Malnutrition Quality Improvement Opportunities for the District Hospital Leadership Forum

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Malnutrition Has a Significant Impact on Patient Outcomes

MALNUTRITION IS ASSOCIATED WITH A HIGH BURDEN OF DISEASE, INCREASED COMORBIDITIES, AND SIGNIFICANT ECONOMIC COSTS.

1 in 3 patients are malnourished upon admission\(^1,\!2\)

31 percent of patients experience declines in nutrition status during their hospital stay\(^3\)

Malnutrition-associated outcomes include depression of the immune system, impaired wound healing, and muscle wasting\(^4\)

Malnutrition increases length of stay by 4 to 6 days\(^4\)

Malnutrition increases costs by up to 300 percent\(^5\)

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There Have Been Limited Quality Improvement Efforts in the U.S. to Address Malnutrition Care

SOME LOCAL QI PROGRAMS HAVE A MALNUTRITION-RELATED COMPONENT, BUT AN ENVIRONMENTAL SCAN SUGGESTS THERE ARE NO U.S.-BASED MALNUTRITION QI INITIATIVES TO DATE

**Washington Surgical Care and Outcomes Assessment Program**

- Includes nutrition-related care processes and data collection (e.g., nutrition status assessment) pre- and post-surgery to improve surgical outcomes

**American Nurses Association Hospital eMeasure Development**

- Develops hospital-based eMeasures focused on healthcare problems associated with malnutrition, such as pressure ulcers and fall prevention

**Illinois Surgical Quality Improvement Collaborative**

- Implements ACS’ NSQIP recommendations, including nutritional assessment, to optimize outcomes for surgery patients

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QI: Quality Improvement; ACS NSQIP: American College of Surgeons; NSQIP: National Surgical Quality Improvement Program
Malnutrition Care Is Further Inhibited by a Lack of Robust Quality Measures

Evidence-based, systematic measurement to support malnutrition care can improve outcomes for hospitalized elderly patients

ONS: Oral nutritional supplement

*Please note that this measure was developed for the outpatient setting
Malnutrition Quality Improvement Addresses a Number of Gap Areas Prioritized by CMS and NQF

### Prioritized Measure Gap Areas

<table>
<thead>
<tr>
<th>Area</th>
<th>Description</th>
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<tbody>
<tr>
<td>Appropriateness/Efficiency</td>
<td>Burden on Patients and Families</td>
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<tr>
<td>Communication</td>
<td>Patient Experience and Satisfaction</td>
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<td>Patient Follow-up</td>
<td>Ambulatory Safety</td>
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<td>Direct Costs</td>
<td>Medication Adherence/Use</td>
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<td>Effective Preventive Services</td>
<td>Shared Decision-making</td>
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<td>Functional Status</td>
<td>Patient Self-management</td>
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<td>Medication Management</td>
<td>Prevention of Serious Events</td>
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<td>Accountability for Care Coordination</td>
<td>Indirect Costs</td>
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<tr>
<td>Use of Care Plans</td>
<td>Standardized HAI Rates</td>
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<tr>
<td>Patient Engagement</td>
<td>Productivity</td>
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<tr>
<td>Health Lifestyle Behaviors</td>
<td>Patient Activation</td>
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</tbody>
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National Quality Strategy priority areas emphasize safety, care coordination, prevention, patient/family engagement, best practices for healthy living, and cost savings

NQF: National Quality Forum, CMS: Centers for Medicare & Medicaid Services, HAI: Hospital-Acquired Infections

New Malnutrition Quality Improvement Initiative Aims to Address Gaps and Barriers to Quality Care

GIVEN THE LACK OF MALNUTRITION-FOCUSED QI EFFORTS AND THE NEED TO ADVANCE MEASURES IN THIS SPACE, NUTRITION STAKEHOLDERS HAVE LAUNCHED A NEW QUALITY INITIATIVE

1. Identify existing gaps in evidence and measurement
2. Engage with key stakeholders (e.g., CMS) to discuss care barriers
3. Conduct malnutrition best practices research in acute care settings
4. Hold two national dialogues to identify opportunities for optimal malnutrition care

Launch “Malnutrition Quality Improvement Initiative”

High quality nutrition care has been shown to decrease complications by 14% and avoidable readmissions by 28%\(^1\)
Malnutrition Quality Improvement Efforts Have Multi-stakeholder Support

SNAPSHOT OF ORGANIZATIONS WITH REPRESENTATIVES PARTICIPATING IN MALNUTRITION QUALITY IMPROVEMENT INITIATIVE DIALOGUES

| Professional Societies                      | Academy of Medical Surgical Nurses |
|                                          | Academy of Nutrition and Dietetics  |
|                                          | American Nurses Association         |
|                                          | American Society for Parenteral and Enteral Nutrition |
|                                          | Society of Hospital Medicine        |
| Government Agencies                      | Centers for Medicare & Medicaid Services |
|                                          | Office of the National Coordinator for HIT |
| Patient Organizations                    | Alliance to Advance Patient Nutrition |
|                                          | American Kidney Fund                |
|                                          | National Partnership for Women and Families |
|                                          | National Association of Nutrition & Aging Services Program |
|                                          | Geisinger                          |
| Hospitals and IDNs                       | North Fulton Hospital               |
|                                          | University of Illinois at Urbana Champaign |
|                                          | University of Michigan Health System |
| Trade Associations                      | AdvaMed                             |
|                                          | American Hospital Association       |
| Other Organizations                     | Abbott                              |
|                                          | EHR Association and McKesson       |
|                                          | Healthwise                          |
|                                          | The Joint Commission                |

Representatives from many of these organizations remain involved in the MQII work in an advisory capacity and provide ongoing guidance to these efforts.
What is the Malnutrition Quality Improvement Initiative (MQII)?

THE MQII INTENDS TO SUPPORT AND ADVANCE IMPROVED CARE QUALITY FOR AT-RISK AND MALNOURISHED OLDER ADULTS

MQII Objectives

- Demonstrate how to improve malnutrition care with an interdisciplinary care team roadmap (toolkit) focused on decreasing time to identification and treatment of malnourished and at-risk hospitalized older adults
- Develop malnutrition quality measure(s) “that matter” – to help improve outcomes that are important to patients and clinicians
- Advance tools and measures that can be integrated into existing EHR systems to help improve quality care while minimizing administrative burden

The MQII is focused on older adults (ages 65 and older) given the significant impact malnutrition has on this patient population and the notable opportunity to improve care among these patients
The MQII is Rooted in a Set of Core “Guiding Principles”

The MQII is founded on evidence demonstrating that nutrition intervention can improve patient clinical outcomes and lower cost of care for malnourished and at-risk hospitalized adults, including decreasing morbidity and mortality, hospital-acquired conditions, and complications, enhancing care transitions, and reducing patient length of stay and unplanned readmissions.

It aims to:

- **address the gap in optimal malnutrition care** delivery for hospitalized older adults (ages 65+) based upon evidence across the entire spectrum of malnutrition care delivery, including screening, assessment, diagnosis, nutrition intervention, and discharge planning.

- **advance early screening, assessment, diagnosis and prompt nutrition intervention** for malnourished and at-risk hospitalized older adults.

- **promote patient-driven nutritional intervention** that incorporates patient preferences and risk factors.

- defines nutrition interventions as **standard or specialized diets, oral nutrition supplements, tube feeding, parenteral nutrition, and patient education or counseling**.

- promote patient safety and improve patient outcomes with malnutrition care coordination across all members of the care team, including patients, families, dietitians, physicians, nurses, and other healthcare professionals.

- **enhance access to and visibility of nutrition care plans** through integration of malnutrition care documentation in standardized electronic health record (EHR) templates.
The MQII Will Introduce a Hospital-Based Demonstration to Improve Malnutrition Care

MQII Demonstration Design

<table>
<thead>
<tr>
<th>3 Months</th>
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<th>1+ Months</th>
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<tbody>
<tr>
<td><strong>Pre-Demonstration Phase</strong></td>
<td><strong>Demonstration Phase</strong></td>
<td><strong>Post-Demonstration Phase</strong></td>
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<tr>
<td>- Protocol design</td>
<td>- Implementation of toolkit in hospitals (demonstration and Learning Collaborative sites)</td>
<td>- Assessment of toolkit implementation</td>
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<td>- Creation of MQII toolkit</td>
<td>- Data collection on toolkit implementation, changes to clinical practice</td>
<td>- Assessment of changes in clinical practice variability</td>
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<td>- Site recruitment (both Demonstration site and Learning Collaborative sites)</td>
<td>- Rapid cycle identification of barriers to toolkit use and assistance to change practices</td>
<td>- Pre/post analysis of malnutrition knowledge attainment</td>
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<td>- IRB submission</td>
<td>- Support for hospital implementation (e.g., “office hours,” responses to care team questions, etc.)</td>
<td>- Pre/post analysis of length-of-stay and readmission rates</td>
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<td>- Baseline data collection (e.g., hospital characteristics, clinical workflow, etc.)</td>
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<td>- Creation of web portal</td>
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<td>- Contracting and training</td>
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<tr>
<td>- Feasibility assessment for toolkit</td>
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The MQII Demonstration will introduce a toolkit for all hospital-based care team members to support better coordinated and higher quality malnutrition care*

* While the components of the toolkit have been well-validated and, in many cases, reflect best practices being used in some hospital sites, the MQII Demonstration offers the opportunity to bring together varied and inconsistent implementation of these practices and evaluate their implementation and dissemination to a variety of team members.
There Has Been Significant Interest in the MQII Demonstration from Hospitals Across the Country

If the District Hospital Leadership Forum chooses to use the toolkit, it will have already been evaluated in numerous sites through the demonstration, making it an even more rigorous tool with documented benefits

Reflects hospital interest as of May 12, 2015
The Toolkit Offers a “Turn Key” Approach for Hospitals to Support Improved Malnutrition Care

The Toolkit intends to:

• Provide a feasible and usable malnutrition quality improvement toolkit that can be easily deployed by a multi-provider care team in an acute setting

• Reduce clinical practice variability related to malnutrition care

• Improve knowledge of the importance of malnutrition and best practices for optimal malnutrition care delivery

• Reduce the cost of care associated with patients who are malnourished or at-risk for malnutrition

The toolkit will serve as an evidence-based guide to help hospitals introduce optimal malnutrition care, while remaining flexible enough to be adapted to the unique features of different hospital settings

MQII Demonstration Toolkit Overview

- Introduction
  - Introduction to Toolkit
  - Introduction to the MQII
  - Business Case for the MQII

- Before You Start
  - Principles of Quality Improvement
  - Building Your Team
  - Understanding Your Existing Workflow
  - Defining Your Data
  - Institutional Project Management

- Getting Started: Implementation
  - Review and Understand Recommended Toolkit Workflow
  - Determine Data Capture Mechanism
  - Train Care Team
  - Implementation and Evaluation

- Keeping it Going
  - Continue to Track Progress Over Time
  - Disseminate Findings
Implementation of the Toolkit Will be Assessed Using a Set of Quality Indicators (1 of 2)

**Malnutrition Care Workflow**

**Screening**
- Length of time between hospital admission and completion of a malnutrition screening
- Percentage of patients admitted to hospital who received a malnutrition screening within 24 hours

**Assessment**
- Length of time between completion of a positive malnutrition screening and a completed malnutrition assessment
- Length of time between admission and a completed malnutrition assessment for patients with a positive malnutrition screening
- Percentage of patients with a positive malnutrition screening who also had a completed malnutrition assessment

**Diagnosis**
- Percentage of patients with a positive malnutrition assessment who have a malnutrition-related diagnosis documented in the medical record
Implementation of the Toolkit Will be Assessed Using a Set of Quality Indicators (2 of 2)

Malnutrition Care Workflow

Patient-Driven Treatment Plan
- Percentage of patients with a completed malnutrition assessment or a malnutrition-related diagnosis of at-risk or malnourished who have a documented malnutrition treatment plan in the medical record

Intervention
- Percentage of patients with a malnutrition diagnosis who had a nutrition intervention implemented
- Percentage of patients with a positive malnutrition screening who had a diet order implemented within 24 hours of the completed screening
- Length of time between admission and implementation of a nutrition intervention for patients diagnosed as malnourished or at-risk.

Discharge Planning
- Percentage of patients with a positive malnutrition assessment who have a malnutrition treatment plan included as part of their post-discharge continuing care plan
The MQII Could Provide the Foundation for CHA’s Efforts to Support Expanded Populations

**Current MQII Approach**

- Older adults (65+) / Medicare population
- Acute care settings
- In-hospital Care

**Potential Expanded Opportunities for the DHLF**

- Duals population
- Patients with high risk/chronic conditions: diabetes, COPD, cardiovascular, oncology, GI
- Acute care settings (i.e., hospitals)
- Long-term and post-acute care settings
- Departments; Surgery, ED, ICU
- In-hospital care
- Transitions to other care settings
- Preventive care

CHIP: Children’s Health Insurance Program; COPD: Chronic obstructive pulmonary disease; GI: Gastrointestinal; ED: Emergency Department; ICU: Intensive Care Unit
APPENDIX: Additional Resources

Recent Publications

- “Critical Role of Nutrition in Improving Quality of Care: An Interdisciplinary Call to Action to Address Adult Hospital Malnutrition” Tappenden et al., Journal of Parenteral and Enteral Nutrition 2013, 37: 482.
- “Malnutrition Among Cognitively Intact, Noncritically Ill Older Adults in the Emergency Department” Pereira et al., Annals of Emergency Medicine, January 2015, Volume 65, Issue 1.
- “Effect of hospital use of oral nutritional supplementation on length of stay, hospital cost, and 30-day readmissions among Medicare patients with COPD” Snider et al., CHEST, Online October 2014.