**Data Integration and Process Outcomes Results**

**Improving Adult Malnutrition Coding, Documentation and Reimbursement: A Multicenter Approach**

**Author:** D. Wicks; Novant Health/Compass Group

**Purpose:** The purpose of this process improvement (PI) project was to improve provider malnutrition documentation and coding accuracy.

**Relevance:** Accurately identifying malnutrition along with documentation are important factors weighing in on nutrition intervention implementations throughout hospitalization. These factors play a role in discharge planning and continuum of care on an outpatient basis. The proposed malnutrition electronic clinical quality measure (eCQM) appropriate documentation of a malnutrition diagnosis includes ensuring the malnutrition diagnosis is included in claims data and therefore available to increase the Case Mix Index (CMI).

**Background:** Registered dietitian nutritionists (RDNs) play a key role in identifying patients that meet criteria for malnutrition using various tools during the patient assessment process, including Nutrition Focused Physical Exam (NFPE). What are RDNs to do with this critical information outside of treat the condition and notify the attending provider? There are multiple interdisciplinary departments that influence the ability to make PI projects impacting patient centered care successful.

**Methods:** A sequence of events and communications took place with multiple leadership personnel in nutrition, coding, billing, finance, reimbursement, informatics and medical affairs to ensure this PI project would obtain support for success. Over the course of 4 years, malnutrition identification, documentation and coding grew from 1 facility to 13 facilities. NFPE training, practice and integration into day to day patient care started this process. Pharmacy and Therapeutics Committee approved use of Academy of Nutrition and Dietetics/American Society for Parenteral and Enteral Nutrition malnutrition clinical characteristics criteria and provided education to medical staff. Electronic health record software improvements took place to route patients identified at risk for malnutrition on admit to a RDN screening dashboard. Enhancements to the coding departments query template using the health systems approved criteria was completed nearly 3 years after the first facility started the PI project as part of a Malnutrition Coding Excellence (MCE) project set forth by the health system.

**Results / Outcomes:** Reports were generated using an excel format on a quarterly basis to include all patients with a diagnosis of severe protein calorie malnutrition (E43) and moderate protein calorie malnutrition (E44) as the primary or secondary diagnosis. Filters were applied for ease of data separation to exclude observation, outpatient and emergency status. Self-pay/indigent care payor sources as well as Diagnosis-Related-Groups (DRG) without Major Comorbid Condition (MCC) were also excluded from data to ensure figures were not skewed when compared to expected and actual payments received. Baseline data before the MCE project was compared with post-implementation data. Malnutrition diagnosis directly impacted 45% of actual payments received from payors. Baseline data from the year immediately preceding implementation of the MCE project did not show significance due to various reasons, including RDN staffing, turnover and training needs during that time period which decreased overall patients coded for malnutrition. Direct impact by the RDN was not reviewed as part of this PI project; therefore, this data was not included.

**Conclusions:** High level communication and involvement is necessary for a PI project of this degree to be successful in any healthcare corporation. RDNs are the key drivers to identifying malnutrition which was notable in the post MCE project implementation. This evidence can be used to help validate RDN staffing in addition to showing unrecognized value brought to an organization.

**Implications for Policy or Practice:** Further data collection needs to occur to identify direct impact of the RDN when malnutrition is coded using approved guidelines as well as payment denials. A review of facility staffing models would be another area to explore to ensure there is adequate RDN coverage. Identification of pediatric malnutrition using the health systems approved criteria is another area of focus that will likely demonstrate a value to patient centered care.

**Funding Source:** None

**NurISH Team: A Nutrition-Centric Inpatient Rehabilitation Rounding Structure**

**Author(s):** R. Clark, G. Francisco; TIRR Memorial Hermann

**Purpose:** To reduce nutritional decline of malnourished patients in an inpatient rehabilitation hospital through an innovative rounding structure.

**Relevance:** Malnutrition was present on admission registered dietitian nutritionist (RDN) assessment in 227 inpatients (13%) in 12 months preceding PI intervention. A subgroup of these patients (n=39, 17%) experienced nutritional decline, defined as not meeting nutrition goals in >2 RDN reassessments during admission despite development of a nutrition care plan.

**Background:** Rates of malnutrition are estimated at 14-51% in post-acute care and 20-50% in acute care. Despite an overlap in prevalence, there are significant differences in frequency of nutrition care planning between acute and post-acute care settings, spanning from daily in acute care to weekly in inpatient rehabilitation to quarterly in skilled nursing and long-term care.

**Methods:** A quality metric to track patients with malnutrition, who did not meet nutrition goals, and intervention were developed using the Define, Measure, Analyze, Improve, Control (DMAIC) process.

**Define:** From April 2017-March 2018, 237 inpatients (13%) met diagnostic criteria for malnutrition on admission RDN assessment. Of those, 39 (17%) did not meet nutrition goals, receiving <75% of estimated nutrition needs, on >2 RDN reassessments during admission. A separate Malnutrition Quality Improvement Initiative (MQII) project found significant association between meeting nutrition goals and RDN evaluation of the malnutrition diagnosis as improved (p<0.001).

**Measure:** All patients with a nutrition diagnosis of malnutrition were tracked via an automated report twice weekly and nutrition goal achievement was recorded for each RDN reassessment. Patients that did not meet goals on >2 RDN reassessments were recorded as a percentage of total patients with malnutrition.

**Analyze:** Three opportunities were identified for immediate optimization: (1) Delayed physician intervention; (2) Inadequate enteral nutrition provision during transition to oral diet; (3) Misconceptions of enteral intolerance that resulted in missed feedings.

**Improve:** Nutrition Interdisciplinary High Risk (NurISH) Team Rounds were developed to increase the frequency of RDN and physician monitoring and nutrition care planning; NurISH Team Rounds relies on a pyramid structure to relay information from nurses, therapists, and pharmacists to the RDN. The RDNs meet with a fellow twice per week for 15-20 minutes and develop care plan recommendations for the attending physician. Due to streamlined care coordination, rounds did not increase RDN time required.

**Control:** Results were measured weekly, trends are analyzed monthly, and opportunities for further improvement were presented and evaluated at Quality Council each quarter.

**Results / Outcomes:** Post-intervention, 262 patients were diagnosed with malnutrition and 27 (10%) did not meet nutrition goals on >2 RDN reassessments, an improvement compared to pre-intervention (17%). Of the 27 patients that did not meet nutrition goals initially, 67% met goals by discharge post-intervention, compared to 44% pre-intervention.

**Conclusions:** A novel rounding structure with a minimal resource footprint that increased frequency of targeted nutrition care planning on malnourished patients and decreased the percent of these patients that experienced a nutritional decline was implemented.

**Implications for Policy or Practice:** Further research is needed to elucidate the effect of undernutrition and nutrition interventions on functional independence and return to full community participation following rehabilitation.

**Funding Source:** None