

December 4, 2023

Pre-Rule Making Measure Review Committee
Partnership for Quality Measurement
MMSsupport@battelle.org

RE: Feedback on Release of Measures Under Consideration List for 2023-2024 Review Cycle

We commend CMS' recognition of the significant impact malnutrition has on all adult patient outcomes, as well as its consideration of the benefits of the expansion of the Global Malnutrition Composite Score (MUC2023-114) as an eCQM when extended to all adult ages 18 years or older. CMS has long recognized the prevalence of malnutrition, its negative impact on patient outcomes, and the persistent barriers to high-quality malnutrition care.^{1,2} 2018 data indicates that more than 30% of hospitalized patients have malnutrition depending on the patient population and the criteria for assessment³ and that approximately 20 percent of hospitalized patients require complex nutrition plans and dietary orders. Recent studies have shown that 1 in 3 hospitalized adult patients are at risk of malnutrition⁴, however, malnutrition is not always identified and diagnosed, as only 8% of non-neonatal and non-maternal adult hospitalizations were coded for malnutrition³. Ongoing malnutrition research supports identifying, diagnosing, and treating malnutrition at all ages.⁵⁻⁹

In addition, **the recognition of malnutrition as a critical issue for all adults continues to support the alignment with the *Meaningful Measures 2.0 Initiative*, which strives to identify high priority areas for quality of care, build value-based care and promote health equity.** CMS has an immediate opportunity to advance the objectives of the initiative by expanding the age of the inpatient malnutrition eCQMs in the hospital pay-for-reporting program(s). The below provides a summary of how the expansion of the age coverage to all adults aligns with the *Initiative*:

1. Using high-value quality measures impacting key quality domains.

The burden of malnutrition on patients in the hospital setting as detailed in a report published by the AHRQ Healthcare Cost and Utilization Project (HCUP) is of great importance as it affects all key quality domains. The report mentions that malnourished hospitalized patients are three to five times more likely to experience in-hospital death and experience a 56 % higher rate of hospital 30-day readmissions compared with non-malnourished patients.⁶ Furthermore, malnutrition is a key health disparity that HCUP data demonstrate is more likely to affect African American patients.

¹Fed Register Vol. 78, No. 26, February 2013

²Fed Register Vol. 79, No. 91, May 12, 2014

³Agency for Healthcare Research and Quality. Malnutrition in Hospitalized Adults.

<https://effectivehealthcare.ahrq.gov/products/malnutrition-hospitalized-adults/protocol>. Accessed December 4, 2023.

⁴Sauer AC, Goates S, Malone A, et al. Prevalence of Malnutrition Risk and the Impact of Nutrition Risk on Hospital Outcomes: Results From nutritionDay in the U.S. *JPEN J Parenter Enteral Nutr.* 2019;43(7):918-926. doi:10.1002/jpen.1499

⁵Skipper, A., Coltman, A., & Tomesko, J. (2019). Evidence Analysis Library Systematic Review of Adult Malnutrition (Undernutrition) Screening. *J Acad Nutr Diet.*

⁶Gomes F, Baumgartner A, Bounoure L, et al. Association of Nutritional Support with Clinical Outcomes Among Medical Inpatients Who Are Malnourished or at Nutritional Risk: An Updated Systematic Review and Meta-analysis. *JAMA Netw Open.* 2019;2(11): e1915138. doi:10.1001/jamanetworkopen.2019.15138.

⁷Uhl S, Siddique SM, McKeever L, Bloschichak A, D'Anci K, Leas B, Mull NK, Tsou AY. Malnutrition in Hospitalized Adults: A Systematic Review. Comparative Effectiveness Review No. 249. (Prepared by the ECRI-Penn Medicine Evidence-based Practice Center under Contract No. 75Q80120D00002.) AHRQ Publication No. 21(22)-EHC035. Rockville, MD: Agency for Healthcare Research and Quality; October 2021. DOI: 10.23970/AHRQEPCER249.

⁸Boaz M, Kaufman-Shriqui V. Systematic Review and Meta-Analysis: Malnutrition and In-Hospital Death in Adults Hospitalized with COVID-19. *Nutrients.* 2023 Mar 6;15(5):1298. doi: 10.3390/nu15051298. PMID: 36904295; PMCID: PMC10005527.

⁹Barrett ML, Bailey MK, Owens PL. Non-maternal and Non-neonatal Inpatient Stays in the United States Involving Malnutrition, 2016. ONLINE. August 30, 2018. U.S. Agency for Healthcare Research and Quality. Available: www.hcupus.ahrq.gov/reports.jsp.

Malnutrition, defined as a nutrition imbalance including under-nutrition and over-nutrition, is a pervasive, but often under-diagnosed, condition in the United States. Malnutrition prevalence is exacerbated among patients who are already ill: chronic diseases such as diabetes, cancer, and gastrointestinal, pulmonary, heart, and chronic kidney disease. Chronic disease treatments can result in changes in nutrient intake and ability to use nutrients, which can lead to malnutrition. The Global Malnutrition Composite Score quality measure is vital to implementation of malnutrition quality improvement and advancing and standardizing nutrition care in hospitalized patients. Lack of evaluation and management can result in negative health and financial outcomes as malnourished adults have been found to utilize more health services with more visits to physicians, hospitals, and emergency rooms. Nutrition interventions have been repeatedly shown to positively impact health status and be cost-effective in improving health outcomes among malnourished patients.

2. Prioritizing outcome and patient-reported measures.

Malnutrition is a patient-safety risk and has been shown to be an independent predictor of negative patient outcomes, including mortality, lengths of hospital stay, readmissions, and hospitalization costs.¹⁰⁻¹¹ Malnourished patients are also more likely to develop pressure ulcers,¹² infections,¹³ post-operative complications¹⁴⁻¹⁵ and experience falls.¹⁶⁻¹⁷ In addition, malnutrition in the hospital is associated with increased cost of care and the economic burden of disease-associated malnutrition in the U.S. was estimated to be as high as \$157 billion in 2014, with \$15.5 billion directly linked to cost of treatment.¹⁸ Average hospital costs for all non-neonatal and non-maternal hospital stays were \$12,900, while patients diagnosed with malnutrition had hospital costs averaging up to \$22,200 depending on the type of malnutrition indicated.⁶ In 2016, those costs were reported to be \$17,500 per readmission, 26-34% higher compared to patients readmitted without malnutrition.

Furthermore, malnutrition is a state of deficit, excess, or imbalance in protein, energy or other nutrients that adversely impacts an individual patient's body form, function, and clinical outcomes.¹⁹ For many adults, the lack of adequate protein and the loss of lean body mass are particularly significant problems. This occurs whether the individual is underweight, or counterintuitively overweight or obese, because it is inadequate protein, not fat that is the problem. The importance of malnutrition prevention, identification and intervention for at-risk and malnourished individuals is magnified by malnutrition's impact on independence, well-being, and the severity of medical conditions and disabilities. Therefore, all patients need to remain engaged in their nutritional care and understand the signs and symptoms of malnutrition, including communicating their nutritional status and history to their providers. This measure supports the interdisciplinary teams focus on the patient's preferences regarding food choices, timing of meals, and/or self-feeding strategies within their individual, social and environmental circumstances. The data generated from the clinical processes promoted by the eCQMs is critical for comprehensive discharge planning inclusive of nutrition care and helps inform patients and caregivers on how to continue improving their nutritional status after discharge.

¹⁰Lim SL, Ong KC, Chan YH, Loke WC, Ferguson M, Daniels L. Malnutrition and its impact on cost of hospitalization, length of stay, readmission and 3-year mortality. *Clinical nutrition* (Edinburgh, Scotland). 2012;31(3):345-350.

¹¹Hiller LD, Shaw RF, Fabri PJ. Difference in Composite End Point of Readmission and Death Between Malnourished and Nonmalnourished Veterans Assessed Using Academy of Nutrition and Dietetics/American Society for Parenteral and Enteral Nutrition Clinical Characteristics. *JPEN J Parenter Enteral Nutr.* 2016 Sep 8. pii: 0148607116668523.

¹²Lee JY, Kim HI, Kim YN, et al. Clinical Significance of the Prognostic Nutritional Index for Predicting Short- and Long-Term Surgical Outcomes After Gastrectomy: A Retrospective Analysis of 7781 Gastric Cancer Patients. *Medicine* (Baltimore). 2016;95(18):e3539.

¹³Yi PH, Frank RM, Vann E, Sonn KA, Moric M, Della valle CJ. Is potential malnutrition associated with septic failure and acute infection after revision total joint arthroplasty? *Clin Orthop Relat Res.* 2015;473(1):175-82.

¹⁴Kwag SJ, Kim JG, Kang WK, Lee JK, Oh ST. The nutritional risk is a independent factor for postoperative morbidity in surgery for colorectal cancer. *Ann Surg Treat Res.* 2014;86(4):206-11.

¹⁵Choi WJ, Kim J. Nutritional Care of Gastric Cancer Patients with Clinical Outcomes and Complications: A Review. *Clin Nutr Res.* 2016;5(2):65-78.

¹⁶Vivanti A, Ward N, Haines T. Nutritional status and associations with falls, balance, mobility and functionality during hospital admission. *J Nutr Health Aging.* 2011;15(5):388-91.

¹⁷Suominen MH, Puranen TM, Jyväkorpi SK, et al. Nutritional Guidance Improves Nutrient Intake and Quality of Life, and May Prevent Falls in Aged Persons with Alzheimer Disease Living with a Spouse (NuAD Trial). *J Nutr Health Aging.* 2015;19(9):901-7.

¹⁸Snider J, et al. Economic burden of community-based disease-associated malnutrition in the United States. *JPEN J Parenter Enteral Nutr.* 2014;38:55-165.

¹⁹Correia, M. I. and D. L. Waitzberg. The impact of malnutrition on morbidity, mortality, length of hospital stay and costs evaluated through a multivariate model analysis. *Clin Nutr.* 2003;22(3):235-239.

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3. Transforming measures to be fully digital and incorporating all-payer data.

The GMCS (MUC2023-114) has been developed to utilize data from all patients admitted to a hospital. It includes all payer data and is considered an eCQM. Use of data in this format and applicability to all payers, aids in easing implementer burden while encouraging high-quality malnutrition care for all adult inpatients.

4. Aligning measures across value-based programs and across partners, including CMS, federal, and private entities.

The Global Malnutrition Composite Score (CMS 986) has been identified as a measure that aligns with CMS' priorities and initiatives, particularly health disparities and patient-centered delivery of care. It has also been identified as addressing the 2023 Healthcare Effectiveness and Data Information Set (HEDIS) Social Need Screening and Intervention. In addition, the GMCS meets the nutrition screening requirement under The Joint Commission's Requirements to Reduce Health Care Disparities Leadership Standard. By expanding the measure age of coverage to adults 18 years of age and older, CMS will support meeting this goal for all adults, not just those 65 years of age or older.

Furthermore, addressing malnutrition in the healthcare setting aligns with the National Quality Strategies established by the Agency for Healthcare and Quality. Malnutrition can be directly linked to the NQS' three aims, which include:

- Better care by making healthcare patient centered, reliable, accessible, and safe.
- Better health by supporting proven interventions to address behavioral, social, and environmental determinants of health.
- Lower cost of healthcare for individuals, families, employers, and government.

5. Developing and implementing measures reflecting social drivers/determinants of health (SDOH).

Malnutrition is a pressing clinical area associated with poor patient outcomes and increased healthcare costs across all care settings. The burden of malnutrition on patients in the hospital setting as detailed in a report published by the AHRQ HCUP demonstrates that malnutrition is a public health issue. Furthermore, malnutrition is a key health disparity issue that HCUP data demonstrate is more likely to affect African American patients. Because food insecurity caused by economic and social burdens can increase the risk of malnutrition, addressing malnutrition and its root causes, as done through the thorough assessment and care planning of the Registered Dietitian Nutritionists (RDN) and the interdisciplinary team in the health care setting, can therefore support the reduction of health disparities.²⁰⁻²¹

It is important to note that, in addition to aligning with several CMS goals, the proposed expansion (MUC2023-114) of the age range from 65 to 18 years of age or older for the GMCS (CMS 986) is not expected to result in any additional reporting burden for institutions that choose to select this measure as one of the 3 self-selected eCQMs because the data element of age already is being collected

²⁰Avalere Health. (2022). *Leveraging Inpatient Malnutrition Care to Address Health Disparities*. Retrieved July 27, 2023, from <https://avalere.com/insights/leveraging-inpatient-malnutrition-care-to-address-health-disparities>

²¹Buelsing Sowards, D., McCauley, S., & Munoz, N. (2022). Impacting Malnutrition, Food Insecurity, and Health Equity: An Overview of Academy of Nutrition and Dietetics Priorities and Future Opportunities. *J Acad Nutr Diet*, 122(10), S7-S11. doi:10.1016/j.jand.2022.06.018



CONCLUSION

The Academy of Nutrition and Dietetics and Avalere appreciate the continuous engagement of CMS pursuant to tackling malnutrition and improving quality care at the national level. In years past, we have commended CMS for moving forward with approving the GMCS as an eCQM.

The importance of identifying, diagnosing, and treating malnutrition continues to grow. Further, the relationship between malnutrition and food insecurity and its effects on health equity has been proven to be of importance and continues to be studied. The existing Global Malnutrition Composite Score eCQM has been extensively tested, incentivizing the adoption of evidence-based malnutrition care best practices that are associated with reduced costs and improved patient outcomes.

Given the merit of the expansion of the measure age range to 18 years of age or older as described above, we strongly recommend that CMS consider adoption of the MUC 2023-114 into the Hospital IQR program.

We thank CMS for the continued engagement, and we look forward to working with you on future integration of these measures in the acute care setting and efforts to improve malnutrition quality of care across all care settings.

Sincerely,

A handwritten signature in black ink, appearing to read "Anne Coltman".

Anne Coltman, MSHA, MS, RDN, FAND, FACHE
Senior Director Quality, Standards, and Interoperability
Academy of Nutrition and Dietetics
Commission on Dietetic Registration
120 S. Riverside Plaza, Suite 2190
Chicago, IL 60606

A handwritten signature in black ink, appearing to read "Shelby Harrington".

Shelby Harrington, RN
Principal
Avalere Health
1201 New York Avenue, Suite 1000
Washington, DC 23005