Open Access

OBM Geriatrics

LIDSEN Publishing Inc.

Communication

The Global Malnutrition Composite Score Quality Measure-Seize this Opportunity to Benefit Older Adult Care and Health Equity!

Philip Brown [1, †], Dana Buelsing Sowards [2, †], Mary Pittman [3, †], Gisele Leger [4, †], Susan DeSipio Manns [5, †, *]

1. Destination Health LLC, Wilmington, NC 28401, USA; E-Mail: pbrownmd@icloud.com
2. Academy of Nutrition and Dietetics, 120 South Riverside Plaza, Suite 2190. Chicago, Illinois 60606-6995 USA; E-Mail: dbuelsing@eatright.org
3. Public Health Institute, 555 12th St, Oakland, CA 94607, USA; E-Mail: mpittman@phi.org
4. Morrison Healthcare, 400 Northridge Rd. #600, Atlanta, GA 30350, USA; E-Mail: GiseleLeger@iammorrison.com
5. Cullari Communications Global, 1412 Skyline Vista Court, Russellville, AR 72802, USA; E-Mail: smanns@cullarigroup.com

† These authors contributed equally to this work.

* **Correspondence:** Susan DeSipio Manns; E-Mail: smanns@cullarigroup.com

Academic Editor: Mary Beth Arensberg

Special Issue: Malnutrition, Frailty and Quality of Life in Older Adults

OBM Geriatrics
2023, volume 7, issue 2
doi:10.21926/obm.geriatr.2302237

Received: February 27, 2023
Accepted: May 21, 2023
Published: May 25, 2023

Abstract

In August 2022, the Centers for Medicare and Medicaid Services (CMS) adopted its first-ever nutrition electronic clinical quality measure (eCQM), known as the Global Malnutrition Composite Score (GMCS) as part of the Inpatient Hospital Quality Reporting (IQR) Program. Starting in January 2024, hospitals can self-select to include the GMCS as one of three optional eCQMs for reporting. This article focuses on the importance of addressing malnutrition to improve the overall health of the aging population, reduce preventable healthcare expenditures and achieve greater health equity. A detailed explanation of the development

of the GMCS, its components, its utility, and the critical role of registered dietitian nutritionists (RDNs) in promoting its adoption are discussed. The successful implementation of malnutrition quality measures and their positive impact on patient care and business operations is exemplified through the experience of the Novant Health New Hanover Regional Medical Center of Southeastern North Carolina. A recommended process for RDNs to pursue to secure the adoption of the GMCS at their respective hospitals and supporting resources are reviewed.

Keywords
Malnutrition; food insecurity; nutrition security; global malnutrition composite score (GMCS); inpatient quality reporting (IQR) program; inpatient prospective payment system (IPPS); electronic clinical quality measures (eCQMs); malnutrition quality improvement initiative (MQii); registered dietitian nutritionists (RDNs)

1. Introduction

The first ever nutrition electronic clinical quality measure (eCQM), known as the Global Malnutrition Composite Score (GMCS) [1], was one of three health equity-focused measures adopted by the Centers for Medicare and Medicaid Services (CMS) in August 2022 [2]. Hospitals can elect to include the GMCS as one of three optional eCQMs to satisfy reporting requirements for the Hospital Inpatient Quality Reporting (IQR) Program beginning in January 2024 [3]. The GMCS is a culmination of a decade-long effort initiated by the Academy of Nutrition and Dietetics (Academy) in collaboration with Avalere Health and other stakeholders affiliated with the Malnutrition Quality Improvement Initiative (MQii) to improve care and outcomes for hospitalized adults aged 65 and older [4]. The GMCS illustrates the importance of the association between nutrition and health equity, the essential role of RDNs on hospital interdisciplinary teams, and addressing malnutrition as a cause of preventable healthcare expenditures.

In October 2022, during the Academy's Food & Nutrition Conference & Expo (FNCE) meeting, Gisele Leger, National Director of Clinical Nutrition at Morrison Healthcare, moderated a panel on "Advancing Malnutrition Quality Improvement and Health Equity: Opportunities to Lead Change." The panel was supported by the Abbott Nutrition Health Institute and it emphasized the immediate and significant opportunity for RDNs to serve as leaders in advocating for malnutrition quality improvement and for their hospitals to include the GMCS as one of the reported eCQMs starting in January 2024. Also underscored by the panel was the relevance of the GMCS to the healthcare sector's focus on implementing interventions to address health disparities and social determinants of health.

Initially, the panel focused on the adverse medical and economic effects of malnutrition which is prevalent among those 65 years and older but often unrecognized and rarely diagnosed. The influence of social determinants of health on malnutrition and health inequities was next reviewed, along with the important role of public policy in tackling the many issues that are connected to malnutrition, such as food and nutrition insecurity. The panel then outlined the extensive GMCS development process, from the Academy's quality strategies task force in 2013 identifying

malnutrition as a key area for quality improvement to the August 2022 publication of the GMCS in the CMS final rule for the FY 2023 Inpatient Prospective Payment System (IPPS). A member of the MQii Learning Collaborative also shared experiences with the implementation of the GMCS to help RDNs understand the time commitment and challenges that may arise as their hospitals adopt the GMCS. Lastly, recommendations and resources to support RDNs in advocating for malnutrition quality improvement and for the inclusion of the GMCS in their Hospital IQR Program reporting for January 2024 were reviewed. This article summarizes the three panel presentations, which are meant to empower RDNs in their efforts to educate their peers and upper management about malnutrition quality improvement, the GMCS, and the multiple benefits of its use in the hospital setting. The content shared in the article can also be beneficial for other members of the healthcare team, including geriatric hospitalists, and for the broader field of geriatrics and those focused on improving health outcomes for older adults.

2. Data Demonstrate the Need for the Global Malnutrition Composite Score

The presence, burden, and cost of malnutrition in our healthcare system are significant. Fifty percent of older adult patients presenting to a hospital are either malnourished or at risk of being malnourished [5]. The cost of disease-associated malnutrition among older adults is estimated at $51 billion annually [6]. Protein calorie malnutrition hospital stays are twice as long and three times more likely to result in death [7]. While the literature typically describes the prevalence of malnutrition in hospitals as between 20% and 50% [8], data from the Healthcare Cost and Utilization Project (HCUP), which monitors all of the discharge ICD-10 codes, indicate that nationwide only about nine percent of patients are discharged or diagnosed with malnutrition [9]. Beyond the acute care setting, malnutrition is estimated at 14-51% in the post-acute care setting and 6-30% in the community [10]. Implementation of GCMS should increase the identification and diagnosis of malnutrition in the hospital environment and encourage timely treatment that continues post-discharge.

3. Promoting Health Equity by Addressing Malnutrition

Dr. Mary Pittman presented "Health Equity and Malnutrition: Health Policy Interventions" based upon her work as President and CEO of the Oakland-based Public Health Institute and as a nationally recognized leader in community health safety net providers and Medicaid care for vulnerable populations. Several terms were defined (Box 1) [11, 12] to provide a solid foundation for the discussion about the link between malnutrition and health equity. The interconnection between these is shown in Figure 1 [12].

Box 1 Important Health Equity Terms and Definitions.

- Health disparities: preventable differences in health status among disadvantaged individuals and communities linked to inequitable distribution of social, political, economic, educational, medical, and environmental resources which negatively impact health outcomes.
- Health care disparities: patterns related to health care among different patient populations, including differences in health insurance coverage, access to/use of care, quality of care.
- Health equity: the absence of avoidable, unfair, or remediable differences among groups of people, whether those groups are defined socially, economically, demographically or geographically; the state in which all individuals have a fair opportunity to attain their full health potential and that no one should be disadvantaged from achieving this potential.
- Health inequities: differences in health status or the distribution of health determinants among different populations.
- Social determinants of health: the conditions in which individuals are born, grow/learn, work, live, and age, including economic, environmental, political, and social. policies/systems

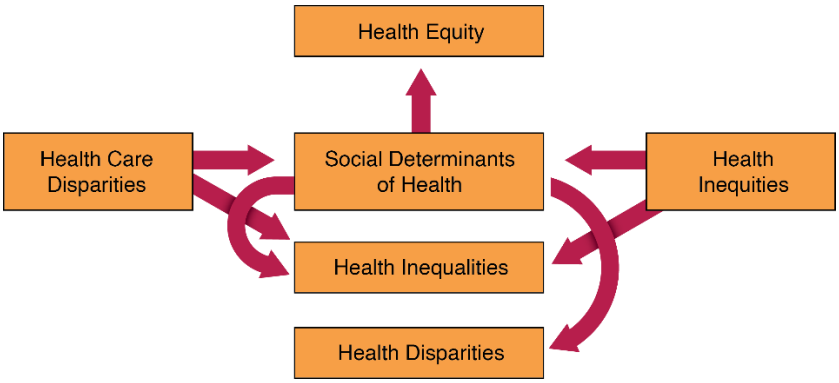

Figure 1 The Interrelationship Between Health Equity, Health Disparities, and Social Determinants of Health [12].

Numerous circumstances, influences, and policies contribute to an individual's health. Poor health is not random but results from generations of health disparities rooted in systemic discrimination, oppression, and lack of access. Clean air, water, affordable places to live, and ample nutritious foods are essential for health. When these vital basic needs are lacking or inconsistently available, health disparities can occur. For example, lack of access to nutritious food increases risk for malnutrition.

It is imperative to understand malnutrition in all its forms. Malnutrition can be caused by overconsumption of nutrient-deficient foods, under-consumption of nutrient-dense foods, or even a combination of both. Historically, safety net programs have narrowly focused on food insecurity, but recently an important shift has occurred from the limited lens of food insecurity to the more comprehensive nutrition security. Food insecurity is insufficient or unreliable access to food, while nutrition security is about consuming adequate nutrients (beyond calories) in an appropriate

balance that contribute to overall health. Nutrition security means consistent access to safe, nutritious, and affordable foods essential for optimal health and emphasizes health equity [13].

The hospital is a good healthcare setting to identify and intervene for malnutrition, including providing comprehensive nutrition therapies to patients and implementing discharge care plans. Linking the patient to community nutrition services is essential to prevent readmissions and have a sustainable impact on promoting health and reducing health disparities. Some pilot programs utilizing hospital community benefit funds and grants to support food prescription programs have resulted in bringing farmers markets to the hospital campus or partnering to ensure that the "prescriptions" for healthy fresh food are accepted at local farmers markets and food vendors. Early results have been promising in improving access to healthier foods and better nutrition outcomes [14].

There is growing momentum in the healthcare system and among governing bodies to take swift and comprehensive action to dismantle structural barriers to health equity [15-17]. CMS recently took great strides to support efforts within hospitals to advance health equity, including the approval of the GMCS which will improve the identification of malnourished patients and those who are at risk in the acute care setting [3]. The GMCS will capture valuable data necessary to better understand and address disparities that are barriers to achieving health equity.

The approval of the GMCS by CMS is an example of policy change at the federal agency level that advances long-term sustainable support for nutrition security and is aligned with health equity. While the adoption of the GMCS is extremely important, additional state and local policy changes are necessary to reform programs and counter entrenched historical inequities that are the root causes of nutrition insecurity. For example, to help reduce some of the barriers to affordable produce, California Governor Newsom recently signed a bill to establish a grant program to support the expansion of the Supplemental Nutrition Assistance Program's (SNAP's) Electronic Benefit Transfer (EBT) card to certified farmer's markets and tribal farmer's markets on reservations [18].

No single agency, organization, or policy can ensure nutrition security and promote health equity. Effectively addressing malnutrition requires a collection of approaches and collaboration between communities and healthcare centers. As is captured in (Figure 2) achieving nutrition security and health equity may require a systems approach that involves influencing policies, communities, organizations, interpersonal relationships, and individuals [19]. RDNs have a critical role to play in prompting change in all these spheres. By seeking opportunities to serve as leaders and engaging at different "levels" within the system, the actions of RDNs can translate into improved nutritional health for patients and communities. Helping hospitals understand and adopt the Global Composite Nutrition Score is a meaningful way for RDNs to demonstrate their value and the multiple benefits of focusing on malnutrition and implementing corrective interventions.

Figure 2 A Comprehensive Systems Approach to Achieving Nutrition Security and Health Equity [19]. Used with permission from the Academy of Nutrition and Dietetics.

4. Development of the Global Malnutrition Composite Score (GMCS)

Dana Buelsing Sowards, Director of Practice Competence with the Commission on Dietetic Registration, the credentialing agency for the Academy, discussed "Implications of the GMCS for RDNs" and described the measure development process and specific components. The August 2022 adoption of the Global Malnutrition Composite Score by CMS as one of three health equity-focused measures in the Hospital IQR Program was a significant achievement for the nutrition community. Figure 3 [20] provides highlights of the development process. Nearly 10 years earlier malnutrition was identified as an important focal area of the Academy's Quality Strategies Task Force. The Academy, along with Avalere Health and those involved with developing and implementing the MQii, initially discussed measurement concepts [4].

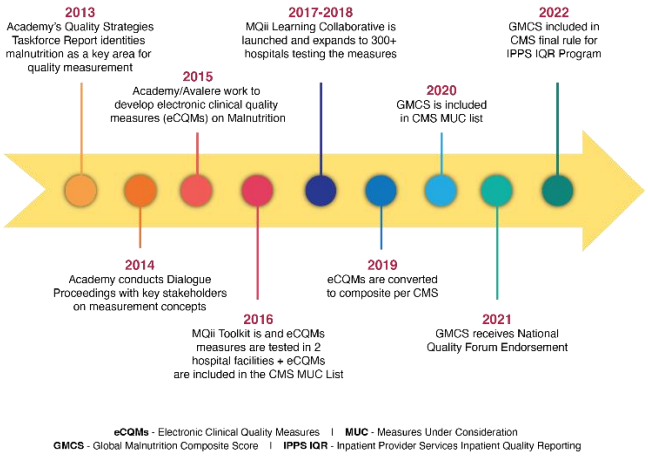

Figure 3 GMCS Development Process and Milestones [20]. Used with permission from the Academy of Nutrition and Dietetics.

By 2015, four separate eCQMs were developed which later became the components of the Global Malnutrition Composite Score. In 2016, the eCQMs were included in the CMS Measures Under Consideration (MUC) list and tested over the next few years in various facilities capturing actual patient data and demonstrating the impact of quality improvement initiatives in real time. In 2019, the eCQMs were converted per recommendations from the National Quality Forum (NQF)

and CMS into a Global Malnutrition Composite Score. In 2020, the GMCS measure was included in the MUC list as the newly combined measure incorporating the prior four eCQMs [4].

The GMCS received the National Quality Forum endorsement in 2021, which culminated a very long review process and was an important recognition. Many NQF groups and committees reviewed the GCMS, and it was recommended for inclusion in the hospital IQR program and the Medicare and Medicaid Promoting Interoperability Programs for Eligible Hospitals and Critical Access Hospitals. This endorsement means the GMCS is considered best in class, has successfully passed all of the criteria of the scientific methods panel, and meets reliability, validity, and many other components identified by the NQF [4].

The final step involved the inclusion of the GCMS in the CMS IPPS FY 2023 proposed rule in April of 2022 and subsequent adoption in the August final rule. Beginning in January 2024 hospitals can choose to use the GMCS as one of three optional eCQMS to satisfy their obligations for the IQR Program [3, 4].

An in-depth understanding of the GCMS is essential for RDNs to advocate for its adoption at their hospitals. Figure 4 [21] describes the four components of the GCMS, while Figure 5 [21] demonstrates the clinical workflow and responsible individuals. First, the patient is screened for malnutrition risk (component one) which is often conducted by nursing, and may be conducted by an RDN. If malnutrition risk is identified, the RDN conducts the nutrition assessment (component two). When indicated, the RDN collaborates with a physician, such as a physician nutrition specialist, to document a malnutrition diagnosis (component three). The RDN works with other interdisciplinary team members across the hospital to develop and implement the nutrition care plan (component four). Lastly, a discharge plan for the individual is created to ensure continuity of care and referral to community resources.

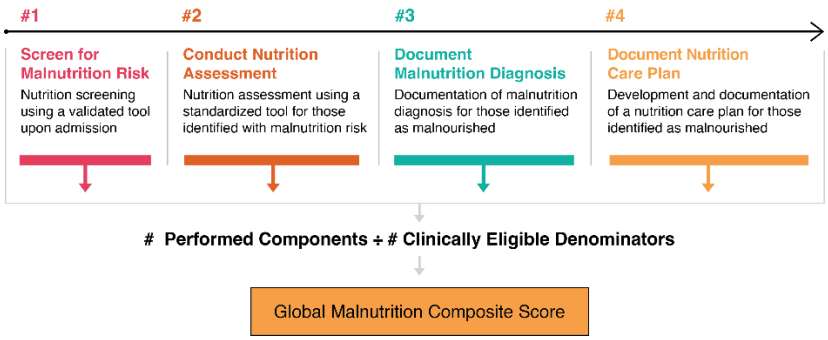

Figure 4 Individual Components of the GMCS [21]. Used with permission from the Malnutrition Quality Improvement Initiative (MQii). (Figure current as of January, 2023).

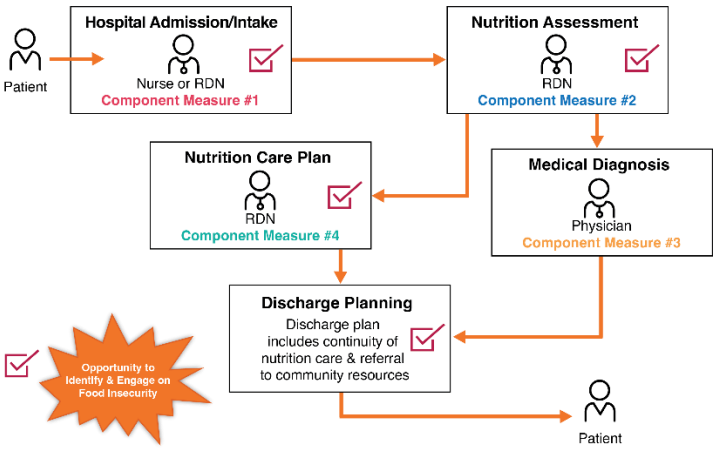

Figure 5 Incorporating the GMCS Components into the Hospital Workflow [21]. Used with permission from the Malnutrition Quality Improvement Initiative (MQii). (Figure current as of January, 2023).

The Global Malnutrition Composite Score is a ratio, and it measures the components of clinically eligible denominators with the composite score itself (Figure 6). Each component-the nutrition screening, assessment, malnutrition diagnosis, and nutrition care plan – is evaluated over the number of hospitalizations of patients who have stayed longer than 24 hours and are 65 years and older [21]. A higher ratio indicates that more components of the numerator were completed per hospitalization for patients who are identified as being at risk of malnutrition. This ratio can assist hospitals and RDNs in identifying where quality improvement is most needed throughout that process.

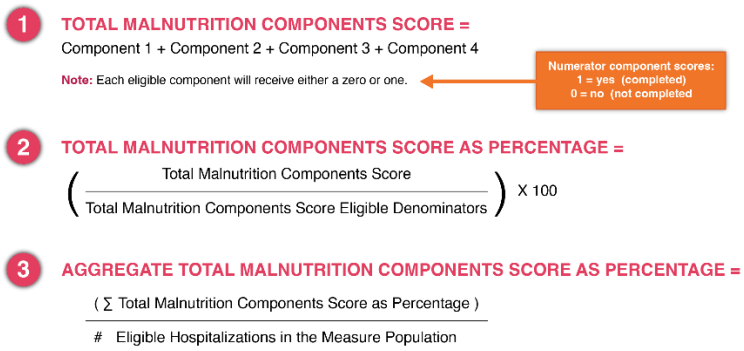

Figure 6 The GMCS Components Build on One Another to Determine a Final Composite Score Performance [21]. Used with permission from the Malnutrition Quality Improvement Initiative (MQii). (Figure current as of January, 2023).

Quality improvement is key to successfully reporting on the GMCS. Indeed, hospitals should initiate a malnutrition quality improvement program within their institution as the *first* step in preparing to report on the GMCS. Further information on initiating a quality improvement program--including a Quick Start Guide for Quality Improvement and Reporting on the GMCS-is available from the Malnutrition Quality Improvement Initiative [22].

The benefits of quality improvement and the GMCS should be considered as RDNs begin the process of educating peers, other health professionals, and upper management in advance of the measure being available to satisfy IQR Program requirements starting in January 2024. Multiple potential benefits are identified in Box 2 [10, 11].

Box 2 Implementing malnutrition quality measurement may help improve.

- Identification of patients with nutrition risk who may require additional screening for food insecurity.
- Referrals for additional evaluation by an RDN.
- Documentation of the appropriate malnutrition diagnosis and associated care plan.
- Provision and documentation of early and effective interventions for patients with malnutrition and food insecurity.
- Documentation of provider concerns regarding malnutrition and food insecurity for communication to the next-in-line provider.
- Care coordination and discharge planning.
- Connections to resources post-discharge, such as prescriptions for food pharmacies, access to meal boxes, home-delivered meals, and linkages to those community-based organizations addressing nutritional needs.
- Delivery of care that is appropriate based on the acuity of the patient's condition and is patient-centered.
- Reduced mortality rates and length of stays associated with protein-calorie malnutrition.
- Prevention of diseases and infections associated with poor nutrition.
- Recognition of social determinants which may be contributing to malnutrition.
- Promotion of health equity through targeted nutritional interventions.

Adopting the GMCS for IQR Program reporting as of January 2024 requires preparation and collaboration across many hospital departments. The GMCS provides a valuable opportunity for RDNs to assume a leadership role in guiding and supporting their facilities through the implementation process. Improved identification of malnutrition and delivery of appropriate interventions can improve patients' health, promote health equity, and positively impact hospital finances.

5. Experience with Implementing Malnutrition Quality Measures – Implications for the GMCS

Dr. Philip Brown, former Chief Community Impact Officer for Novant Health, described "The Impact of Nutrition Quality Measures within Health Systems." Novant Health has an established commitment to health equity, and its efforts have been recognized by the American Hospital Association and the National Committee for Quality Assurance (NCQA). The implementation process for nutrition quality measures at the Novant Health New Hanover Regional Medical Center (NHRMC) was discussed. NHRMC, an 800 bed tertiary care hospital, is Novant Health’s flagship hospital in the Coastal Region of Southeastern North Carolina. Novant plans to expand the use of nutrition quality measures to its fifteen other hospitals in the future.

The movement to incorporate nutrition quality measures at the NHRMC began in 2016 with the formation of an interdisciplinary team to spread organizational awareness about malnutrition. With

health equity established as one of three pillars of the facility's new strategic plan, RDNs and other leaders gained a firm foundation to advocate for adopting nutrition-focused quality measures. Joining the MQii Learning Collaborative in 2017 provided valuable expertise and information to facilitate the implementation of nutrition quality measures [23].

In the acute care setting, improving nutritional status and advancing health equity start with the initial inpatient diagnosis of malnutrition. RDNs functioning within the hospital and those conducting home visits in the community are instrumental in identifying social determinants of health which often contribute to malnutrition. As Figure 7 [23] illustrates, leadership from the local hospital RDN is essential for coordinating the multiple individuals and organizations that have a significant role in addressing various malnutrition-related issues. Effective use of community programs and resources can reduce hospital admissions of individuals at risk for malnutrition and prevent readmissions after discharge. With commitment and collaboration across the healthcare continuum, significant improvements in patient outcomes and hospital performance are achieved, as demonstrated by Figure 8 [23].

Figure 7 The Hospital RDN Has a Pivotal Role in Coordinating Facility and Community Malnutrition Resources [23].

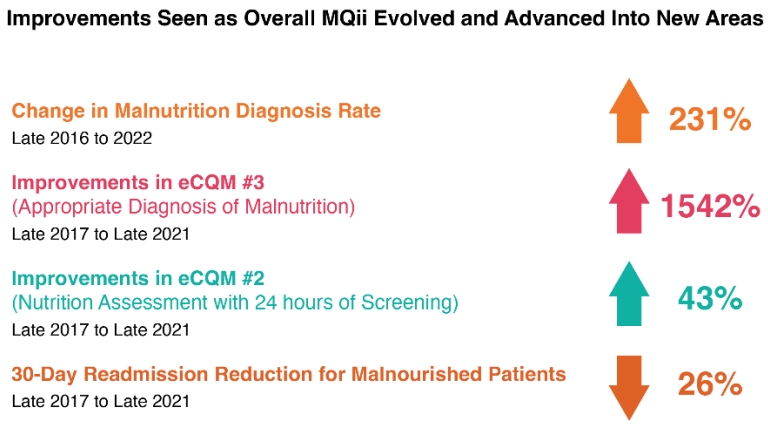

Figure 8 Beneficial Impact of Adopting Malnutrition Quality Improvement at the Novant Health New Hanover Regional Medical Center [23].

6. Empowering RDNs with Resources to Advance Adoption of the GMCS

CMS' adoption of the GMCS as one of three new health equity-focused eCQMs in the IQR Program is a significant development for the nutrition community because it emphasizes the importance of identifying malnutrition in the acute care setting. Using the GMCS can also satisfy internal health system goals to engage in tangible activities that reduce health disparities. Initial emphasis must be placed on communicating with hospital administrators to promote an understanding of the patient and facility benefits of utilizing the GMCS. RDNs should lead collaboration with other departments, such as quality improvement and information technology, to support the implementation and necessary documentation of the new nutrition quality measure and its components in the electronic health record. Other health care professionals at the facility, such as physicians and especially physician nutrition specialists, can be important allies to help educate administrators and peers about the value of the GMCS. The Academy and other collaborators have resources available to help RDNs educate internal stakeholders and initiate malnutrition quality improvement and promote the adoption of the GMCS at their facility.

As RDNs begin initiating discussions about the GMCS at their facility, they should:

1) Understand the basics of quality improvement and prepare to implement a malnutrition quality improvement program. Resources from the Academy include quality focused practice tips available at https://www.cdrnet.org/Quality/.
2) Review the Malnutrition Quality Improvement Initiative (MQii) website, which includes comprehensive resources on all the components of MQii, information on the GMCS and educational resources to help RDNs in their communications to internal stakeholders, access to a quick start guide and toolkit, and updates on the learning collaborative at https://malnutritionquality.org/.
3) Read the *Roundtable Proceedings: Advancing Health Equity through Malnutrition Quality Measurement* at https://avalere.com/insights/mqii-roundtable-proceedings-malnutrition-and-health-equity.
4) Become informed about the GMCS. Read information from the Academy available at https://www.cdrnet.org/GMCS and in the *Journal of the Academy of Nutrition and Dietetics* September 2019 Supplement at https://www.jandonline.org/issue/S2212-2672(19)X0003-9 and October 2022 Supplement at https://www.jandonline.org/issue/S2212-2672(22)X0002-6.
5) Routinely review information located at www.cdrnet.org/GMCS for current measure updates. Since the GMCS is an eCQM, its content is ever evolving per the CMS annual update process and as new evidence emerges in the nutrition and dietetics field. Information included in this article was current as of January 2023.

7. Conclusion

The GMCS presents an unprecedented opportunity for RDNs to focus their acute care facilities on the critical need to identify malnutrition and implement sustainable interventions. RDNs are the most appropriate healthcare professionals to lead their organizations through the implementation of malnutrition quality improvement and adoption and implementation of the GMCS. Utilizing the GMCS should improve patient outcomes and hospital performance on numerous quality metrics such as reduced healthcare expenditures, readmissions, and cost of care while enhancing the opportunity for greater health equity. Additionally, the information and resources presented in this

article may also be of value to other healthcare professionals and those working in the broader field of geriatrics to help address malnutrition and improve the quality of life for older adults.

Author Contributions

All authors contributed equally to the conception and content of this article.

Funding

Abbott Nutrition Health Institute, Abbott Nutrition provided support for the panel "Advancing Malnutrition Quality Improvement and Health Equity: Opportunities to Lead Change" held at the October 2022 Academy of Nutrition and Dietetics' Food & Nutrition Conference & Expo (FNCE) meeting and the article development. Gisele Leger received compensation to moderate the panel.

Competing Interests

The authors have declared that no competing interests exist.

References

1. Electronic clinical quality measure resource center. Global malnutrition composite score [Internet]. Washington DC: US department of health and human services; 2023 [cited date 2023 January 9]. Available from: https://ecqi.healthit.gov/ecqm/eh/pre-rulemaking/2023/cms986v1.
2. Centers for medicare and medicaid services. New CMS rule increases payments for acute care hospitals and advances health equity, maternal health [Internet]. Baltimore, MD: Centers for medicare and medicaid services; 2022 [cited date 2023 January 9]. Available from: https://www.cms.gov/newsroom/press-releases/new-cms-rule-increases-payments-acute-care-hospitals-and-advances-health-equity-maternal-health.
3. Department of health and human services, centers for medicare & medicaid services. 42 CFR parts 412, 413, 482, 485, and 495. US department of health and human services, centers for medicare and medicaid services; 2022 [cited date 2023 January 9]. Available from: https://public-inspection.federalregister.gov/2022-16472.pdf.
4. Sowards DB, McCauley SM, Munoz N. Impacting malnutrition, food insecurity, and health equity: An overview of academy of nutrition and dietetics priorities and future opportunities. J Acad Nutr Diet. 2022; 122: S7-S11.
5. Kaiser MJ, Bauer JM, Rämsch C, Uter W, Guigoz Y, Cederholm T, et al. Frequency of malnutrition in older adults: A multinational perspective using the mini nutritional assessment. J Am Geriatr Soc. 2010; 58: 1734-1738.
6. Snider JT, Linthicum MT, Wu Y, LaVallee C, Lakdawalla DN, Hegazi R, et al. Economic burden of community-based disease-associated malnutrition in the United States. J Parenter Enter Nutr. 2014; 38: 77S-85S.
7. Barrett ML, Bailey MK, Owens PL. Non-maternal and non-neonatal inpatient stays in the United States involving malnutrition, 2016. U.S. agency for healthcare research and quality; 2018 [cited date 2020 March 29]. Available from: https://www.hcup-us.ahrq.gov/reports/HCUPMalnutritionHospReport_083018.pdf.

8. Barker LA, Gout BS, Crowe TC. Hospital malnutrition: Prevalence, identification and impact on patients and the healthcare system. Int J Environ Res Public Health. 2011; 8: 514-527.
9. Barrett ML, Bailey MK, Owens PL. Non-maternal and non-neonatal inpatient stays in the United States involving malnutrition, 2016. U.S. agency for healthcare research and quality; 2018 [cited date 2022 August 2]. Available from: https://hcup-us.ahrq.gov/reports/ataglance/HCUPMalnutritionHospReport_083018.pdf .
10. Malnutrition quality improvement initiative. Briefing: The value of quality malnutrition care [Internet]. [cited date 2022 August 2]. Available from: https://malnutritionquality.org/wp-content/uploads/briefing-the-value-of-quality-malnutrition-care.pdf.
11. Malnutrition quality improvement initiative. Roundtable proceedings: Advancing health equity through malnutrition quality measurement. Washington DC: Avalere health; 2022 [cited date 2023 January 13]. Available from: https://avalere.com/wp-content/uploads/2022/04/MQii-Roundtable-2022.pdf.
12. Pittman M. Health equity and malnutrition: Health policy interventions. Proceedings of the academy of nutrition and dietetics Food & Nutrition Conference & Expo (FNCE); 2022 October 8-11; Orlando, FL.
13. Blankenship J, Blancato RB. Nutrition security at the intersection of health equity and quality care. J Acad Nutr Diet. 2022; 122: S12-S19.
14. Miller M. Food prescriptions-using healthy food to manage chronic disease and improve community health [Internet]. Stakeholder health; [cited date 2023 February 7]. Available from: https://stakeholderhealth.org/food-prescriptions/.
15. National academies of sciences. Engineering, and medicine; health and medicine division; board on population health and public health practice; committee on community-based solutions to promote health equity in the United States. In: Communities in action: Pathways to health equity. Washington, DC: National Academies Press; 2017.
16. Ndugga N, Artiga S. Disparities in health and health care: 5 key questions and answers [Internet]. San Francisco, California, USA: KFF; 2023 [cited date 2023 January 9]. Available from: https://www.kff.org/racial-equity-and-health-policy/issue-brief/disparities-in-health-and-health-care-5-key-question-and-answers/.
17. American hospital association institute for diversity and health equity. The health equity roadmap [Internet]. Chicago, IL: IFDHE; 2022 [cited date 2023 January 9]. Available from: https://equity.aha.org/.
18. California chapter 14 of division 17 of the food and agricultural code [Internet]. LegiScan; 2022 [cited date 2023 January 9]. Available from: https://legiscan.com/CA/text/SB907/id/2609467/California-2021-SB907-Chaptered.html.
19. A systems approach to accelerating nutrition and health equity. Academy of nutrition and dietetics house of delegates meeting backgrounder; 2020 October 15-16; virtual. Available from: https://www.dnsdpg.org/docs/HOD/Fall-2020-HOD-Meeting-Recap-Final-.pdf.
20. Buelsing Sowards D. Implications of the GMCS for RDNs. Proceedings of the academy of nutrition and dietetics Food & Nutrition Conference & Expo (FNCE); 2022 October 8-11; Orlando, FL.
21. Malnutrition quality improvement initiative. Global malnutrition composite score for IQR [Internet]. MQii; 2023 [cited date 2023 February 10]. Available from: https://malnutritionquality.org/gmcs-for-iqr/.

22. Malnutrition quality improvement initiative. Global malnutrition composite score for IQR-quick start guide [Internet]. MQii; 2023 [cited date January 13]. Available from: https://malnutritionquality.org/starting-qi/quick-start-guide/.
23. Brown P. The impact of nutrition quality measures within health systems. Proceedings of the academy of nutrition and dietetics Food & Nutrition Conference & Expo (FNCE); 2022 October 8-11; Orlando, FL.