Session Description:
In today’s business environment and healthcare arena its imperative dietetics professionals understand and integrate quality management into their dietetics practice. This session will review updates on the QPI Sub-Unit (year #3) as well as conduct the awards for the QPI Process Improvement project award program/contest. The session will end with education on the Academy’s new Standards of Excellence Metrics Tool, to include an overview, demonstration, and explanation of how it can be utilized to assess and improve practice. The Standards of Excellence Metrics Tool applies to all practice segments of nutrition and dietetics.

Academy’s Standards of Excellence Metric Tool:
Standards of Excellence in Nutrition and Dietetics for an Organization is a self-assessment tool to measure and evaluate an organization’s program, services and initiatives that identify and distinguish the Registered Dietitian Nutritionist (RDN) brand as the professional expert in food and nutrition. (source - Academy website)


2016 QPI Award Program:

Top 10 Project Posters
Be sure to stop by the QPI Poster Sessions on Monday, April 18th during the vendor exhibits to learn of the great work your fellow CNMs have done and vote for your “People’s Choice” poster selection.

Top 10 Project Abstracts: (listed alphabetically by author)

1. Emily Collins, MHA, RD, CNSC; University of Michigan Health System

   **Interdisciplinary Strategies Improve Medical Provider Capture of Pediatric Malnutrition Diagnoses Identified by Registered Dietitians**

   Documentation and coding pediatric malnutrition (PM) improves patient care, impacts institutional risk/quality scores, and optimizes reimbursement. With the advent of a uniform definition of PM (Mehta et al., 2013) and the publication of PM indicators (Bouma et al., 2014), Registered Dietitians (RDs) are better equipped to identify PM. It’s well-known that a gap exists between identifying PM and it’s coding. We hypothesized that this is due in part to lack of MD capture of RD identification of PM as evidenced by an internal 2013 prospective study indicating a 3% capture rate. To meet our goal of improving MD capture, focused interdisciplinary strategies were implemented.

   During 2014 and 2015, pediatric RDs from inpatient services logged each time they charted on a patient they identified with PM, diagnosed using MTool™. Data collection took place for two weeks each Fall to account for seasonal variations. After data collection, chart review determined if MDs captured the PM diagnosis in their progress note.

   Of the patients diagnosed with PM, provider capture rates of PM improved from 3%(2013) to 39%(2014) to 71%(2015). Each year new strategies were used to increase MD capture of PM diagnosis. Previous strategies were kept in place as new layers were added.

   Capturing the PM diagnosis after RD identification requires interdisciplinary communication strategies. Strategies included RD education and use of electronic health record to increase MD capture of PM diagnosis for coding. This limited, observational study cannot prove cause and effect, but illustrates that improved MD capture may be achieved when key stakeholders collaborate.
2. **Bonnie Javurek, MEd, RDN, LD; Cleveland Clinic**

**Accuracy of Nursing Nutrition Screen**

The percentage of adult inpatients identified at nutrition risk on admission is lower than expected and is a widespread problem across patient units. Previous studies demonstrated that nursing staff completes 99% of admission nutrition screens but only 8% of patients are found to be at nutrition risk. The goal of the project was to increase the percentage of patients identified at risk.

Using the PDSA process, the accuracy of nursing nutrition screens on two units was compared to responses obtained by the team. It was found that for 31 patients, nurses identified 23% of patients at risk, compared to 55% identified by the team. This represents a gap of 32% between groups.

Nursing in-services were conducted by sharing pre-intervention results and providing interpretation guidelines of screening questions. Post-intervention results identified improvement in nursing responses with 41% of patients identified at nutrition risk vs. 63% identified by the team, indicating a 10% improvement in screening. Results were shared with the nursing staff.

Study limitations are that it was conducted on units with high rates of nutrition issues and it is uncertain if results would be similar on lower acuity units. Post-intervention results were monitored once and it is unclear if the intervention is sustainable. Sixty-two percent of the cohort was trained and results may have been higher if mandatory training was required. Future plans are to create an on-line training module for all nurses and to continue the monitoring process.

3. **Kristen Mathieson, MBA, RD, CDN; New York-Presbyterian Hospital**

**The Patient Voice: Impact of Anticoagulation Education via Tablets on Patient Comprehension and the Patient Experience**

Registered Dietitians are intricately involved in teaching patients self-care skills that will enhance the quality of their lives and, hopefully, prevent avoidable readmissions. Technology has been shown to be an effective strategy for presenting information and improving knowledge outcomes. After learning of the great success of medication education via tablet by the Transplant Pharmacy department, in September 2015 the Clinical Nutrition team launched a pilot providing Warfarin drug/nutrient education via tablet, as it is a frequently prescribed anticoagulant with significant and often misunderstood drug/nutrient interactions.

The tablet was loaded with the Tonic for Health application programmed to include a video explaining the drug/nutrient interactions associated with Warfarin treatment and dietary management of these drug/nutrient interactions, a quiz on the material presented to evaluate the patient’s understanding after education, and a brief satisfaction survey. The post-education quiz results are immediately emailed to the dietitian, providing enhanced insight as to the patient/caregivers understanding of the drug/nutrient interactions associated with Warfarin treatment so that further education, if warranted, can be provided. As a baseline, patients who declined the tablet education were provided traditional verbal education and prompted the same knowledge and satisfaction questions to compare results.

Timely and complete documentation of Warfarin education is a National Patient Safety Goal regulated by the Joint Commission and data captured on the tablet allows for the continuous assessment of performance. Educating patients/caregivers in this interactive and engaging manner also positively affects patient satisfaction and allows the Clinical Nutrition team to continue to enhance our patient education experience.

4. **Wendy Phillips, MS, RD, CNSC, CLE, FAND; Morrison Healthcare**

**Reducing Missed Opportunities for Hospital Revenue and Impacts on the Case Mix Index through a Malnutrition Coding Initiative**

Problem/Opportunity: Malnourished patients get sick more often and remain sicker longer. Therefore, it is important to identify malnutrition and treat it. Coding for malnutrition can impact the Diagnosis Related Group (DRG) relative weight for the admission and the payment for the hospital. Prevalence studies at an academic medical center conducted by RDs indicated ~67% of patients were malnourished. Statistics from the coding department indicated that significantly fewer patients were coded for malnutrition during that same time period, indicating need for improvement in malnutrition identification and coding.
Methods: Chart reviews were completed for 217 patients admitted with community-acquired pneumonia from March 1, 2014 to March 31, 2015. Data collected included RD documentation of nutrition status, DRG and all diagnoses coded for that admission.

Results: Eight patients had a coded diagnosis of severe malnutrition; of those, the malnutrition diagnosis increased the DRG relative weight for five patients. Increased revenue was $18,875. Seven additional patients were diagnosed by the RD with malnutrition. These nutrition diagnoses were not documented by the physicians or the coders. The missed payment for those admissions was $29,813. Additionally, the case mix index (CMI) could have increased from 0.7044 to 1.1746, having additional positive influence on quality metrics including adjusted mortality.

Conclusion: Expected mortality, complication rates, and length of stay are commonly adjusted for severity of illness as represented by the CMI. The higher CMI correlates with improved reported outcome measures for those patients. RDs play an essential role in identifying malnutrition for appropriate DRGs and CMI.

5. Rachel Riddiford, MS, RD, LD; Dayton Children's Hospital
Increasing percent of healthier cafeteria choices sold at breakfast during Monday-Friday
Our hospital formed the Healthy Way Initiative to significantly shift our culture to comprehensively address childhood overweight and obesity.

Utilizing concepts from the Traffic Light Diet, I chose a QI project to promote "yellow and green" items sold in the cafeteria during Monday-Friday breakfast from 53% to 70% while still offering a wide variety of foods to consumers. The team increased opportunities to purchase these items and incentivized purchasing through cost reduction and education.

While the goal of moving sales from 53% to 70% did not occur, a shift did. Reaching the goal in our current environment would require a reduction in “red” items which is, at this time, counter-productive.

This was a particularly challenging project due to the culture of our cafeteria customers who traditionally demand "red" food items and balancing our goal to make the healthy choice the easy choice while also supporting efforts to maintain/improve patient satisfaction and employee engagement. Lessons include the need for significantly improved efficiency in food service operations, and a continued focus on education and over-arching cultural change. Spread continues slowly while plans for two new kitchens by the end of the year prioritize promoting healthy choices and other components of the healthy way initiative spread and affect cultural expectations.

6. Mary Shapero, MS RD CNSC LDN; Christiana Care Health Services
Malnutrition Incidence and Physician Compliance to Registered Dietitians Malnutrition Diagnosis and Documentation in a large trauma center
Malnutrition in hospitalized patients can affect quality of life, increase length of stay, impact morbidity, mortality and increase cost of care. To accurately identify malnourished patients, a malnutrition criteria grid was adapted from ASPEN and AND. Despite education on the use of this new criteria, physicians often did not diagnosis and document malnutrition based on the dietitian's identification; a requirement for reimbursement.

Dietitians assessed 1661 patients in August 2014. Of these, 6.5% were identified as meeting one of the malnutrition criteria. If physicians did not respond to the Dietitian's note, Clinical Documentation Specialists queried them. After the Dietitians note and/or query, 48% of the patients meeting criteria for malnutrition still were not identified as such by the physicians. Malnutrition when appropriately identified is recognized as a co-morbid condition that increases a patients severity of illness score and can increase hospital reimbursement. Potential lost revenue where malnutrition was not documented is estimated to be $75,695.00 if all were Medicare patients. When extrapolated out to one year, potential lost revenue approaches 1 million dollars. Since the majority of patients meeting malnutrition criteria were admitted under two physician groups, they were targeted for the first line of intervention in the form of letters.

Electronic alerts to physicians via Malnutrition chart templates increased physician documentation be 12%. Sharing letters and compliance information with physician groups further increased documentation. This increase in documented malnutrition potentially increased reimbursement by $273,666.00.

Electronic charting upgrades are in progress to facilitate the coding of malnutrition and assure best practice.
7. **Caroline Steele, MS, RD, CSP, IBCLC; Children’s Hospital of Orange County**  
*Utilization of a Nutrition Support Algorithm Reduces Inappropriate Parenteral Nutrition Use in Pediatric Oncology Inpatients*

Pediatric oncology patients may be unable to maintain their nutrition status with oral intake alone. Data showed parenteral nutrition (PN) usage in the oncology units at CHOC Children’s was high: 82% of nutrition support days and 87% of total oncology inpatient days. Therefore, an oncology nutrition support algorithm was launched in FY 2010 to promote appropriate PN usage. However, preparation for a new hospital tower removed focus from the project until FY 2013. Data for the second quarter of FY 2013 (prior to the new tower opening) was collected as a second baseline. Upon tower opening, the algorithm was reintroduced to all staff. Average days and cost of unnecessary PN were tracked FY 2014-2015 and compared to baseline.

**EVALUATION OF FINDINGS**

Total oncology patient hospital days increased by 20% FY 2013 to FY 2015, yet average PN days per quarter decreased by 26% with unnecessary PN days decreasing by 86%, resulting in an average cost savings of $12,780 per quarter (PN solution and labor). PN days comprised 87% of total oncology patient inpatient days in FY 2009, but dropped to 5% of patient days in FY 2015 despite a 20% increase in total patient days.

**CONCLUSIONS**

Pediatric oncology patients often have central IV access which may lead to overuse of PN. Creating standards for PN use and ongoing emphasis on those standards may result in significant reduction in unnecessary PN use and subsequent cost savings.

8. **Sara Tutor, RD, CNSC; University of Michigan**  
*Creation of an Inpatient Blenderized Tube Feeding Policy to Improve Patient Safety, Promote Continuity of Care, and Provide Nutritional Support to Pediatric Inpatients and their Families*

Blenderized tube feedings (BTF) are increasing in use at the University of Michigan Health System, particularly in pediatric patients receiving long term enteral nutrition. RDNs identified the need for a policy to address the use of BTF in the inpatient setting in C.S. Mott Children’s Hospital.

A BTF Committee was formed, comprised of RDNs, Food Service Managers, a Dietetic Technician, and a Parent Advisor to create a BTF policy which aims to improve patient safety, promote continuity of care, and to provide support to families.

The policy includes a decision tree for determining appropriateness of continuing BTF during hospitalization. Patients continuing their BTF regimen work with an RDN to select menu items and design a BTF tailored to their nutritional and medical needs. The BTF is then prepared in a 24 hour batch in the kitchen.

During creation of this policy, the input of Nursing and Infection Prevention was utilized. Parent Advisors were surveyed for feedback on the menu selections. A Parent Advisor on the BTF Committee helped guide the vision of the policy and maintained the focus on the patient and family.

Future improvements to the BTF policy will be based on staff and patient feedback obtained via surveys. Future efforts of the BTF Committee include potentially expanding to adult populations within our institution and improving BTF patient education materials. As a nationally recognized center, we can serve as a model and resource for other institutions who strive to better meet the needs of patients on BTF.

9. **Jennifer Wilson, MS, RD, LDN; UPMC Shadyside Hospital**  
*Evaluation of the Neutropenic Diet - Is it Really Needed?*

Chemotherapy-induced neutropenia increases the vulnerability to infection and mortality in oncology patients. Prophylactic measures to prevent infection include antibiotics, isolation measures, and dietary restrictions. The neutropenic diet has been used to prevent the occurrence of infection and mortality in oncology patients. Research has revealed that the neutropenic diet does not contribute to lower infection and/or mortality rates in adult oncology patients with chemotherapy-induced neutropenia.

An interdisciplinary team was formed to eliminate the application of the neutropenic diet from clinical practice across inpatient and outpatient clinical care settings over a 6 month period. Implementation included changes to the electronic medical record, diet ordering practice change for neutropenic oncology patients, revision of patient
education material, revision of nursing policy, and staff education. Collaboration across disciplines and physician support were essential to the success of this change.

Clostridium difficile and Vancomycin Resistant Enterococci (VRE) infection rates were recorded. Percentage of inpatient meal consumption was also observed. Findings to date indicate that Clostridium difficile and VRE rates did not increase after the neutropenic diet was eliminated. Patient meal consumption was not influenced by the liberalization of the diet.

Interdisciplinary collaboration and effective communication were central to the elimination of the neutropenic diet from clinical practice. Anecdotal patient feedback has indicated greater satisfaction with a less restrictive diet. More data is needed to determine the significance of this change on patient infection and is being studied.

10. Natalie Zych, RD, LD; HCA Midwest Healthcare/Morrison Healthcare

Enhancement of Nutrition Screening at The HCA Midwest Kansas City Market Cancer Centers

Problem: Limited use of nutrition screening/referral process in the outpatient oncology setting.

Background: All patients diagnosed with cancer should have a nutrition screen completed during initial diagnosis and throughout the continuum of care to help identify nutritional risks and deficits according to The Academy of Nutrition & Dietetics and Commission on Cancer accreditation standards. Studies have shown that nutrition interventions have helped to decrease weight loss during treatment, reduce breaks in treatment, and results in fewer readmissions into the hospital during treatment.

Methods: Incorporated a nutrition validated screening tool from an adapted form of the Patient Generated Subjective Global Assessment (PG-SGA) . Partnered with Abbott Nutrition to enhance nutrition resources available in each Cancer Center.
   -Nursing to complete screening in the eMR (Mosaiq) on all new cancer patients during their first visit and throughout the continuum of care.
   -All patients deemed as “High Risk” are referred to the Dietitian to initiate a consultation . The Dietitian calls each high risk patient to set up an appointment.
   -Collaboration with nursing to provide patients with educational resources such as symptom management handouts and supplement samples

Outcomes: Implementation of a validated Nutrition Screening Process is important and vital in efforts to identify patients at high nutritional risk.
   -A validated and standardized Nutrition Screening Process initiates nutrition interventions in a timely manner.
   -Implementation of the Nutrition Screening Process increased multidisciplinary staff awareness of nutrition.
   -Nutrition Screening has increased nutrition consultations via QCL process in eMR.

Since go live in June 2014; 700% increase in “High Risk” referrals, 300% increase in Dietitians consultation.
   -Developed a standardized process helps to identify high nutrition risk patients in a timely manner.
   -Implementation of the Nutrition Screening Process elevated the importance of nutrition to all multidisciplinary staff members.

Limitations:
   -Ongoing staff education to ensure completion of nutrition screen/referral process.
   -Limited availability of the Dietitian.
   -Frequent no shows and refusal of consultations by patients.

Future Goals:
   -Incorporate the nutrition screening tool into the nursing admission assessment.
   -Increase the Dietitian’s hours of support
   -Collect outcome data on “High Risk” patients.