USWR28: Obtaining Preoperative Nutritional Recommendations from a Registered Dietitian Nutritionist (RDN) in Nutritionally At-Risk Surgical Patients

**Description:** Percentage of patients age 18 years and older who have undergone a surgical procedure and were identified to be at-risk for malnutrition based on a malnutrition screening OR who were referred to a registered dietitian nutritionist or clinically qualified nutrition professional and have a preoperative nutrition assessment which was documented in the medical record along with documentation of any recommended nutrition interventions.

**National Quality Strategy Domain:** Effective Clinical Care

**Measure Type:** Process

**Meaningful Measure Area:** Promote Effective Communication & Coordination of Care

**Type of Measure:** Process

**Improvement Noted As:** An increase in rate

**Measure Level:** Clinician Measure (Physician or Group Practice)

**CMS Requirements**

a. High Priority: No
b. Inverse Measure: No
c. Traditional Measure: Yes
d. Proportional Measure: Yes
e. Risk Adjusted: No
f. # of PERFORMANCE RATES: 1

**Numerator:** Patients in the denominator who have documentation in the medical record of a preoperative nutrition assessment AND recommended nutrition interventions to address their nutrition risk. Nutrition interventions are categorized by those outlined by the Academy of Nutrition and Dietetics’ nutrition intervention terminology:

1. Food and Nutrient Delivery
2. Nutrition Education
3. Nutrition Counseling
4. Coordination of Nutrition Care

**Included Populations:** None

**Excluded Populations:** None

**Data Elements:**

- Referral to a Nutrition Professional
- Completed Malnutrition Screening
- Malnutrition Screening At-Risk

**Denominator:** All patients age 18 years and older on the date of the encounter with an eligible surgical procedure who were identified to be at-risk for malnutrition upon the completion of a malnutrition screening OR who have a referral for a nutrition consult with a registered dietitian or clinically qualified nutrition professional. Available validated screening tools may include, but are not limited to, one of the following:

- Malnutrition Screening Tool (MST) (Wu, 2012),
- Nutrition Risk Classification (NRC) (Kovacevich, 1997),
- Nutritional Risk Index (NRI) (Honda, 2016),
• Nutritional Risk Screening 2002 (NRS-2002) (Bauer, 2005),
• Short Nutrition Assessment Questionnaire (SNAQ) (Pilgrim, 2016).


Included Populations: Patients with an eligible surgical procedure (see procedure codes) completed malnutrition screening, as defined by value set OID: 2.16.840.1.113762.1.4.1095.40 OR patients with a referral to a registered dietitian or nutrition professional

Excluded Populations: None

Denominator Exceptions: Documented patient reason for not participating in screening or patients with advanced directives

Data Elements:
• Birthdate
• Encounter Type
• Encounter Date Time
• Completed Nutrition Assessment
• Coordination of Care by a Nutrition Professional
• Nutrition Care Plan
• Nutrition Recommendation Grouping
• Advanced Directives
• Patient Reason
• Surgical Procedure Value Sets (Cardiac, General, GI, Knee/Hip Surgeries; Surgery with a Scope)
• Surgical Site Complications or Bleeding
• Diagnoses of Diabetes, Septicemia, UTI, COPD, AKF, Pneumonia

Clinical Recommendation Statement: Screening for malnutrition risk is the preliminary step to identify individuals who require a nutrition assessment performed by a registered dietitian nutritionist. By completing a malnutrition screening, patients at-risk of malnutrition are identified and can be referred to a dietitian to complete a nutrition assessment. The early and rapid identification of malnutrition risk allows for early treatment of malnutrition which is associated with reduced, risk of hospitalization and readmission, and overall healthcare costs. Furthermore, by completing a nutrition assessment for patients at-risk of malnutrition (typically first identified by screening for risk or via referral from a physician), a
dietitian can subsequently recommend a nutrition care plan that includes appropriate interventions to address the patient’s malnutrition. The early and rapid identification of malnutrition allows for early treatment of malnutrition which is associated with reduced risk of hospitalization or 30-day readmission rate, and overall healthcare costs.


Rationale: Recent evidence finds that older adult patients’ prevalence of malnutrition ranging from 5.8 - 30% in the community (Snider, 2014) and more specifically, risk of malnutrition is more prevalent in communities facing health disparities (Sheean, 2019). Malnourished patients are more likely to require hospitalization and be readmitted after discharge (Streicher, 2018, Abizanda, 2016). Malnutrition is also associated with important adverse patient safety outcomes such as increased risk of complications (Choi, 2016), and readmissions (Lim, 2012) and conditions such as frailty (Verlaan, 2017). Patients who experience these increased risks are also associated with a significant increase in costs (Goates, 2016). Referral rates for dietetic assessment and treatment of malnourished patients have proven to be suboptimal, thereby increasing the likelihood of patients developing such complications (Gomes, 2016, Cereda, 2015, Corkins, 2014, Barker, 2011, Lim, 2012, Amaral, 2008, Kruizenga, 2005).

Gap in Practice: Screening for the risk of malnutrition in care settings is important to enable early and effective interventions for patients who are malnourished or at-risk of malnutrition (Mueller, 2011, White, 2012). These screenings are the first step in providing optimal, evidence-based malnutrition care for patients. With regard specifically to screening, a study by Sherry et. al (2017) demonstrated that only 65% of patients who screened positive for malnutrition risk received any referral to a nutrition professional or an order for nutritional support.

Although a review of nationally-representative data on cost and utilization indicated that in 2016, 8% of patients had a diagnosis of malnutrition (Barrett, 2018), this may be a severely underreported figure identified in other research studies which have estimated that 4-19 million cases are left undiagnosed and untreated. Another example reported by Volkert (2018) demonstrated that nutritional status is not adequately documented in patient populations that are most at-risk such as geriatric populations. conducted a national survey of hospital-based professionals in the United States focused on nutrition screening and assessment practices and associated gaps in knowledge of nutrition care. Out of 1,777 unique respondents, only 36.7% reported completing nutrition screening at admission, and 50.8% reported doing so within 24 hours. Only 69% reported documenting the findings in the medical record.

Risk Adjustment: No
**Sampling:** None

**Data Reported As:** Aggregated rate generated from count data reported as a proportion (numerator/denominator)

**References:**


