

Implementation of Malnutrition Coding: A Success Story

Jennifer S. Lowry, RD, LD Jill Johnston, MS, RD, LD Michelle Hoppman, RDN, LRD, CDE

Abstract

How to identify and obtain a medical diagnosis for malnutrition is a common conversation among hospital clinical documentation improvement specialists and clinical nutrition teams. Identifying malnutrition during nutrition assessment for coding purposes using clinically based criteria is a relatively new process for registered dietitian nutritionists (RDNs). This article discusses the process by which the clinical RDNs covering the adult population at WVU Medicine learned how to improve screening, assessment, intervention, and documentation for patient care to support the diagnosis of malnutrition. We discuss the team members, criteria, and methods for communicating this information to the appropriate people. Based on our documentation of malnutrition and escalation in its diagnosis, we have created an increase in overall billing for malnutrition that has, in turn, had a substantial effect on reimbursement for our facility. In addition, RDNs have found the experience valuable in developing their skills and improving their impact on patients at nutritional risk.

Introduction

Both RDNs and physicians are aware of the importance of malnutrition and its effects on hospitalized patients. Malnutrition is present in 20% to 50% of hospitalized patients (1). Despite simple, validated screening tools, malnutrition tends to be underdiagnosed. More than 90% of elderly patients transitioning from an acute-care hospital to a subacute-care facility are either malnourished or at risk for malnutrition (1). Malnutrition has been associated with an increased risk of nosocomial infections, worsened functional status at discharge, and higher mortality rates as well as longer lengths of stay and higher hospital costs (1). More resources and care may be required for the patient presenting

with malnutrition, which can increase hospital costs. Proper identification, documentation, and diagnosis of malnutrition can enhance the ability of the interdisciplinary team to improve overall patient outcomes and provide clearer documentation of the problem. This, in turn, assists clinical documentation improvement teams in obtaining appropriate reimbursement for the more specific diagnosis-related group (DRG) that reflects the patient's severity of illness.

RDNs have always been aware of the impact of malnutrition on the hospitalized patient, but they may not have realized the importance of nutrition assessment and intervention on hospital reimbursement. Such assessment and intervention could procure further revenue that can be used to improve patient outcomes and support overall patient care. Documentation of malnutrition, clinical indicators, and necessary intervention or treatment can ensure the integrity of the patient medical record. The documentation not only reflects the severity of illness but is needed to support a diagnosis of malnutrition by a physician. Without the three components of problem, clinical indicator, and intervention/treatment, the malnutrition diagnosis can neither be supported by hospital coding teams nor coded as a comorbidity, resulting in a missed opportunity for potential increased insurance reimbursement.

The art in hospital billing and coding is correct determination and assignment of proper codes to ensure the accuracy of the International Classification of Diseases (ICD-9 and the newly released ICD-10) diagnosis code. An improper code could result in the claim being rejected by the insurance payer, triggering a time- and labor-intensive process of follow-up and claim resubmission.

Most DRGs have three levels: major complication/comorbidity, regular complication/comorbidity, or neither. Proper documentation and diagnosis of complications in the electronic medical record (EMR) supports the increased length of stay and additional cost of services that may be required. The diagnoses related to malnutrition may move the DRG into a different category, thus increasing reimbursement. However, the ICD-9/ICD-10 codes must be present to qualify for such reimbursement.

Nutrition-related ICD-9 and ICD-10 codes are shown in Table 1 (2,3). Nutrition interventions can produce positive results that improve the quality of patient care and reduce overall costs. When nutrition interventions occur during a hospital stay, research has shown a 28% reduction in avoidable readmissions (4), a 2-day reduction in average length of stay (5,6), a 25% reduction in pressure ulcer incidence (7), and a 14% reduction in overall complications (e.g., infections, anemia)(8).

Malnutrition Program: Getting Started

The first step in our journey was to determine the prevalence of malnutrition at WVU Medicine. The Clinical RDN Manager spoke with decision support and the finance department to generate a report that included data on the malnutrition ICD-9 codes diagnosed during the previous year (2009-2010) and how often a DRG was affected. This information was then evaluated to determine the potential for increased reimbursement. Administrative teams wanted to understand how focusing on the documentation of a malnutrition diagnosis could offer a legitimate and positive financial benefit and optimize patient care. The report estimated that 4.4% of the hospital population for the previous year at WVU Medicine had some documented degree of malnutrition, offering the potential for improving

Table 1. ICD-9 and ICD-10 Codes Related to Nutrition (2)

ICD-9 Code/Language	ICD-10 Code/Language	Type of Comorbidity Code Associated With ICD code
2260 Kwashiorkor*	E40 Kwashiorkor*	MCC
261 Nutritional Marasmus*	E41 Nutritional marasmus*	MCC
262 Other Severe Protein-Calorie Malnutrition	E43 Unspecified severe protein-calorie malnutrition	MCC
263.0 Malnutrition of Moderate Degree	E44.0 Moderate protein-calorie malnutrition	CC
263.1 Malnutrition of Mild Degree	E44.1 Mild protein-calorie malnutrition	CC
263.8 Other Protein Calorie Malnutrition	No ICD-10 code	CC
263.9 Unspecified Malnutrition	E46 Unspecified protein-calorie malnutrition	CC

MCC=major complications/comorbidity, CC=complication/comorbidity

*Not typically seen in first-world countries.

Table 2. WVU Medicine Characteristics of Nonsevere, Moderate Malnutrition, Unspecified* (ICD-9 Code 263.9/ICD-10 Code E46)

	Acute Illness or Injury	Chronic Illness	Social/Environmental
Energy Intake	<75% of EEE >7 days	<75% of EEE >1 month	<75% of EEE >3 months
Weight Loss	1%-2% 1 week 5% 1 month 7.5% 3 months	5% 1 month 7.5% 3 months 10% 6 months 20% 1 year	>5% 1 month >7.5% 3 months >10% 6 months >20% 1 year
Body Fat Loss	Mild depletion (1+)	Mild depletion (1-2+)	Mild depletion (1-2+)
Muscle Mass	Mild depletion (1+)	Mild depletion (1-2+)	Mild depletion (1-2+)
Fluid	Mild (+2)	Mild (+2)	Mild (+2)
Grip Strength	N/A	N/A	N/A
Pressure Ulcer	Stage II	Stage II	Stage II
Nonhealing Wound	Present	Present	Present
Other Factors **	BMI <18.5/BMI <23.5 (age 65+) Anorexia nervosa, benign esophageal stricture, organ failure, malignancies, rheumatoid arthritis, Crohn's disease, colitis, malabsorptive diseases, DM, CHF, COPD Major infections such as sepsis, pneumonia, peritonitis, wound infections, trauma, closed head injury, acute lung injury, ARDS, or major surgeries	BMI <18.5/BMI <23.5 (age 65+) Anorexia nervosa, benign esophageal stricture, organ failure, malignancies, rheumatoid arthritis, Crohn's disease, colitis, malabsorptive diseases, DM, CHF, COPD Major infections such as sepsis, pneumonia, peritonitis, wound infections, trauma, closed head injury, acute lung injury, ARDS, or major surgeries	BMI <18.5/BMI <23.5 (age 65+) Anorexia nervosa, benign esophageal stricture, organ failure, malignancies, rheumatoid arthritis, Crohn's disease, colitis, malabsorptive diseases, DM, CHF, COPD Major infections such as sepsis, pneumonia, peritonitis, wound infections, trauma, closed head injury, acute lung injury, ARDS, or major surgeries

*A minimum of two characteristics must be present. At least two characteristics must come from energy intake, weight loss, body fat, muscle mass, or fluid.

ARDS=acute respiratory distress syndrome, BMI=body mass index, CHF=congestive heart failure, COPD=chronic obstructive pulmonary disease, DM=diabetes mellitus, EEE=estimated energy expenditure

** Other Factors: per the Academy of Nutrition and Dietetics. *International Dietetics and Nutrition Terminology Reference Manual under Malnutrition (NI-5.2)*. 2011 ADA Evidence Library.

the identification, treatment, and reimbursement of malnutrition. Through the process of improving the identification and diagnosis of malnutrition, RDNs could possibly have an impact on patient length of stay and readmission rate as well as overall hospital morbidity and mortality rates.

A proposal was submitted to hospital administration for approval to have a consultant company work with RDNs at WVU Medicine to implement a malnutrition program. The proposal was accepted, and a chart audit was completed to determine: 1) how malnutrition was being assessed and documented by RDNs and physicians and 2) if the RDNs and physicians were in agreement on how they assessed and eventually diagnosed malnutrition. The audit revealed that malnutrition was being identified and diagnosed using a variety of definitions and techniques throughout the hospital.

The clinical RDNs initially believed that they were composing relatively thorough notes, with documentation to an EMR template that included anthropometrics, medications, laboratory results, estimated needs, and other items. However, findings by the consultant company during the chart audits identified improvements that could be made in documentation. Chart reviews in May 2010 were composed of 150 charts of nonpregnant adults older than 18 years of age. The sample included 50 patients who had received nutrition consultations, 50 high-risk

notifications (notices from nursing screens within 24 hours of admission), 25 with malnutrition ICD-9 codes on file, and 25 with none of these specific findings. Fourteen of the charts could have been moved into a higher reimbursement category if malnutrition had been documented appropriately. For each case, the average additional reimbursement was estimated at \$10,000 for a total potential increased reimbursement of \$140,000. On 12 of the 14 charts, RDNs had been triggered to see the patient based on a consultation request or high-risk notification, which constituted 8% of the charts reviewed. Based on this review, reviewers concluded that over the previous 9 months in 2010, if 8% of the almost 2,500 patients with consultation or high-risk notifications in their charts had received proper malnutrition documentation, additional money reimbursed to the hospital could have potentially been in the millions. (Please note that these numbers may vary based on the acuity of the facility.)

Results of the chart review were shared with various members of the hospital administration team. Approval was given to proceed with training to improve assessment, documentation of malnutrition, and communication with physicians about malnutrition to improve documentation and patient care.

Hospital RDNs were unaware of other facilities doing similar documentation and expressed

some concerns about the potential increased time commitment to their already heavy workload. The initial primary goal was to ensure consistent identification, assessment, and diagnosis of malnutrition among the interdisciplinary team to reduce the risk of insurance fraud and to have the most beneficial impact on patient outcomes. The treatment plans would vary with each patient because the overall plan was to evaluate interventions inside and outside of the hospital and to encourage the team to embrace a more global picture of patient care. Despite some questions about how this process actually could help the hospital financially, the department proceeded with the project because the results from the chart review were too impressive to ignore.

An Interdisciplinary Approach

The success of the program hinged on an interdisciplinary approach because the final goal was an impact on reimbursement and patient care, necessitating an understanding of the entire picture. Therefore, RDNs collaborated with hospital health information management and coding departments to learn about DRGs and how they had the potential to change with different comorbidities. In addition to the clinical nutrition manager and the RDNs, other members of the interdisciplinary team included physicians (hospitalists and specialists), finance specialists, the director of food and nutrition, information

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technology (IT) experts, EMR build team, nurse managers, the vice president of quality, and the vice president of medical staff affairs.

The clinical RDN team recruited five physician champions and held meetings to explain the malnutrition program and the rationale for the new process. They were impressed with the results of the chart reviews and the potential it offered for the hospital, not only in reimbursement but for strengthening the identification of malnutrition, which had the potential to decrease the incidence of hospital-acquired infections, falls, and hospital-acquired wounds as well as the number of queries to physicians. The consultant company presented the researched guidelines for identifying malnutrition to the champion physician team and eventually received approval through the medical executive committee to adopt the use of these guidelines to assess and diagnose malnutrition. In 2011, the RDNs reviewed the best practice guidelines from the American Society for Parenteral and Enteral Nutrition (A.S.P.E.N.) and the Academy of Nutrition and Dietetics malnutrition characteristics (9), and in 2012, we adapted these characteristics into our policy for assessing and diagnosing malnutrition (Tables 2 and 3).

Understanding that physicians ultimately provide final documentation and make the diagnosis as

appropriate, determining the best route to communicate our findings was important. Among the options reviewed were sending a message to the physician's inbox, similar to email through the EMR, but these inboxes are already inundated with messages, which increased the chances that the note would be overlooked. The final decision was for the RDN to document the nutrition assessment and level of malnutrition identified in our PES (Problem, Etiology, Signs and Symptoms) statements (as the Nutrition Diagnosis, part of the Nutrition Care Process) that had already been in place at WVU Medicine for several years. New documentation templates were developed with the EMR build team for a "Malnutrition Note," later revised to the "Nutrition Progress Note." The note includes height, weight, body mass index (BMI), malnutrition assessment clinical indicators, PES statement, interventions or recommendations, and all possible malnutrition diagnosis options. In order for physicians to review and sign the RDN Nutrition Progress Notes, a requirement for billing purposes, the new notes are labeled as Progress Notes, which must have a physician's signature. The note is then sent to the EMR in-basket co-signature folder for the physician to review, which triggers the physician to indicate a diagnosis and brings to their attention the RDN's nutrition diagnosis and recommendations. At that point, physicians

are given the option to agree or disagree with the RDN assessment based on their own clinical judgement.

IT created a report that tracked how often physicians were reviewing and signing the Nutrition Progress Notes. If it was not completed, either the RDN or one of the physician champions would provide education to the physician about the malnutrition process. The Clinical Nutrition Manager and the medicine RDN participated in a meeting of the attending physicians for the medicine services to explain the malnutrition program and overall communication process. We highlighted the importance of providing clear and complete documentation and its impact on clarifying the severity of the patient's condition as well as reducing the number of queries physicians would receive from coding. When the physician diagnoses malnutrition in the EMR, he or she also should add the malnutrition diagnosis to the patient's problem list to provide further documentation that malnutrition is an active problem. The vice president of Medical Staff Affairs helped disseminate information to all physicians and regular in-services are required to train new medical staff. Following this initial rollout, we updated our policies and procedures to reflect the new malnutrition guidelines and processes.

Table 3. WVU Medicine Characteristics of Severe Protein Calorie Malnutrition* (ICD-9 Code 262/ICD-10 Code E43)

	Acute Illness or Injury	Chronic Illness	Social/Environmental
Energy Intake	<50% of EEE >5 days	<75% of EEE >1 month	<50% of EEE >3 months
Weight Loss	>2% 1 week >5% 1 month >7.5% 3 months	>5% 1 month >7.5% 3 months >10% 6 months >20% 1 year	>5% 1 month >7.5% 3 months >10% 6 months >20% 1 year
Body Fat Loss	Moderate depletion (2-3+)	Severe depletion (3-4+)	Severe depletion (3-4+)
Muscle Mass	Moderate depletion (2-3+)	Severe depletion (3-4+)	Severe depletion (3-4+)
Fluid Accumulation	Moderate (+3) or Severe (+4)	Severe (+4)	Severe (+4)
Grip Strength **	Measurably reduced (see chart for age/sex)	Measurably reduced (see chart for age/sex)	Measurably reduced (see chart for age/sex)
Pressure Ulcer	Stage III - IV	Stage III-IV	Stage III-IV
Nonhealing Wound	Present	Present	Present
Other Factors ***	BMI <18.5/BMI <23.5 (age 65+) Anorexia nervosa, benign esophageal stricture, organ failure, malignancies, rheumatoid arthritis, Crohn's disease, colitis, malabsorptive diseases, DM, CHF, COPD	BMI <18.5/BMI <23.5 (age 65+) Anorexia nervosa, benign esophageal stricture, organ failure, malignancies, rheumatoid arthritis, Crohn's disease, colitis, malabsorptive diseases, DM, CHF, COPD	BMI <18.5/BMI <23.5 (age 65+) Anorexia nervosa, benign esophageal stricture, organ failure, malignancies, rheumatoid arthritis, Crohn's disease, colitis, malabsorptive diseases, DM, CHF, COPD
	Major infections such as sepsis, pneumonia, peritonitis, wound infections, trauma, closed head injury, acute lung injury, ARDS, or major surgeries	Major infections such as sepsis, pneumonia, peritonitis, wound infections, trauma, closed head injury, acute lung injury, ARDS, or major surgeries	Major infections such as sepsis, pneumonia, peritonitis, wound infections, trauma, closed head injury, acute lung injury, ARDS, or major surgeries

*A minimum of three characteristics must be present. At least two characteristics must come from energy intake, weight loss, body fat, muscle mass, fluid, or grip strength.

ARDS=acute respiratory distress syndrome, BMI=body mass index, CHF=congestive heart failure, COPD=chronic obstructive pulmonary disease, DM=diabetes mellitus, EEE=estimated energy expenditure

** Grip Strength chart (Adapted from Reference Range for Model J00105 JAMAR Hydraulic Hand Dynamometer).

*** Other Factors: per the Academy of Nutrition and Dietetics. *International Dietetics and Nutrition Terminology Reference Manual under Malnutrition (NI-5.2)*. 2011 ADA Evidence Library.

A Learning Process

Although the hospital RDNs all had received training on identifying malnutrition in hospitalized patients at some point in their careers, we saw a need for further improvement of our skills to streamline the assessments. When we initially started this process in 2009, the 2011 malnutrition guidelines from the Academy and A.S.P.E.N. were not yet in place, so we needed to determine which criteria to use. We initially adopted criteria that included unintentional weight loss, decreased oral intake, albumin, prealbumin, transferrin, and the presence of pressure ulcers or nonhealing wounds. Although the RDNs were not using albumin, prealbumin, and transferrin as nutritional markers, we believed physicians would be less likely to agree with our assessments if these values were not included. Based on a subsequent decision not to use those inflammatory markers, as current recommendations support, they were removed within 1 year of starting this process. We also included a list of factors as indicated and defined in the Academy's *International Dietetics and Nutrition Terminology Reference Manual under Malnutrition (NI-5.2)* (10), including the presence of anorexia nervosa, malignancy, Crohn's disease, sepsis, and organ failure as well as a BMI of less than 18.5. Our reasoning was that this information may strengthen our overall determination of malnutrition due to increased nutritional risk. Also included as criteria were muscle wasting and body fat loss, which necessitated visual and hands-on assessment by the RDN and constitutes another aspect of the ongoing education process.

Initially, patients were assessed for all types of malnutrition, as identified by the ICD-9 codes, but RDNs currently are focusing only on severe protein-calorie malnutrition, a major complication or comorbidity, and protein-calorie malnutrition, non-severe, unspecified, a complication or comorbidity (Tables 2 and 3).

With the introduction of the ICD-10 coding system, the RDNs are evaluating the current policies and plan on updating procedures based on the new coding system. From the time the RDNs initiated this process, they decided that if they were not completely certain about the nutrition diagnosis based on the information obtained from the patient and family, chart review, and physical assessment, they would not categorize the patient as having protein-calorie malnutrition, taking into account the risk of fraud. WVU Medicine RDNs decided that three criteria would be required for a severe diagnosis and two criteria for an unspecified diagnosis to further strengthen the nutrition assessment documentation (Tables 2 and 3).

Based on the consensus guidelines recommendation (9), we initially encouraged

RDN documentation of malnutrition on patient admission but found this was not feasible in most cases, primarily due to a lack of available information. For example, obtaining information to diagnose malnutrition could be very difficult for the intubated patient admitted to the intensive care unit with no family available. Despite knowledge of the increased metabolic stress imposed on this population, we decided that an assessment within 24 to 48 hours of patient admission was reasonable, but the recommendation for a malnutrition diagnosis could be made beyond that time after more information was obtained. Of course, an earlier diagnosis would allow us to provide more nutrition intercession with the patient during a short hospital stay, but this is not always a feasible option.

During the transition of implementing the Malnutrition Coding program, WVU Medicine decision support collected billing and reimbursement information on all patients that contained documentation of malnutrition in the EMR. They billed for each patient and monitored the reimbursement that was obtained. For the purposes of our program, they only measured the amount of additional reimbursement received on patients for whom the DRG move was solely due to the diagnosis of malnutrition. This took into account patients who did not initially have a comorbidity (CC) and once malnutrition was identified moved them into a CC as well as patients who already had a CC upon admission and the diagnosis of malnutrition moved them into a major comorbidity (MCC). If the patient was admitted with a diagnosis that was already identified as an MCC, the additional documentation of malnutrition did not change the potential reimbursement. Therefore, these patients were not included in our data.

We compared the baseline reimbursement for malnutrition diagnoses 1 year before initiating the program to the overall reimbursement at the end of the initiation period. The results reflected an increase of 320% in the DRG reimbursement. This trend continued over the next 2 years.

We believed that documenting and treating malnutrition in all patients identified, regardless of potential reimbursement, still had a significant impact on patient care as well as risk adjustment. Per the coding specialists, all of the diagnoses assigned are used in the risk adjustment model used by the University Hospital Consortium, which compares our facility to other academic medical centers.

In hindsight, the RDNs could have put more emphasis on the outcomes of our interventions, which may have been possible if it would have been approached as a controlled study. Without

controls, however, it is difficult to extract data without considering the influence of numerous other factors outside of the nutrition interventions.

How Far We Have Come

Although WVU Medicine RDNs have become more comfortable with the malnutrition diagnosis process as the program has progressed, they believe that some proficiencies could be improved upon. Many RDNs felt their abilities to perform the physical assessment, including evaluation of muscle wasting, body fat loss, and edema, were inadequate. Accordingly, in the fall of 2014, RDNs at WVU Medicine participated in a hands-on physical assessment workshop that subsequently increased their comfort level with identifying physical attributes of malnutrition. Those who participated in the workshop reported increased comfort in identifying malnutrition, supporting nutrition assessments, and diagnosing malnutrition.

Currently, diagnosing malnutrition applies only to the adult population, but because of its success, a pediatric malnutrition program is in the process of being implemented, with plans to begin malnutrition coding of the pediatric population in early 2016.

We have created an important mutual relationship with the coding specialists. They continue to review the charts and communicate with individual RDNs if they suspect a patient might meet the criteria for malnutrition. To date, only three patients have been returned with possible denials of the malnutrition diagnosis. More information was requested and provided. Of those three, one was overturned and the diagnosis was upheld, one was downgraded from severe to moderate, and the third was denied for severe malnutrition (due to a normal albumin on admission despite multiple clinical characteristics).

Summary

The journey that our clinical RDNs have taken over the last 6 years has yielded several rewards. Through this learning process, we have become more proficient clinicians who delve deeper into the potential causes and sequelae of malnutrition. We have gained confidence in our ability to identify and provide optimal care for malnourished patients. We educated physicians on best practice guidelines for assessing malnutrition and the importance of our documentation on overall risk adjustment, which has had a positive impact on their practice. Hospital administration has a new appreciation for RDNs as revenue-generating entities and more fully appreciate our contributions to patient care. In fact, WVU Medicine recognized us with a

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quality award for our successes. The worth of RDNs has been proven at WVU Medicine through the development and implementation of the malnutrition diagnosis program.

CPEU questions for this article can be accessed at dndspg.org.

Jennifer S. Lowry, RD, LD, is a clinical dietitian and Jill Johnston, MS, RD, LD, is the Clinical Nutrition Manager at WVU Medicine, Morgantown, WV. Michelle Hoppman, RDN, LRD, CDE, is the Director, Nutrition Division and Executive Success Coach at DM&A, Chula Vista, CA.

References

1. Kirkland, L, Kashiwagi, D, Brantley S, Scheurer D, Varkey P. Nutrition in the hospitalized patient. *J Hosp Med.* 2013;8(1):52–58.
2. Academy of Nutrition and Dietetics. *ICD-9-CM/ICD-10-CM Codes for MNT.* 2015. <https://www.nutritioncaremanual.org/vault/2440/web/files/ICD-10-CM%20Codes%20for%20RDNs.pdf>. Accessed October 29, 2015.
3. Academy of Nutrition and Dietetics. Malnutrition coding. In: *Nutrition Care Manual*®. Chicago, IL: Academy of Nutrition and Dietetics; 2015. http://www.nutritioncaremanual.org/topic.cfm?ncm_heading&ncm_toc_id144942. Accessed October 2011.
4. Gariballa S, Forster S, Walters S, Powers H. A randomized, double-blind, placebo-controlled trial of nutritional supplementation during acute illness. *Am J Med.* 2006;119(8):693–699.
5. Brugler L, DiPrinzio MJ, Bernstein L. The five-year evolution of a malnutrition treatment program in a community hospital. *Jt Comm J Qual Improv.* 1999;25(4):191–206.
6. Smith PE, Smith AE. High-quality nutritional interventions reduce costs. *Healthc Financ Manage.* 1997;51(8):66–69.
7. Stratton RJ, Ek AC, Engfer M, et al. Enteral nutritional support in prevention and treatment of pressure ulcers: a systematic review and meta-analysis. *Ageing Res Rev.* 2005;4(3):422–450.
8. Milne AC, Potter J, Vivanti A, Avenell A. Protein and energy supplementation in elderly people at risk from malnutrition. *Cochrane Database Syst Rev.* 2009;2:CD003288.
9. White JV, Guenter P, Jensen G, Malone A, Schofield M; Academy of Nutrition and Dietetics Malnutrition Work Group; A.S.P.E.N. Malnutrition Task Force; A.S.P.E.N. Board of Directors. Consensus statement of the Academy of Nutrition and Dietetics/American Society for Parenteral and Enteral Nutrition: characteristics recommended for the identification and documentation of adult malnutrition (undernutrition). *J Acad Nutr Diet.* 2012;112(5):730–738.
10. Academy of Nutrition and Dietetics. *International Dietetics and Nutrition Terminology Reference Manual under Malnutrition (NI-5.2).* 2011 ADA Evidence Library. <http://adancp.com>. Accessed February 2011.

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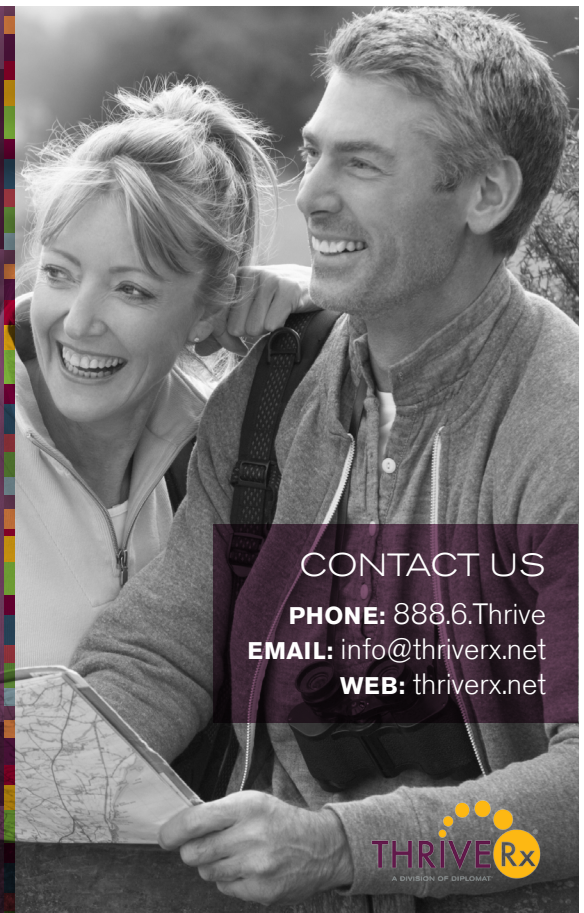
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