Interprofessional Implementation of the Global Malnutrition Composite

October 19, 2022 • 12:00 – 1:00 PM ET

Moderator
Ainsley Malone, MS, RD, CNSC, FAND, FASPEN
American Society for Parenteral and Enteral Nutrition
Silver Spring, MD

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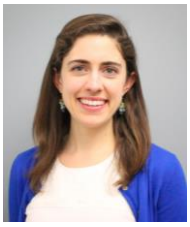
Moderator

Ainsley Malone, MS, RD, CNSC, FAND, FASPEN

American Society for Parenteral and Enteral Nutrition, Silver Spring, MD

Faculty



Christina Badaracco, MPH, RD, LDN,

Avalere Health, Washington, DC

Sharon M. McCauley, MS, MBA, RDN, LDN, FADA, FAND,

Quality Management,

Academy of Nutrition and Dietetics, Chicago, IL

Matthew L. Bechtold, MD, FACP, FASGE, FACG, AGAF,

Department of Medicine,

University of Missouri School of Medicine, Columbia, Missouri

Kenneth G. Nepple, MD,

Department of Urology,

University of Iowa Carver College of Medicine, Iowa City, IA

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Data Underlying the Global Malnutrition Composite Score and Connection to Health Equity

Christina Badaracco, MPH, RDN, LDN
Research Scientist
Avalere Health
Washington, DC

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Disclosures

- Abbott; Consultant
- Kroger; Consultant

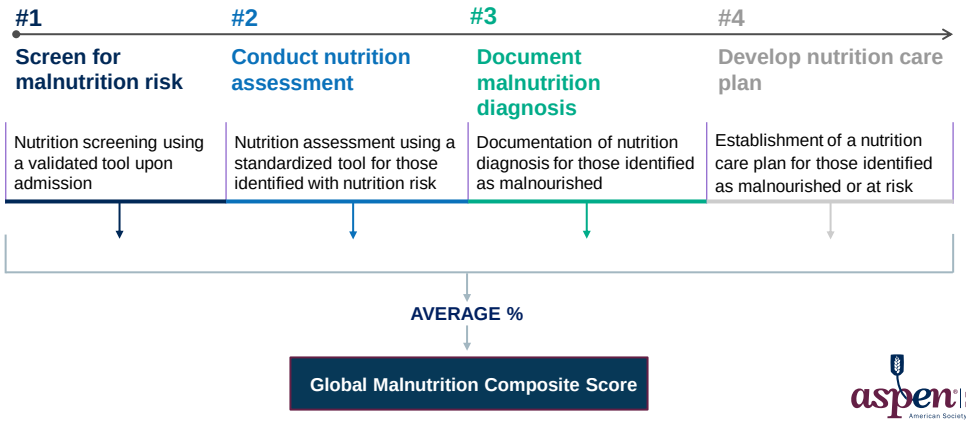
Learning Objectives

Upon completion of this educational activity, the learner will be able to:

1. Understand the creation and structure of the Global Malnutrition Composite Score (GMCS) and the data reflected by its 4 component measures
2. Explain how malnutrition and its risk affect health equity and how they can be addressed in tandem
3. Access pertinent resources to learn more about the GMCS and how to prepare for future reporting

GMCS Performance Is Based on Average of 4 Component Measures

- To calculate a final GMCS score, each component measure is scored individually
- Calculating the average of the 4 component measures provides a final GMCS score
- A hospital must have at least 20 cases in the denominator for each component measure and at least 3 scorable component measures to receive an overall GMCS score



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Global Malnutrition Composite Score Is a Composite Measure Derived from 4 Individual eCQMs

Component Measures	Numerator	Denominator
Completion of a Malnutrition Screening	Patients in the denominator who have a malnutrition screening documented in the medical record	Patients age 65 years and older at time of admission who are admitted to an inpatient hospital
Completion of a Nutrition Assessment for Patients Identified as At Risk for Malnutrition	Patients in the denominator who have a nutrition assessment documented in the medical record	Patients age 65 years and older at time of admission who are admitted to an inpatient hospital and were identified as at risk for malnutrition upon completion of malnutrition screening
Appropriate Documentation of Malnutrition Diagnosis	Patients in the denominator with a diagnosis of malnutrition documented in the medical record	Patients age 65 years and older at time of admission who are admitted to an inpatient hospital with findings of malnutrition upon completion of nutrition assessment
Nutrition Care Plan for Patients Identified as Malnourished after a Completed Nutrition Assessment	Patients in the denominator who have a nutrition care plan documented in the medical record	Patients age 65 years and older at time of admission who are admitted to an inpatient hospital with findings of malnutrition upon completion of nutrition assessment

Denominator Exclusions: Patients with a length of stay less than 24 hours and those discharged to hospice care or who left against medical advice are excluded from the composite measure calculation

"Composite Measure Scoring Algorithm." Malnutrition Quality Improvement Initiative. Accessed October 3, 2022. https://malnutritionquality.org/measurement-data/.

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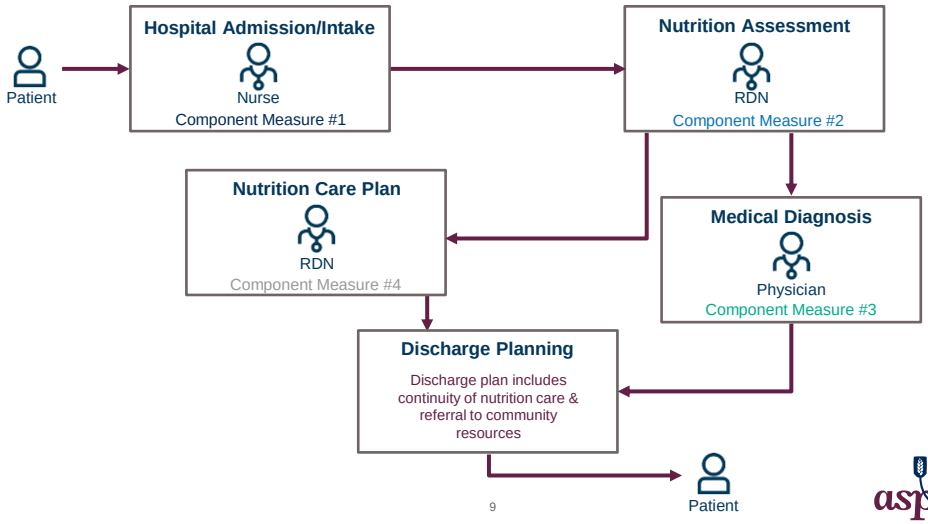
Anchoring Clinical Workflow by the GMCS Component Measures Can Help Address Nutrition Post-Discharge



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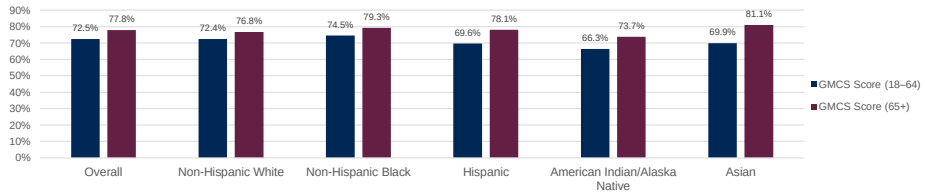
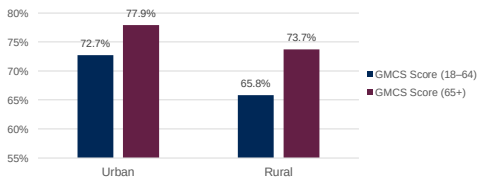
GMCS Performance Data Reveal Opportunities to Provide Equitable Nutrition Care

Performance data indicate that malnutrition care and associated outcomes vary widely across diverse demographic groups.

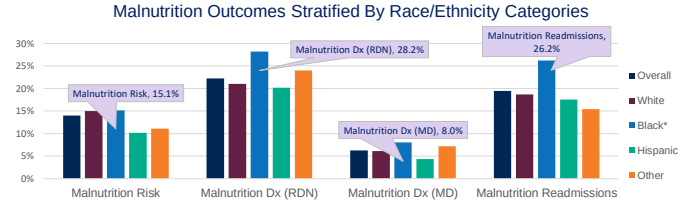
GMCS Performance Scores By Age Strata and Race/Ethnicity Categories



GMCS Scores By Age Strata & Urban/Rural Geography



Malnutrition Outcomes Stratified By Race/Ethnicity Categories



*Non-Hispanic Black patients showed the largest disparities in terms of the malnutrition outcomes reported and are highlighted in these graphs.
Note: Data on malnutrition care and outcome disparities were presented to the NQF Prevention and Population Health Endorsement Committee in 2021. N=429,396 for GMCS analysis and N=179,336 for outcomes study.

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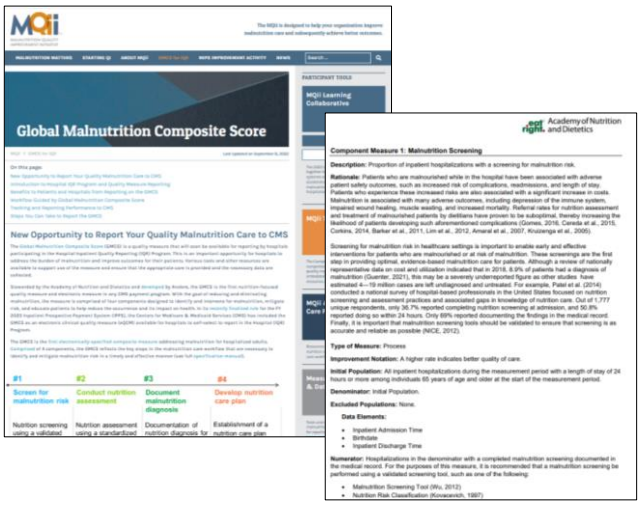
Existing and Forthcoming Resources Offer Further Information About the GMCS and Reporting Opportunity



Upcoming Events and Resources	
Event/Resource	**Timeline**
Academy's November Quarterly Spotlight on Malnutrition	November 2022
MQii Toolkit GMCS module	Fall 2022
MQii GMCS "quick start guide"	Fall 2022
GMCS FAQ document	Fall 2022 (and ongoing)
More trainings, documents, etc. (TBD)	2022 and beyond

"Global Malnutrition Composite Score." Malnutrition Quality Improvement Initiative. Accessed October 3, 2022. https://malnutritionquality.org/gmcs-for-iqr/.

Academy of Nutrition and Dietetics. Global Malnutrition Composite Score Specification Manual. June 2022. https://www.eatrightpro.org/-/media/eatrightpro-files/practice/quality-management/quality-improvement/gmcs-specification-manual_final.pdf?la=en&hash=58CB0084C4FEEDB2A2F0C71962EC13AE9AE0BF7A.

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References List

1. "Composite Measure Scoring Algorithm." Malnutrition Quality Improvement Initiative. Accessed October 3, 2022. https://malnutritionquality.org/measurement-data/.
2. "Global Malnutrition Composite Score." Malnutrition Quality Improvement Initiative. Accessed October 3, 2022. https://malnutritionquality.org/gmcs-for-iqr/.
3. Academy of Nutrition and Dietetics. Global Malnutrition Composite Score Specification Manual. June 2022. https://www.eatrightpro.org/-/media/eatrightpro-files/practice/quality-management/quality-improvement/gmcs-specification-manual_final.pdf?la=en&hash=58CB0084C4FEEDB2A2F0C71962EC13AE9AE0BF7A.
4. Data on malnutrition care and outcome disparities. Presented to the NQF Prevention and Population Health Endorsement Committee. 2021.

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Interprofessional Implementation of the Global MalNutrition Composite Score - GMCS

How to Use for Quality Reporting

Sharon M. McCauley, MS, MBA, RDN, LDN, FADA, FAND
Executive Director
Commission on Dietetic Registration
Academy of Nutrition and Dietetics
Chicago, IL

Wednesday October 19, 2022 12:00pm ET

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Disclosure

- *No commercial relationships to disclose.*

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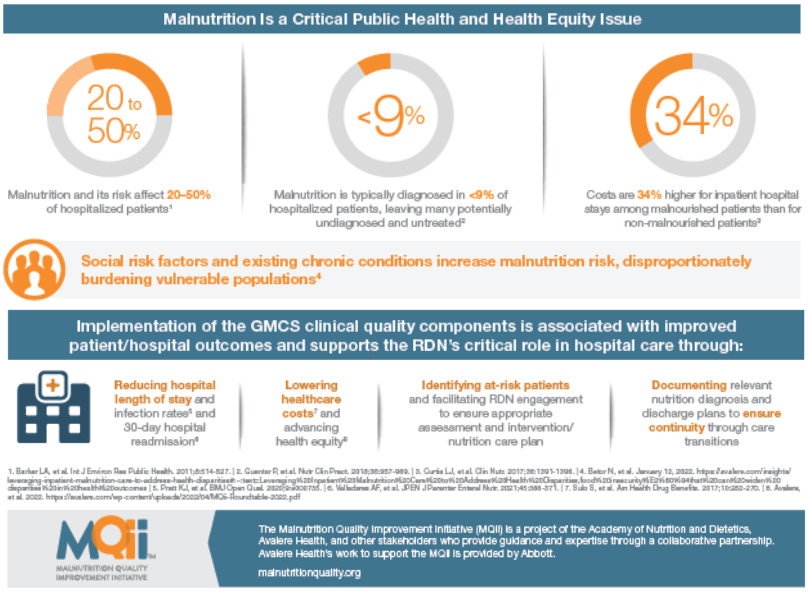
Malnutrition Significance and the MQii



[October 2022 *JAND* Supplement]

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Why Act?

Studies of nutrition screening effectiveness have demonstrated that both patient health outcomes and hospital economic outcomes are improved when malnutrition is more effectively identified and treated

Appropriate nutrition assessment, intervention, and monitoring and evaluation can play a role in preventing hospital readmissions that are related to malnutrition

McCauley SM, Barrocas A, Malone A. Hospital Nutrition Care Betters Patient Clinical Outcomes and Reduces Costs: The Malnutrition Quality Improvement Initiative Story. *J Acad Nutr Diet*. 2019; 119S2 (9): S11-S14.
Fitall E, Jones Pratt K, McCauley SM, et al. Improving Malnutrition in Hospitalized Older Adults: The Development, Optimization, and Use of a Supportive Toolkit. *J Acad Nutr Diet*. 2019; 119S2(9): S25-S31.
Dorner B, Kriedrich EK. Position of the Academy of Nutrition and Dietetics: Individualized Nutrition Approaches for Older Adults: Long-Term Care, Post-Acute Care, and Other Settings. *J Acad Nutr Diet*. 2018; 118(4): 724-735.

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Malnutrition Quality Improvement Initiative

Academy of Nutrition and Dietetics, along with Avalere Health and other stakeholders, developed and implemented the Malnutrition Quality Improvement Initiative (MQii), a national nutrition-focused quality improvement initiative.

McCauley SM, Mitchell K, Heap A. The Malnutrition Quality Improvement Initiative: A Multiyear Partnership Transforms Care. *J Acad Nutr Diet*. 2019; 119S2(9): S18-S24.

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MQii Toolkit

The MQii Toolkit is a guide for identifying and implementing clinical quality improvements for malnutrition care. It is designed to support changes among the care team's clinical knowledge and raise awareness of best practices for optimal nutrition care delivery.

Fitall E, Jones Pratt K, McCauley SM, et al. Improving Malnutrition in Hospitalized Older Adults: The Development, Optimization, and Use of a Supportive Toolkit. *J Acad Nutr Diet*. 2019; 119S2(9): S25-S31.
https://malnutritionquality.org/mqii-toolkit/

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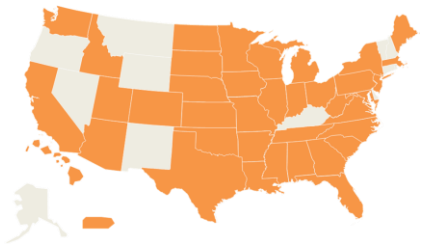
MQii Learning Collaborative

- Community of clinicians committed to improving delivery of malnutrition care in hospitals and health systems across the US.
- Undertake a data-driven, patient-centered, malnutrition quality improvement project at their respective institutions using a best practices Toolkit and are encouraged to use malnutrition eCQMs to track and monitor improvement.

313 sites in 38 states and Puerto Rico



The Malnutrition Quality Improvement Initiative. Introduction to MQII Learning Collaborative. Published 2021. Accessed May 20, 2022. https://malnutritionquality.org/mqii-learning-collaborative/

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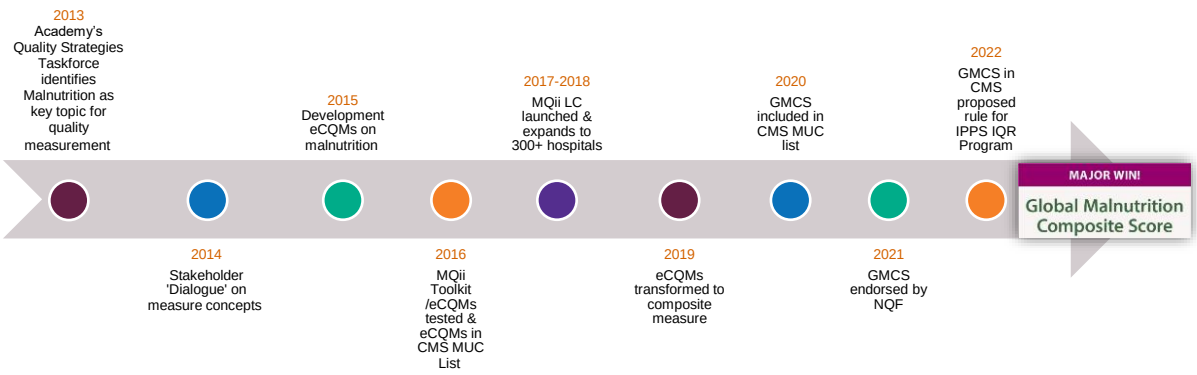
History of Measures Development

Measurement Development Timeline



Source: Academy of Nutrition and Dietetics. Quality Initiatives. Access here

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Global Malnutrition Composite Score – Endorsed "Best in class"!

NATIONAL QUALITY FORUM
Driving measurable health improvements together

NQF ID	Measure Title	Measure Steward/ Developer	Standing Committee Recommendation	CSAC Voting Result	CSAC Decision
3592e	Global Malnutrition Composite Score	Academy of Nutrition and Dietetics/Avalere Health, LLC	Recommended for endorsement	Uphold the Standing Committee's recommendation: **12** Do not uphold the recommendation at this time; instead, return the measure back to the Standing Committee: **0**	**Endorsed**

The Consensus Standards Approval Committee (CSAC) Voting Results and Decisions for Fall 2020 Measures:
https://www.qualityforum.org/About_NQF/CSAC/Meetings/2021_CSAC_Meetings.aspx

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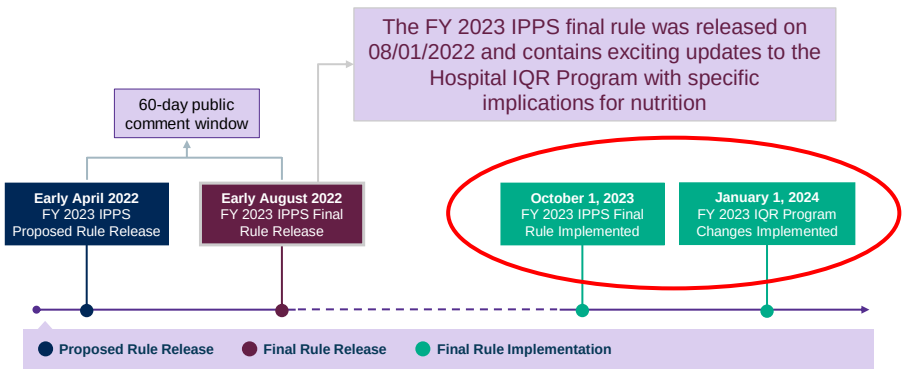
GMCS Reporting Begins in January 2024



FY: Fiscal Year; IPPS: Inpatient Prospective Payment System; IQR: Inpatient Quality Reporting
Source: CMS. FY 2023 IPPS Final Rule. Access here.

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CY2024 Mandatory eCQMs

- Beginning CY2024, hospitals would be required to report data for three measures related to opioids and maternal care.
- Hospitals must also choose three self-selected eCQMs from the below list- so why choose the GMCS?

TABLE IX.H.-13: PROPOSED AND PREVIOUSLY FINALIZED ECQMS FOR ELIGIBLE HOSPITALS AND CAHS FOR THE CY 2024 REPORTING PERIOD AND SUBSEQUENT YEARS

Short Name	Measure Name	NQF No.
HH-02	Hospital Harm—Severe Hyperglycemia Measure	3533e
HH-01	Hospital Harm—Severe Hypoglycemia Measure	3503e
STK-02	Discharged on Antithrombotic Therapy	0435
STK-03	Anticoagulation Therapy for Atrial Fibrillation/Flutter	0436
STK-05	Antithrombotic Therapy by the End of Hospital Day Two	0438
VTE-1	Venous Thromboembolism Prophylaxis	0371
VTE-2	Intensive Care Unit Venous Thromboembolism Prophylaxis	0372
Safe Use of Opioids*	Safe Use of Opioids – Concurrent Prescribing	3316e
ePC-07/SMM***	Severe Obstetric Complications	NA
ePC-02***	Cesarean Birth	NA
HH-ORAE****	Hospital Harm-Opioid Related Adverse Event	3501e
GMCS****	Global Malnutrition Composite Score	3592e

*Reporting the Safe Use of Opioids-Concurrent Prescribing eCQM is mandatory beginning with the CY 2022 reporting period.
*** If finalized as proposed, reporting Severe Obstetric Complications and Cesarean Birth (ePC-02) will be mandatory beginning with the CY 2024 reporting period.
****Newly proposed in this proposed rule to add to the eCQM measure set, beginning with the CY 2024 reporting period.

Centers for Medicare & Medicaid Services (CMS), Department of Health and Human Services (HHS). Final rule. 8/10/2022. Medicare Program; Hospital Inpatient Prospective Payment Systems for Acute Care Hospitals and the Long-Term Care Hospital Prospective Payment System and Policy Changes and Fiscal Year 2023 Rates; Quality Programs and Medicare Promoting Interoperability Program Requirements for Eligible Hospitals and Critical Access Hospitals; Costs Incurred for Qualified and Non-Qualified Deferred Compensation Plans; and Changes to Hospital and Critical Access Hospital Conditions of Participation. https://www.federalregister.gov/documents/2022/08/10/2022-16472/medicare-program-hospital-inpatient-prospective-payment-systems-for-acute-care-hospitals-and-the

Resources Package

September 2019 *JAND* Supplement

August 2022 *JAND* President's Page

October 2022 *JAND* Supplement

VALUE, REPORTING, & QUALITY: A BENEFICIAL RELATIONSHIP

Interprofessional Implementation of the Global Malnutrition Composite Score Webinar

MATTHEW BECHTOLD MD, FASGE, FACG, AGAF, FASPEN
PROFESSOR OF CLINICAL MEDICINE
DIRECTOR OF ENDOSCOPY
DIRECTOR OF GI AMBULATORY SERVICES
UNIVERSITY OF MISSOURI
COLUMBIA, MO

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Disclosure

- Exact Sciences – Speaker
- Medtrition – Advisory Board
- Nestle Nutrition Institute – Speaker

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Learning Objectives

Upon completion of this educational activity, the learner will be able to:

1. Understand the value of the treatment of malnutrition
2. Recognize the importance of inpatient reporting
3. Identify and implement quality improvement measures

We will not cover the following:

1. Why is abbreviation such a long word?
2. Why is there neither pine nor apple in pineapple?
3. What happens when you get scared half-to-death twice?

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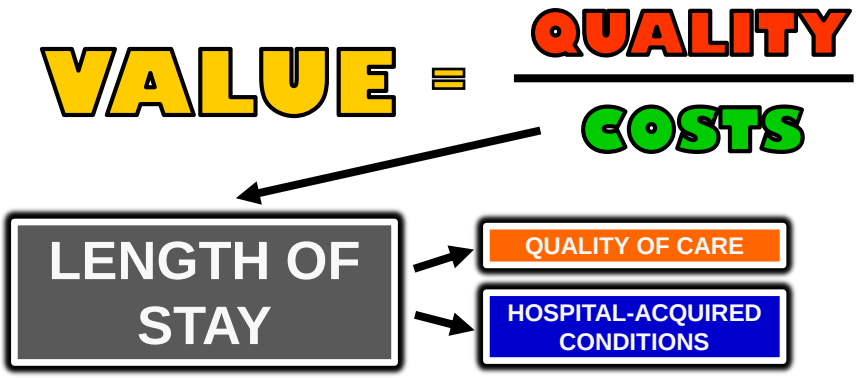
VALUE OF NUTRITION

VALUE

Value is an integral part of practice



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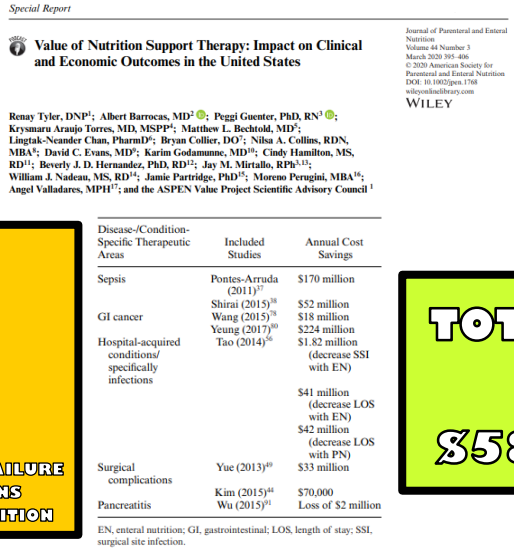
VALUE OF NUTRITION



Special Report

Value of Nutrition Support Therapy: Impact on Clinical and Economic Outcomes in the United States

Journal of Parenteral and Enteral Nutrition
Volume 44 Number 3
March 2020 395–406
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DOI: 10.1002/jpen.1768
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Renay Tyler, DNP[1]; Albert Barrocas, MD[2]; Peggi Guenter, PhD, RN[3]; Krysmaru Araujo Torres, MD, MSPP[4]; Matthew L. Bechtold, MD[5]; Lingtak-Neander Chan, PharmD[6]; Bryan Collier, DO[7]; Nilsa A. Collins, RDN, MBA[8]; David C. Evans, MD[9]; Karim Godamunne, MD[10]; Cindy Hamilton, MS, RD[11]; Beverly J. D. Hernandez, PhD, RD[12]; Jay M. Mirtallo, RPh[3,13]; William J. Nadeau, MS, RD[14]; Jamie Partridge, PhD[15]; Moreno Perugini, MBA[16]; Angel Valladares, MPH[17]; and the ASPEN Value Project Scientific Advisory Council [1]

CHF
COPD
DIABETIC WOUNDS
ESRD
GI CANCERS
HIP FRACTURE
HACs
IBD & GI DYSMOTILITY
PANCREATITIS
SEPSIS
SHORT-BOWEL INTESTINAL FAILURE
SURGICAL COMPLICATIONS
CROSS-DISEASE & MALNUTRITION

Disease-/Condition-Specific Therapeutic Areas	Included Studies	Annual Cost Savings
Sepsis	Pontes-Arruda (2011)[37]	$170 million
	Shirai (2015)[38]	$52 million
GI cancer	Wang (2015)[78]	$18 million
	Yeung (2017)[80]	$224 million
Hospital-acquired conditions/ specifically infections	Tao (2014)[56]	$1.82 million (decrease SSI with EN)
		$41 million (decrease LOS with EN)
		$42 million (decrease LOS with PN)
Surgical complications	Yue (2013)[69]	$33 million
	Kim (2015)[44]	$70,000
Pancreatitis	Wu (2015)[91]	Loss of $2 million

EN, enteral nutrition; GI, gastrointestinal; LOS, length of stay; SSI, surgical site infection.

TOTAL SAVINGS
=
$580,000,000

- Tyler R, et al. JPEN 2020

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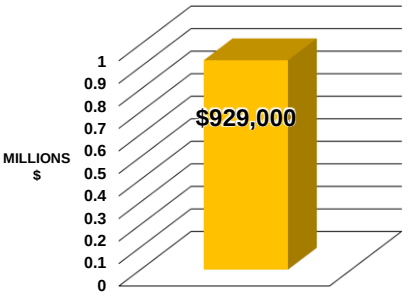
VALUE OF NUTRITION IN HAIs

CLINICAL RESEARCH

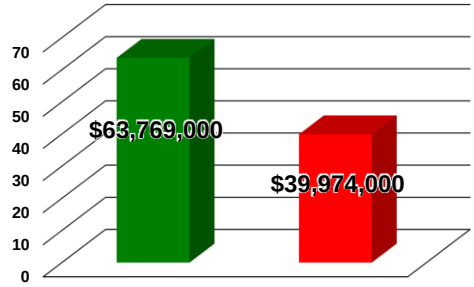
Impact of a nutrition support therapy on hospital-acquired infections: A value analysis

Matthew L. Bechtold MD[1] | Hariharan Regunath MD[1] | Renay Tyler DNP, ACNP[2] | Peggi Guenter PhD, RN[3] | Albert Barrocas MD[4] | Nilsa A. Collins RDN, MBA[5]

21% REDUCTION IN HAIs WITH NUTRITION SUPPORT THERAPY



DECREASE IN LOS IN PATIENTS RECEIVING NUTRITION SUPPORT THERAPY



TOTAL ANNUAL SAVINGS FOR CMS WITH NUTRITIONAL SUPPORT THERAPY vs NO NUTRITION SUPPORT THERAPY FOR HAIs = $104,673,000

- Bechtold M, et al. Nutr Clin Pract 2021

VALUE OF NUTRITION IN GI MALIGNANCIES

Value of nutrition support therapy in patients with gastrointestinal malignancies: a narrative review and health economic analysis of impact on clinical outcomes in the United States

Jose M. Pimiento[1], David C. Evans[2], Renay Tyler[3], Albert Barrocas[4], Beverly Hernandez[5], Krysmaru Araujo-Torres[6], Peggi Guenter[7]; ASPEN Value Project Scientific Advisory Council

J Gastrointest Oncol 2021;12(2):864-873 | http://dx.doi.org/10.21037/jgo-20-326

Disease state/condition
1. Gastrointestinal cancer
Carcinoma, squamous cell
2. Anal cancer
Anus neoplasms
3. Colorectal cancer
Colorectal neoplasms
4. Esophageal cancer
Esophageal neoplasms
Esophagectomy
5. Pancreatic cancer
Pancreatic neoplasms
AND Polymorphism, single nucleotide
6.Stomach OR gastric cancer
Gastrectomy
Stomach neoplasms

POST-OP EARLY vs LATE EN FOR GI CANCER PATIENTS

POST-OP ENHANCED RECOVERY AFTER SURGERY vs CONVENTIONAL GROUP FOR GI CANCER PATIENTS

TOTAL ANNUAL SAVINGS FOR CMS WITH NUTRITIONAL SUPPORT FOR GI MALIGNANCIES = $242,000,000

- Pimiento J, et al. J Gastrointest Oncol 2021

INPATIENT REPORTING

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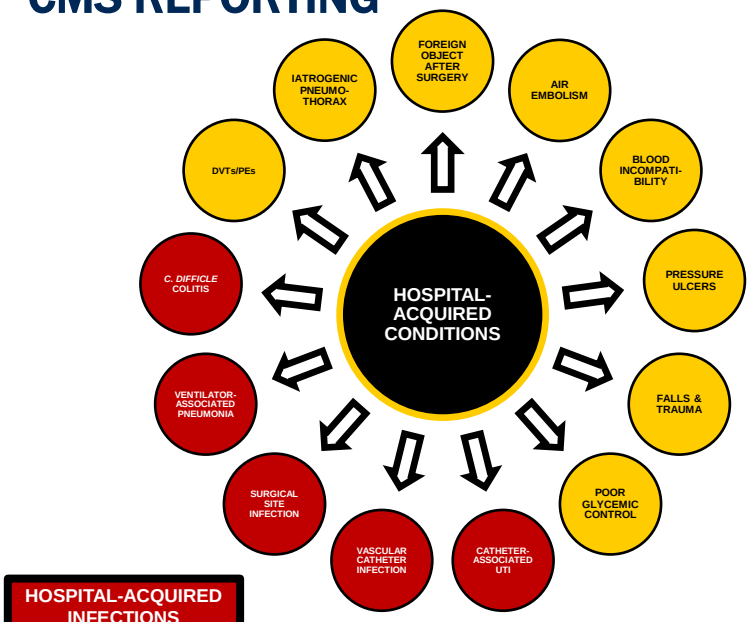
CMS REPORTING



↓ ADVERSE EVENTS

↑ QUALITY IMPROVEMENT INITIATIVES

↑ INCREASE REIMBURSEMENT

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QUALITY IMPROVEMENT

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QUALITY IMPROVEMENT

ASPECT	IMPROVEMENT	ACCOUNTABILITY	RESEARCH
AIM	IMPROVE CARE	COMPARISON, CHOICE, ASSURANCE	NEW KNOWLEDGE
METHODS			
TEST OBSERVABILITY	TEST OBSERVABLE	NO TEST, EVALUATE CURRENT PERFORMANCE	TEST BLINDED OR CONTROLLED
BIAS	ACCEPT CONSISTENT BIAS	MEASURE/ADJUST TO REDUCE BIAS	DESIGN TO ELIMINATE BIAS
SAMPLE SIZE	"JUST ENOUGH"; SMALL SEQUENTIAL SAMPLES	OBTAIN 100% OF AVAILABLE, RELEVANT DATA	"JUST IN CASE" DATA
FLEXIBILITY OF HYPOTHESIS	CHANGES AS LEARNING TAKES PLACE	NO HYPOTHESIS	FIXED HYPOTHESIS
TESTING STRATEGY	SEQUENTIAL TESTS	NO TESTS	ONE LARGE TEST
DETERMINING IF CHANGE IS IMPROVEMENT	RUN CHARTS/ CONTROL CHARTS	NO CHANGE FOCUS	HYPOTHESIS, STATISTICAL TESTS (T-TEST, F-TEST, CHI SQUARE) P VALUES
CONFIDENTIALITY	DATA USED ONLY BY THOSE INVOLVED IN IMPROVEMENT	DATA AVAILABLE FOR PUBLIC REVIEW	RESEARCH SUBJECTS' IDENTITIES PROTECTED

- Solberg LI et al. Jt Comm J Qual Improve 1997

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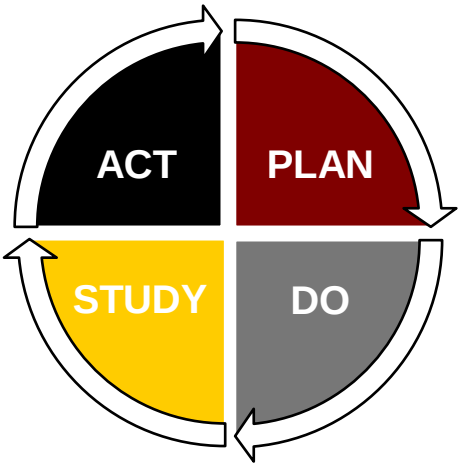
QUALITY IMPROVEMENT

PDSA MODEL



"COMPLEX RULES GIVE RISE TO STUPID BEHAVIORS. SIMPLE RULES GIVE RISE TO ADAPTIVE BEHAVIOR."

- DEE HOCK
FOUNDER OF VISA

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QI PROJECT

IMPROVING GI CLINIC ACCESS FOR NEW PATIENTS

AIM STATEMENT: To improve GI clinic access for new patients ≤ 10 days by assessing past statistics (2012), evaluating current demand (December 2012 and January 2013), implementing a plan of action to improve outcomes to >70% by March 2013.

PLAN: Access to subspecialty clinics is an extremely important healthcare issue for patient care, referring physicians, and downstream revenue. Our plan is to track current practice over the past year at the Digestive Health Center, implement changes within the system, and compare it to those performed from January 2013 to present.

STUDY THE RESULTS: (Use Indicator Names)
1. Numerator = # of new patients ≤ 10 days
2. Denominator = # of total new patients

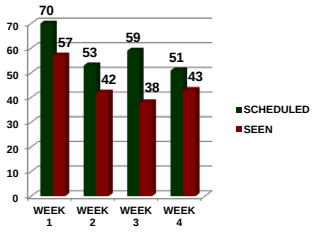
Performance Indicator: % new patients ≤ 10 days

DO: Monitor monthly adequacy rates for 2012 pre-intervention/post-intervention (January 2013 – present)
1. Establishment of a new Director of Ambulatory Services – Matthew Bechtold MD, FASGE, FACG – 12/1/12
2. Education of faculty regarding improvement of return patient intervals – 12/5/12
3. Education of faculty and fellows regarding open access clinics – 12/5/12
4. Creation and implementation of new clinic directive in which all PSRs are to notify new Director of Ambulatory Services is a new patient cannot be seen ≤ 10 days – 12/26/12
5. Patient scheduled by Director of Ambulatory Services to met goal by asking the referred provider to overbook, overbook the Director's clinic, or by creating a special clinic after-hours to see patient (unless otherwise specified by patient) – 12/26/12
6. Implementation of open access model – 1/14/13 – Front-log Emphasis
7. Implementation of 60/40 rule – 60% returns and 40% new – 7/10/13

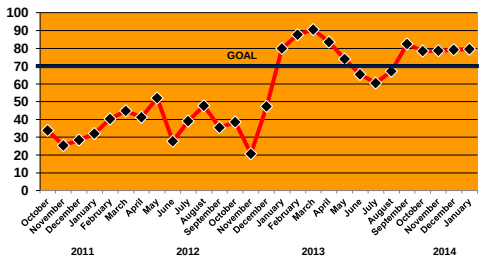
ACT:
1. Education performed – 12/5/12
2. Policy initiated – 12/26/12
3. Open access initiated – 1/14/13

TEAM MEMBERS:

Matthew Bechtold	Ashley Sliger	Laura Burnett	GI
Melisa Mathews	Belle Florence	Pamela Hicks	Faculty & Fellows



Demand Analysis – December 2012



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Learning Assessment Questions Summary

- Is there value in identification and treatment of malnutrition?
  - ≫Absolutely, in both improved patient outcomes and $
- Is inpatient reporting important?
  - ≫Yes it is. Although cumbersome, inpatient reporting improves patient outcomes, stimulates QI initiatives, and increases reimbursement
- How do you initiate a QI project?
  - ≫Identify a problem → Do a PDSA cycle → Remeasure → Repeat

References List

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2. Bechtold ML, Regunath H, Tyler R, Guenter P, Barrocas A, Collins NA. Impact of a nutrition support therapy on hospital-acquired infections: A value analysis. Nutr Clin Pract 2021;36(5):1034-1040.
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4. Solberg LI, Mosser G, McDonald S. The three faces of performance measurement: improvement, accountability, and research. Jt Comm J Qual Improv 1997;23(3):135-47.

THANK YOU

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Implementation of Malnutrition Quality Measures

A Practical Journey

Ken Nepple, MD FACS

Clinical Professor of Urology. Associate Chief Medical Information Officer. Physician Value Officer. Clinical Documentation Improvement Advisor.

University of Iowa Hospitals & Clinics
Iowa City, Iowa

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Disclosure

- No commercial relationships to disclose.

Learning Objectives

Upon completion of this educational activity, the learner will be able to:

1. Describe how to spark interest in “win-win” malnutrition quality improvement
2. Discuss development of discrete data sources within the EHR for the Global Malnutrition Composite Score via technology-enabled workflow
3. Report our prior initial experience with malnutrition electronic clinical quality measures and future plans

Emphasis on practical advice on how to move forward malnutrition QI at **your** institution

Broad overview of initial malnutrition pilot

Our initial journey

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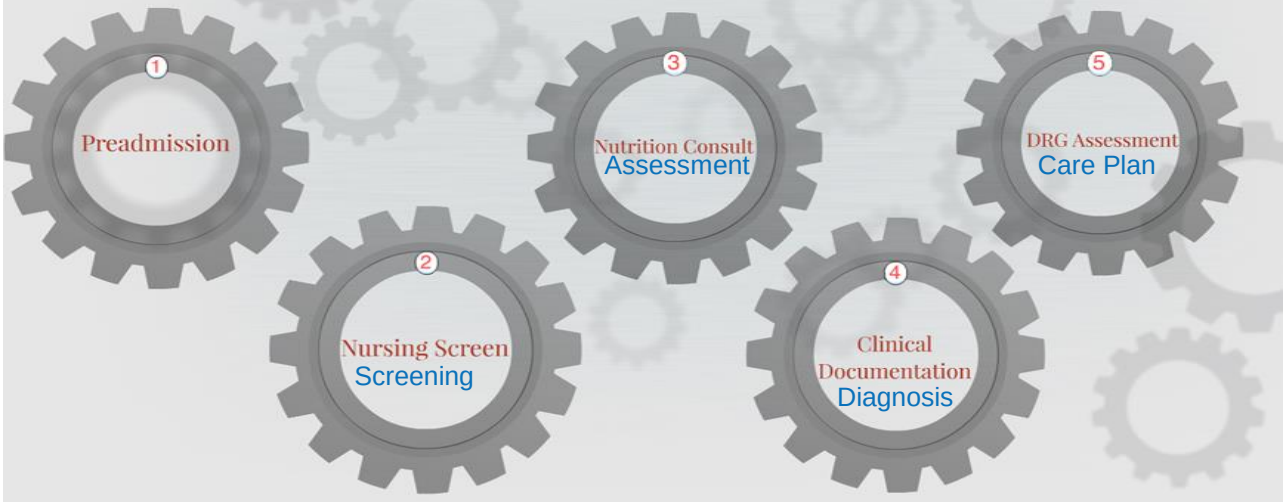
Malnutrition Pilot

Interdisciplinary team: Nursing, Nutrition, Physician (GI and Surgical), APPs, Informatics, Clinical Documentation Improvement, Finance, Quality/Safety.



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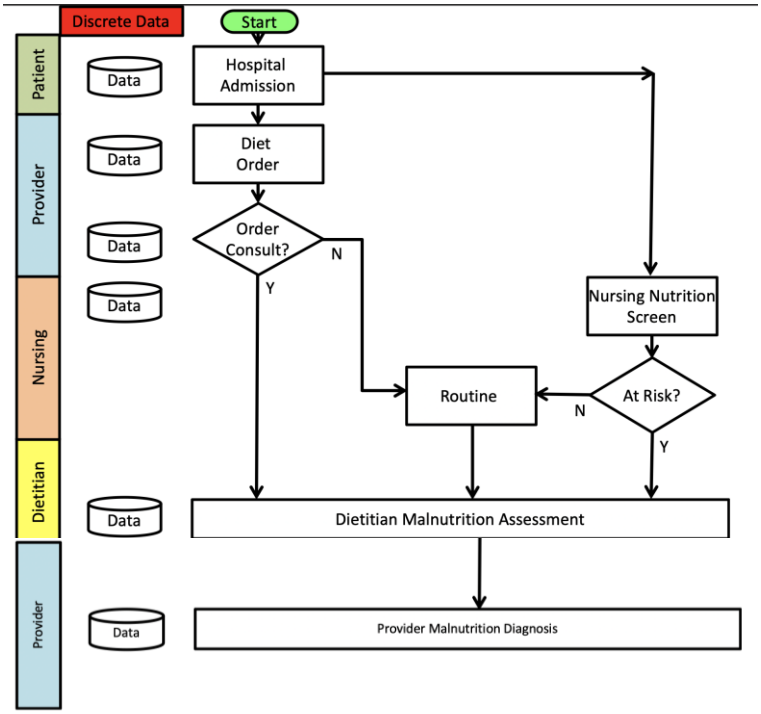

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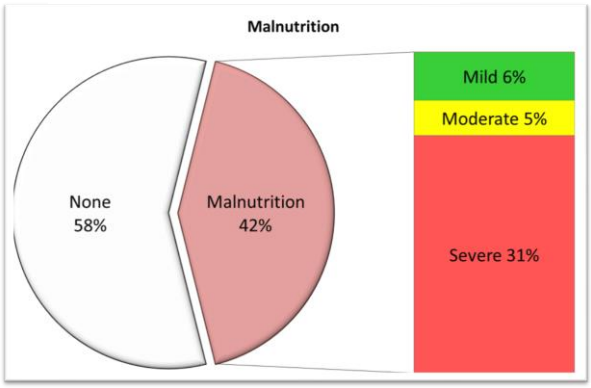
Malnutrition Pilot Outcomes

Ken Nepple MD
Urology/HCIS

- **Multidisciplinary group** refined the process of inpatient evaluation, with a focus on communication and accurate malnutrition assessment in the EHR (electronic health record) using the Academy/ASPEN Consensus Statement.
- Malnutrition pilot of the new workflow on two inpatient units during a four month period (no additional FTEs required to implement).
- Malnutrition was then identified in 42% of patients on the two pilot units.
- Favorable impact on allowable length of stay and hospital reimbursement
- Hospital administration almost immediately added 6FTEs (from 25 to 31 FTEs to 33 to 37)
- The pilot malnutrition workflow was implemented hospital-wide.
- Preoperative and cancer center: no dietitian/program to dedicated dietitian/program (from "Hy-Vee grocery to comprehensive cancer center")

Results of Malnutrition Pilot on Two Units



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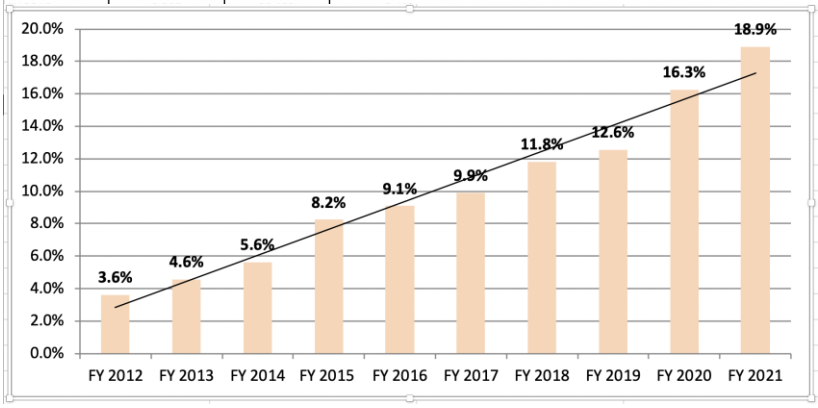
Improvement in Hospital Malnutrition Diagnosis

ADULTS	Acute Inpatients with Malnutrition	Acute Inpatients	% of Acute Inpatients with Malnutrition
FY 2012	932	25,800	3.6%
FY 2013	1,188	25,921	4.6%
FY 2014	1,477	26,249	5.6%
FY 2015	2,182	26,500	8.2%



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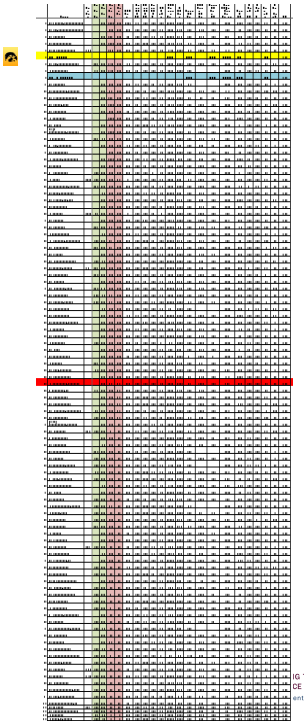

Pilot Evaluation of Electronic Clinical Quality Measures

Our initial journey

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Data set creation

PRACTICE APPLICATIONS
Professional Practice

eat right.

Enhancing Identification and Management of Hospitalized Patients Who Are Malnourished: A Pilot Evaluation of Electronic Quality Improvement Measures

Kenneth G. Nepple, MD, FACS; Conrad M. Tobert, MD; Angel F. Valladares, MPH; Kristi Mitchell, MPH; Martin Yadrick, MBI, MS, RDN, FAND

ABSTRACT
Malnutrition in hospitalized patients has long been recognized as a contributor to poor patient outcomes; malnutrition often leads to higher costs of care. Thus, it is important to improve the identification of patients who are at risk for malnutrition or already malnourished and to initiate treatment to optimize outcomes. The Malnutrition Quality Improvement Initiative (MQii) is based on a dual-pronged approach consisting of a set of four electronic clinical quality measures and a Quality Improvement Toolkit that support delivery of high-quality malnutrition care by clinicians including nurses, registered dietitian nutritionists, and physicians. A large pilot hospital validated the four malnutrition electronic clinical quality measures (screening for nutrition risk, assessment, care plan, diagnosis), demonstrating their value in support of continuous quality improvement for hospital-based malnutrition care with the ultimate goal of better patient outcomes while reducing health care costs.
Funding/Support Publication of this supplement was supported by Abbott. The Academy of Nutrition and Dietetics does not receive funding for the MQii. Avalere Health's work to support the MQii was funded by Abbott.
J Acad Nutr Diet. 2019;119(9 Suppl 2):532-539.

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Data set creation

- Write rules to build an adult inpatient cohort from retrospective data *(can also be done real time)*

Keith Burrell
Application Developer at The University of Iowa Health Care

2,583 adult discharges in a month

87 discharges/day

873 65 and older per 30 days

33.8% 65 and older

UNIVERSITY OF IOWA HEALTH CARE Health Care Information Systems

- Some moderate effort in building a report
- Worked 1 on 1 with a reporting analyst
- Able to identify all hospital discharges >24 hours and pull discrete data elements including (age, diagnoses, discrete data, labs, time stamps, grouper based diagnoses)

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Nursing Nutritional Screening

Component Measure 1: Inpatient hospitalizations for patients with a current screening for malnutrition risk performed at the time of admission.

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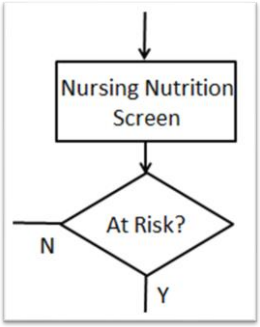
Screening (initial data was for within 24 hours of admit)



Nutrition Screen: Nutrition Screening/Adult
Are you currently on CVN/PVN or tube feeding?: No
Have you recently been on tube feedings or TPN, or have a nutritional access device in place?: No
Have you been eating poorly because of a decreased appetite?: No
Food intake less than 50% of usual for greater than 7 days?: No
Have you lost or gained weight without trying within the last 6 months?: No
Chew/swallow difficulty: No
Emaciated: Yes
Chronic non-healing wound: No
Post Surgery greater than 77 y/o: Yes
Recent vomiting/diarrhea?: No
Pregnant/lactating: Not pregnant/lactating or unknown
OB patient only: N/A
Food allergies: No
Score/nutrition adult: 8

Data available:
- Questionnaire in EHR
- Entered by nursing as a “hard stop”

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Admission Nursing Nutrition Screen

Old Screen

Question	Point Total
CVN/PVN/tube feed	7
Food intake less than 50% of usual greater than 7 days	4
NPO/clear liquids greater than 5 days	4
Unintentional wt loss/gain greater than 9 lbs	4
Chew/swallow difficulty	4
Emaciated/Chronic non-healing wound	4
Post surgery greater than 77 y/o	4
Vomit/diarrhea greater than 3 days	2
Food allergies	2
Pregnant/lactating	4
OB patient only	7

FNS Documentation Guidelines:

- Nutrition screen must be completed by nursing within 24 hours of admission
- Once the nutrition screen is complete an initial assessment must be done by FNS staff as follows:
  - Patients with a total score of 7 or above (**high risk**) need to be assessed within 48 hours of the screen
  - Patients with a total score of 4-6 (**moderate risk**) need to be assessed within 72 hours of the screen
  - Patients with a score of 3 or lower (**low risk**) need to be rescreened by FNS staff on a weekly basis (every calendar week)
- Follow-up notes are due on a weekly basis (every calendar week)

Our documentation guidelines have not changed since we have implemented the new screen. Let me know if you have any questions

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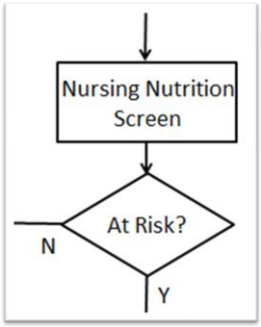
Screening (this data was for within 24 hours of admit)

Table 2. Baseline eCQM[a] performance scores for pilot hospital

Measure title (eCQM #)	Measure denominator	Measure numerator	Performance rate (%)[b]
1: Completion of a malnutrition screening within 24 h of admission	2,756	1,949	**70.7**



Lessons Learned:
- Feasible
- ICU vs. non-ICU workflow

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Dietitian Assessment

Component Measure 2: Inpatient hospitalizations for patients with a current assessment for malnutrition performed from an "at risk" finding in a current malnutrition screening.

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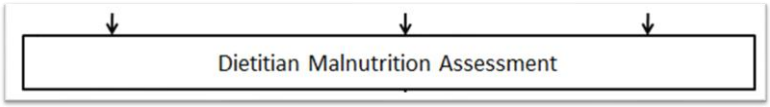
Assessment (within 24 hours of "at risk" screen for this data)

Data available:

- Dietitian data in consult note needed to be developed using technology-enabled workflow



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Defining malnutrition assessment at the Project Meeting

- **Defining Malnutrition:** The team identified that malnutrition is best defined using a 2012 Consensus Statement of the Academy of Nutrition and Dietetics (Academy) and American Society for Parenteral and Enteral Nutrition (ASPEN): Characteristics Recommended for the Identification and Documentation of Adult Malnutrition based on a minimum of 2 of the 6 clinical characteristics of inadequate energy intake, weight loss, fat loss, muscle loss, edema, reduced grip strength.

FROM THE ACADEMY
Consensus Statement

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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)

Jane V. White, PhD, RD, FADA; Peggi Guenter, PhD, RN; Gordon Jensen, MD, PhD, FASPEN; Ainsley Malone, MS, RD, CNSC; Marsha Schofield, MS, RD; the Academy Malnutrition Work Group; the A.S.P.E.N. Malnutrition Task Force; and the A.S.P.E.N. Board of Directors

ABSTRACT
The Academy of Nutrition and Dietetics (Academy) and the American Society for Parenteral and Enteral Nutrition (A.S.P.E.N.) recommend that a standardized set of diagnostic characteristics be used to identify and document adult malnutrition in routine clinical practice. An etiologically based diagnostic nomenclature that incorporates a current understanding of the role of the inflammatory response on malnutrition's incidence, progression, and resolution is proposed. Universal use of a single set of diagnostic characteristics will facilitate malnutrition's recognition, contribute to more valid estimates of its prevalence and incidence, guide interventions, and influence expected outcomes. This standardized approach will also help to more accurately predict the human and financial burdens and costs associated with malnutrition's prevention and treatment, and further ensure the provision of high quality, cost effective nutritional care.
J Acad Nutr Diet. 2012;112:730-738.

ACADEMY/ASPEN clinical characteristics
A minimum of two characteristics is recommended for diagnosing either non-severe (moderate/mild) or severe malnutrition

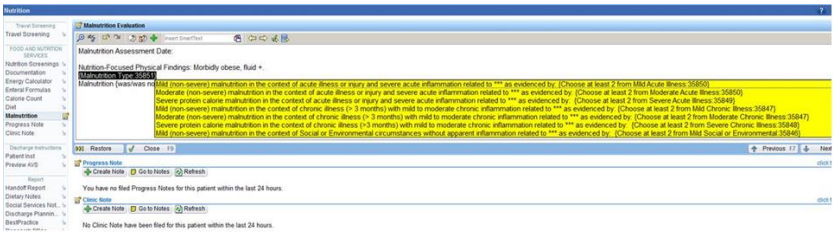
	Malnutrition of acute illness/injury		Malnutrition of chronic illness (> 3 months)		Impaired social/environmental circumstances	
Type of malnutrition	Non-severe malnutrition	Severe malnutrition	Non-severe malnutrition	Severe malnutrition	Non-severe malnutrition	Severe malnutrition
Energy intake	< 75% intake of estimated energy needs for > 7 days	≤ 50% intake of estimated energy needs for ≥ 5 days	< 75% intake of estimated energy needs for ≥ 1 month	≤ 75% intake of estimated energy needs for ≥ 1 month	< 75% intake of estimated energy needs for ≥ 3 months	≤ 50% intake of estimated energy needs for ≥ 1 month
Weight loss	1–2% in 1 week 5% in 1 month 7.5% in 3 months	> 2% in 1 week > 5% in 1 month > 7.5% in 3 months	5% in 1 month 7.5% in 3 months 10% in 6 months 20% in 1 year	> 5% in 1 month > 7.5% in 3 months >10% in 6 months >20% in 1 year	5% in 1 month 7.5% in 3 months 10% in 6 months 20% in 1 year	> 5% in 1 month > 7.5% in 3 months > 10% in 6 months > 20% in 1 year
Subcutaneous fat loss Muscle loss Fluid accumulation	Mild	Moderate	Mild	Severe	Mild	Severe
Grip strength	Normal	Reduced	Normal	Reduced	Normal	Reduced

Malnutrition Pilot Specifics For Dietitian Assessment

- Improved Consult Workflow

*** Discrete data**

- Changed Dietitian Assessment and Chart Note Format
  - ≫SmartData for malnutrition diagnosis based on ASPEN/Academy Consensus Statement criteria to assess as mild vs moderate vs severe malnutrition (subsequently evolved to also include GLIM Criteria when applicable)



Malnutrition Assessment	
Malnutrition assessment date:	
Dietitian evaluation:	Moderate (non-severe) malnutrition
Type:	Acute illness/injury
Malnutrition etiology:	
Energy intake:	Less than 75% intake of estimated energy needs for greater than 7 days
Weight loss:	Greater than 5% in 1 month
Subcutaneous fat loss:	Moderate
Muscle loss:	Moderate
Fluid accumulation:	Moderate
Grip strength:	Reduced

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Assessment
(within 24 hours of "at risk" screen for this data)

Table 2. Baseline eCQM[a] performance scores for pilot hospital

Measure title (eCQM #)	Measure denominator	Measure numerator	Performance rate (%)[b]
2: Completion of a nutrition assessment for patients identified as at risk for malnutrition within 24 h of a malnutrition screening	346	98	**28.3**

Lessons Learned:
- Timing in workflow (24 vs 48 hr)
- Need to improve data granularity

Physician Diagnosis

Component Measure 3: Inpatient hospitalizations for patients with a current malnutrition diagnosed as a result of a "moderate" or "severe" malnutrition status from a current malnutrition assessment.

Malnutrition Pilot Specifics For Physician Diagnosis

- Improve Workflow using SmartPhrase (or similar EHR tool) *** Discrete data**
  - ≫ Electronic health record dot phrase (.malnutritiontext) can be used to insert the assessment and present on admission status from the dietitian assessment into progress notes, and can serve as a prompt for physician documentation

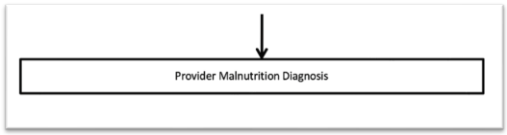
Abbrev	Expansion
MALNUTRITIONTEXT	Pertinent Text from the FNS Malnutrition Evaluation

Academy/ASPEN Consensus Statement Clinical Characteristics for Malnutrition Identification

Malnutrition - 10/09/22 1310

Malnutrition assessment date	
Malnutrition assessment date:	10/09/22
Nutrition-focused physical findings	
Nutrition-focused physical findings:	Mildly prominent clavicles, all other muscle and adipose stores adequate. Wearing SCDs on both legs. No edema, skin WNL per nursing head to toe.
Type of Malnourishment	
Type:	Acute illness/injury
Acute illness/injury Malnutrition Characteristics	
Energy intake:	Less than 75% intake of estimated energy needs for greater than 7 days
Weight loss:	WNL
Subcutaneous fat loss:	WNL
Muscle loss:	WNL
Fluid accumulation:	WNL
Grip strength:	Not assessed
Malnutrition Evaluation	
Was malnutrition present on admission?	No
Dietitian evaluation:	Nutrition risk but not malnourished

LIP documentation of malnutrition:
My assessment is the patient has a diagnosis of {Malnutrition Severity:39141}. |



Also Encourage use of problem list

Malnutrition Pilot Specifics For Physician Diagnosis

*** Discrete data**

LIP documentation of malnutrition:
My assessment is the patient has a diagnosis of {Malnutrition Severity:39141}.

mild protein calorie malnutrition. Malnutrition will be monitored, evaluated, and treated by {nutrition managem
moderate protein calorie malnutrition. Malnutrition will be monitored, evaluated, and treated by {nutrition mani
severe protein calorie malnutrition. Malnutrition will be monitored, evaluated, and treated by {nutrition manage
no malnutrition. Nutritional status will continue to be monitored
dietitian consult ordered, waiting on nutritional assessment
***
My assessment is the patient has a diagnosis of {Malnutrition Severity:39141}.

Diagnosis Documentation

Table 2. Baseline eCQM[a] performance scores for pilot hospital

Measure title (eCQM #)	Measure denominator	Measure numerator	Performance rate (%)[b]
Appropriate physician documentation of a malnutrition diagnosis[c]	32	18	**56.3**

Data available:

- Discrete problem/diagnosis list in EHR
- Text not available as discrete data

Lessons Learned:

- Challenge
- Variability in documentation
- Education on CDI (clinical documentation improvement)

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Care Plan

Component Measure 4: Inpatient hospitalizations for patients with a current nutrition care plan performed as a result of a "moderate" or "severe" malnutrition status from a current malnutrition assessment.

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Care Plan

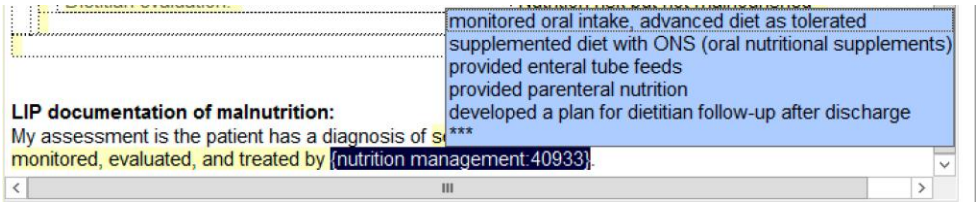
Table 2. Baseline eCQM[a] performance scores for pilot hospital

Measure title (eCQM #)	Measure denominator	Measure numerator	Performance rate (%)[b]
Nutrition care plan for patients identified as malnourished after a completed nutrition assessment[b]	32	27	**84.4**

Data available:
- In the EHR, but was not readily abstracted electronically as discrete data point

Lesson Learned:
- Opportunity for improved workflow for communication and to capture discrete data

Care Plan



- Over time, lead to development of an Advanced Nutritional Consult Service which is staffed by GI physician, dietitian, and pharmacist
- Currently in the process of transitioning dietitian care plan and ONS (oral nutritional supplements) to discrete data

Conclusions

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Advice

- Emphasis on practical advice on how to move forward some malnutrition QI at **your** institution
- Automate some of the process
- Make some improvement in some thing
- Small things, done consistently, make major impact

  -David Allen

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Reference List

1. White JV, Guenter P, Jensen G, Malone A, Schofield M, et al. Consensus statement of the Academy and ASPEN: characteristics recommended for the identification and documentation of adult malnutrition. J Acad Nutr Diet 2012; 112: 730-738.
2. Nepple KG, Tobert CM, Valladares AF, Mitchel K, Yadrick M. Enhancing identification and management of hospitalized patients who are malnourished: a pilot evaluation of electronic quality improvement measures. J Acad Nutr Diet 2019; S32-S39.

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Learning Objectives

Upon completion of this educational activity, the learner will be able to:

1. Define the composite score measure and its focus on components of the nutrition care process: screening, assessment, documenting diagnosis and implementing nutrition care plan
2. Review how adopting the measure and using a quality improvement process can benefit patient care, providers, and hospital outcomes
3. Discuss how the interprofessional team can partner with administrators to adopt and report on the composite score measure to improve patient outcomes and support health equity

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Questions

- Submit your questions using the interactive panel on the left.
- Click **Questions** to submit your questions directly to the faculty.
- For technical support, please use the **Request Support** button at the bottom left of the webinar player.

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Acknowledgement

This program was

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Companion Fact Sheet

NEW! Global Malnutrition Composite Score (GMCS): How to Use for Hospital Quality Reporting

October 19, 2022, 12:00 PM ET

Interprofessional Implementation of the Global Malnutrition Composite Score Webinar

Faculty

Christina Badaracco, MPH, RD, LDN, Avalere Health, Washington, DC

Sharon M. McCauley, MS, MBA, RDN, LDN, FADA, FAND, Quality Management, Academy of Nutrition and Dietetics, Chicago, IL

Matthew L. Bechtold, MD, FACP, FASGE, FACG, AGAF, Department of Medicine, University of Missouri School of Medicine, Columbia, MO

Kenneth G. Nepple, MD, Department of Urology, University of Iowa Carver College of Medicine, Iowa City, IA

Ainsley Malone, MS, RD, CNSC, FAND, FASPEN, American Society for Parenteral and Enteral Nutrition, Silver Spring, MD

Webinar Objectives

- Define the composite score measure and its focus on components of the nutrition care process: screening, assessment, documenting diagnosis, and implementing the nutrition care plan.
- Review how adopting the measure and using a quality improvement process can benefit providers, patient care, and hospital outcomes.
- Discuss how the interprofessional team can partner with administration to adopt and report on the composite score measure to improve patient outcomes and support health equity.

Audience

This webinar is especially relevant to healthcare providers who will benefit from learning about the implementation of the nutrition inpatient reporting quality measure. This is a free non-CE webinar.

Register at nutritioncare.org/MAW22-GMSC

What is the Global Malnutrition Composite Score (GMCS)?

- The GMCS is an evidence-based electronic clinical quality measure with four components reflecting inpatient malnutrition identification and care.
- It was adopted by the Center for Medicare and Medicaid Services (CMS) as part of the Hospital Inpatient Quality Reporting (IQR) Program.
- It is the first and only nutrition-focused quality measure endorsed by the National Quality Forum and included in the CMS payment program.

GMCS MEASURE

1. Screen for Malnutrition Risk
2. Conduct Nutrition Assessment
3. Document Malnutrition Diagnosis
4. Develop Nutrition Care Plan

Implementation of GMCS clinical quality components is associated with improved patient/hospital outcomes as demonstrated by:

- Reducing hospital length of stay, infection rates, and 30-day hospital readmission[1]
- Lowering healthcare costs[2]
- Identifying at-risk patients
- Documenting relevant nutrition diagnosis and discharge plans[3, 4]

Find out about this measure and how you can use it in your quality efforts!

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