Impact of Accurate Malnutrition Coding on Case Mix Index

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Research Objective/Hypothesis: Accurate coding for malnutrition will increase the hospitals case mix index (CMI).

Relevance: The proposed malnutrition electronic clinical quality measure (eCQM) Appropriate Documentation of a Malnutrition Diagnosis includes confirmation that the malnutrition diagnosis is documented by the medical provider and included in claims data, which can then increase the CMI in some cases.

Background: CMI is a measure of the acuity or complexity of patients admitted to a facility in a specific time frame. It is calculated by averaging the relative weight (RW) of the diagnosis related group (DRG) assigned to each hospital discharge for all patients. Coding for malnutrition can increase the RW of some patients DRGs, thus increasing the hospitals overall CMI, which more accurately reflects the complexity of the patient population served.

Methods: In CY 2018 the registered dietitian nutritionists (RDNs) at a community hospital with an average census of 180 and CMI of 1.7185 recorded all patients they diagnosed with malnutrition. Coding data for those patients were obtained and included the final DRG assigned to that hospital stay, and secondary diagnoses coded as complications or comorbidities (CCs) or major complications or comorbidities (MCCs). From this information, it was determined if coding for the malnutrition diagnosis would have made an impact on CMI, i.e. increased the RW of the assigned DRG.

Results / Outcomes: Of the 961 patients the RDNs diagnosed with malnutrition upon initial assessment, 544 (56.6%) were not coded for malnutrition, and 65 (6.8%) were coded for non-severe protein calorie malnutrition (a CC), instead of severe protein calorie malnutrition (an MCC) as diagnosed by the RDN. Of these 609 cases, 270 (44.3%) would have increased the CMI if they had been coded properly for malnutrition. The average difference in actual CMI and potential CMI for this group of 270 patients was 0.9028.

Conclusions: Opportunity exists to improve coding for malnutrition identified by the RDN.

Implications for Policy or Practice: Appropriate documentation of a malnutrition diagnosis by the medical provider ensures that it is included in the claims data. Coding affects CMI, and CMI affects Medicare reimbursement. Additionally, many quality measurement programs required by the Center for Medicare and Medicaid Services (CMS) and other agencies are adjusted for CMI; thus proper coding for malnutrition can positively influence the hospitals quality dashboard.

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Nutrition Focused Physical Exam Improves Accuracy of Malnutrition Diagnosis

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Research Objective/Hypothesis: Registered dietitian nutritionists (RDNs) will accurately identify the presence and degree of malnutrition using nutrition focused physical exams (NFPE).

Relevance: NFPE improves accuracy of malnutrition diagnoses, which are necessary to ensure adequate payment and assign risk of mortality and severity of illness scores. This abstract supports the malnutrition electronic clinical quality measure (eCQM) Appropriate Documentation of Malnutrition Diagnosis.

Background: NFPE and Malnutrition – RDNs use NFPE to assess the physical characteristics outlined in the 2012 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).

Hospital Payments - Hospitals are paid based on the average expected cost to care for patients categorized into Diagnosis Related Groups (DRG). The principal diagnosis determines the assigned DRG; secondary conditions or diseases that increase the cost of care are either major complications or comorbidities (MCCs), or complications or comorbidities (CCs). The hospital receives a higher payment for DRGs associated with a CC, and an even higher payment for DRGs associated with an MCC. Diagnoses are also assigned risk of mortality and severity of illness scores, affecting the quality metrics for all hospitals. Mild and moderate malnutrition are CCs, and severe malnutrition is a MCC.

Methods: Morrison Healthcare RDNs attended a NFPE Peer Champion hands-on training workshop provided by the Academy of Nutrition and Dietetics. Eight RDNs from eight hospitals collected data to determine the impact of performing NFPE on the identification of malnutrition. They also tracked the number of categories of malnutrition clinical characteristics used to support the malnutrition diagnosis. Patient identifying information was not tracked.

Patient classification:
Category 1: Patients not identified with malnutrition; the nutrition diagnosis would not influence the DRG
Category 2: The nutrition assessment, including the NFPE, revealed a malnutrition diagnosis that is a CC
Category 3: The nutrition assessment, including the NFPE, revealed a malnutrition diagnosis that is a MCC

Patients were noted to have moved one severity level if they moved from Category 1 to Category 2, or Category 2 to Category 3. They were noted to have moved two severity levels if moving from Category 1 to Category 3.

Results / Outcomes: RDNs reported on 691 patients. Of these, 393 (57%) were identified with a higher degree of malnutrition once NFPE was completed. 265 patients (38%) moved one category, and 128 (19%) moved two categories. Overall, 244 patients (35%) had a nutrition diagnosis of severe malnutrition according to the consensus statement criteria. On average, three categories of malnutrition clinical characteristics were used for each diagnosis, with a range from two to six categories. This quality review project tracked RDN-identified malnutrition, not malnutrition documented by physicians or included in claims forms. Furthermore, analysis was not completed to determine whether the malnutrition code was the only CC or MCC assigned.

Conclusions: Utilizing NFPE to determine the presence and degree of malnutrition can have a positive influence on key quality measures and hospital payment by increasing the accuracy of the nutrition diagnosis.

Implications for Policy or Practice: RDNs should perform NFPE for all patients at risk for malnutrition to ensure an accurate nutrition diagnosis is made.

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