patients now fall into either ICD-9 code 262 or 263.0.

4. Have the Consensus statement recommendations been revised to distinguish between mild and moderate malnutrition now that mild malnutrition has been designated as a complication/co-morbidity (“CC”) by CMS? [Please refer to disclaimer.](#)

Effective October, 2012, Mild Protein and Energy Deficiency, is recognized as a “CC” for those patients reimbursed by Medicare. Please reference the information above for an explanation of “CC”.

The Academy/A.S.P.E.N. Adult Malnutrition Workgroup noted the following in their Consensus Statement: ***“There is insufficient evidence regarding their application in clinical settings to allow for further distinction to be made between mild and moderate forms of malnutrition at this time.”***

In terms of work related to defining 263.1, the Academy/A.S.P.E.N. launched the Adult Malnutrition Feasibility and Validity Testing Workgroup. This group has designed and

pilot tested a protocol for data collection utilizing the Dietetic Practice Based Research Network (DBRN) and ANDHII (Academy of Nutrition and Dietetics Health Informatics Infrastructure). This study will help determine if the current recommended characteristics are valid and potentially ascertain if they can distinguish between mild and moderate malnutrition. If you are interested in participating in the validity testing of the standardized adult characteristics of malnutrition, please contact Lindsey Field, MS, RDN, LD at lfield@eatright.org.

5. Does the provider need to document malnutrition in the History & Physical or can it be in the progress notes say 24 hours following admission? [Please refer to disclaimer.](#)

The Licensed Independent Practitioner (Medical Doctor, Nurse Practitioner, Physician's Assistant) must document malnutrition in the medical record during the episode of care and must also demonstrate a plan of care for the condition. This documentation may reside in any documentation completed and there is no time frame specified for this documentation. Only documentation provided by the Licensed Independent Practitioner can be "coded" or correlated with ICD-9 codes.

6. Are physicians required to document the characteristics of malnutrition along with the type of malnutrition or is the registered dietitian nutritionist's (RDN's) documentation adequate? [Please refer to disclaimer.](#)

The documentation of the Licensed Independent Practitioner or LIP (MD, NP and/or PA) is essential for the translation of medical record document into the ICD-9 codes. The LIP documents the type or severity of malnutrition and should also reference the plan of care. The physician may use the RDN's documentation of characteristics, if he/she so desires, to support the ICD-9 physician diagnosis.

7. Are registered dietitian nutritionists (RDNs) involved in the care of the patient considered to be leading the MD when they document and advise on the identification of malnutrition? [Please refer to disclaimer.](#)

RDNs involved in the care of the patient are not considered to be leading the MD when they advise on the identification of malnutrition. This is the role of the in-patient RDN.

From: AHIMA American Health Information Management Association AHIMA.org
Critical question– Was the person posing the query involved in direct face-to face patient care, prompting a "clinical discussion" directly related to patient care?* And if the answer is "no," then it is an MD query which might be "leading."

Shown below is the CONTEXT for the MD Query process. All of the information on leading is for non-health care providers or those not directly involved in the patient care.

The guidelines state: A joint effort between the health care provider and the coding professional is essential to achieve complete and accurate documentation, code assignment, and reporting of diagnoses and procedures. These guidelines have been

developed to assist both the healthcare provider and the coding professional in identifying those diagnoses and procedures that are to be reported. The importance of consistent, complete documentation in the medical record cannot be overemphasized. Without such documentation accurate coding cannot be achieved. The entire record should be reviewed to determine the specific reason for the encounter and the conditions treated. **MDs not involved in the patient's care can be found responsible for leading.** The query process from Documentation Improvement is directed toward the RDN and/or the MD.

8. For end of life care, should malnutrition be identified, documented and coded? [Please refer to disclaimer.](#)

Yes the patient's provider should document the clinical status of the patient no matter what the determined/documentated level of care. If a patient is severely malnourished and the plan for this patient is comfort care, liberalizing the diet and providing preferred food may be the nutrition care plan.

F. For Coding and Coverage

1. Can coders use RN documentation for coding BMI? CMS allows registered dietitian nutritionists (RDNs) to measure height and weight, to calculate BMI and to determine and provide the ICD-9 code for BMI (see below). [Please refer to disclaimer.](#)

This is one area of exception where documentation other than the Licensed Independent Practitioner can be used for medical record coding. For BMI, only RDN documentation – not RN - can be used for medical record coding.

CODING CLINIC, 4TH QUARTER, 2008

16. Documentation for BMI and Pressure Ulcer Stages

For the Body Mass Index (BMI) and pressure ulcer stage codes, code assignment may be based on medical record documentation from clinicians who are not the patient's provider (i.e., physician or other qualified healthcare practitioner legally accountable for establishing the patient's diagnosis), since this information is typically documented by other clinicians involved in the care of the patient (e.g., a dietitian often documents the BMI and nurses often document the pressure ulcer stages). However, the associated diagnosis (such as overweight, obesity, or pressure ulcer) must be documented by the patient's provider. If there is conflicting medical record documentation, either from the same clinician or different clinicians, the patient's attending provider should be queried for clarification.

The RN is not the healthcare provider responsible for documenting BMI – only the RDN (and, of course, MD, NP, PA). While "nurses" are mentioned in the above paragraph as "other qualified healthcare practitioners," RNs document pressure ulcers, and RDNs document BMI.

G. Other

1. How would you address an acute disease coupled with a chronic disease (e.g., when a nursing home patient is admitted with an acute illness.)? [Please refer to disclaimer.](#)

The current ICD-9 code families - 262 and 263 - do not distinguish between malnutrition associated with acute and/or chronic disease processes. So you would determine whether the patient has "other, severe protein calorie malnutrition" (262) or has one of the conditions listed in "other and unspecified malnutrition" (263 family of codes) and would also code the other acute/chronic diseases/conditions for which the patient was admitted.

The 6 criteria that were presented are for use in the diagnosis of all types of adult malnutrition - from that associated with acute and/or chronic disease to that associated with conditions/circumstances associated with semi-starvation - i.e. lack of access to food, unable/unwilling to eat, severe depression, etc. So weight loss, inadequate intake, loss of muscle, loss of fat, localized or generalized fluid accumulation and/or declines in functional status apply to starvation-associated malnutrition also. We do not recommend lab assessment (serum proteins) to diagnose malnutrition. We do not recommend use of a disease/condition to diagnose malnutrition. The diseases/conditions were provided as examples of "high risk" populations that may be susceptible to the development of malnutrition.

Please review the Academy on-line Nutrition Care Manual Nutrition Assessment Section. The chart of the malnutrition characteristics and how they are to be used is provided there.