



# Global Malnutrition Composite Score: Frequently Asked Questions

Malnutrition Quality Improvement Initiative | *January 2023*



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## General Global Malnutrition Composite Score Information

### 1. What is the Global Malnutrition Composite Score?

The Global Malnutrition Composite Score (GMCS) electronic clinical quality measure (eCQM) assesses the percentage of hospitalizations for adults aged 65 years and older who received optimal inpatient malnutrition care appropriate to their level of malnutrition risk and severity. The GMCS eCQM is comprised of 4 components described in **Table 1**. The GMCS is scored at the hospital level and reflects performance within that institution.

**Table 1. Description of the GMCS Components**

Component Title	Description	Denominator	Numerator
Screening for Malnutrition Risk at Admission	Proportion of inpatient hospitalizations with a screening for malnutrition risk	All patients in the measure population	All patients in the measure population who are documented as at risk for malnutrition via the completed malnutrition screening
Completion of a Nutrition Assessment for Patients who Screened for Risk of Malnutrition	Proportion of inpatient hospitalizations among patients identified as at risk for malnutrition with a nutrition assessment	Patients from the measure population who are documented as at risk for malnutrition via the completed malnutrition screening	Patients at risk of malnutrition who have a completed nutrition assessment documented
Appropriate Documentation of Malnutrition Diagnosis for Patients Identified with Malnutrition	Proportion of inpatient hospitalizations among patients identified as moderately or severely malnourished upon nutrition assessment with an appropriate diagnosis	Patients from the measure population who have a completed nutrition assessment documented with findings of moderate or severe malnutrition	Patients who have been identified as moderately or severely malnourished by the nutrition assessment who also have a documented medical diagnosis of malnutrition in their medical record
Development of a Nutrition Care Plan for Malnourished Patients	Proportion of inpatient hospitalizations among patients identified as moderately or severely malnourished upon nutrition assessment with a documented nutrition care plan	Patients from the measure population who have a documented medical diagnosis of malnutrition in their medical record	Patients with a documented medical diagnosis of malnutrition in their medical record who have a documented nutrition care plan with treatment recommendations to address malnutrition



## 2. How and why was the GMCS developed?

Avalere Health® developed along with the Academy of Nutrition and Dietetics as measure steward the GMCS eCQM as part of the Malnutrition Quality Improvement Initiative (MQii). The MQii is a multi-stakeholder initiative with a mission to advance evidence-based, high-quality, and patient driven care for hospitalized older adults (age 65 and older) who are malnourished or at risk for malnutrition. Avalere first developed and tested a set of [4 malnutrition-focused quality measures](#), which the National Quality Forum (NQF) and Centers for Medicare & Medicaid Services (CMS) recommended combining into 1 composite measure. The GMCS is the first nutrition-focused quality measure in any CMS payment program and the first electronically-specified composite measure. For more information about the earliest version of the GMCS, refer to “[Development and Evaluation of a Global Malnutrition Composite Score](#)” in the *Journal of the Academy of Nutrition and Dietetics (JAND)*. However, note that the measure’s components have changed since that article’s publication.

## 3. How is the GMCS calculated?

The GMCS measure population includes inpatient hospitalizations ≥24 hours for patients ages ≥65 years (with no exclusions). The GMCS is comprised of 4 components that align with steps in the Nutrition Care Process, as shown in **Table 1**.

A hospital’s performance score is based on 3 basic calculations to evaluate performance on the GMCS: 2 for each eligible hospitalization (or episode), and **1 for aggregate performance in the reporting period (i.e., 12 months)**. The 3 calculations include:

- 1) **Total Malnutrition Components Score** = Component 1 + Component 2 + Component 3 + Component 4

(Each eligible component will receive a 1, if it was completed, or a 0, if it was not completed.)

- 2) **Total Malnutrition Components Score as percentage** =

$$\left( \frac{\text{Total Malnutrition Components Score}}{\text{Total Malnutrition Components Score Eligible Denominators}} \right) \times 100$$

- 3) **Aggregate Total Malnutrition Components Score as percentage** =

$$\frac{(\sum \text{Total Malnutrition Components Score as Percentage})}{\# \text{ Eligible Hospitalizations in the Measure Population}}$$

## 4. What information is used to calculate the GMCS?

Eleven data elements are used to calculate the GMCS (which is relatively few elements for an eCQM) and all 11 data elements are readily available in electronic health records (EHRs). Of those 11 elements, 5 are used to calculate other eCQMs, leaving only 6 elements specific to the GMCS. Further, the Malnutrition Screening, Screening Time Stamp, and the Screening Result are linked data elements, as are the Nutrition Assessment, Assessment Time Stamp, and Assessment Result. Each of the GMCS data elements are shown in **Table 2**.

**Table 2. GMCS Data Elements**

GMCS Data Element & Attributes*	#1 Screen	#2 Assess	#3 Diagnose	#4 Care Plan
Inpatient Admission Time+	√	√	√	√
Inpatient Discharge Time+	√	√	√	√
Date of Birth+	√	√	√	√
Completed Malnutrition Risk Screening		√		
Completed Malnutrition Risk Screening Time Stamp	√	√		
Completed Malnutrition Risk Screening Result		√		
Completed Nutrition Assessment		√	√	√
Completed Nutrition Assessment Time Stamp		√	√	√
Completed Nutrition Assessment Result			√	√
Documented Malnutrition Diagnosis+			√	
Completed Malnutrition Diagnosis Time Stamp			√	
Completed Nutrition Care Plan				√
Completed Nutrition Care Plan Time Stamp				√

\*All GMCS data elements are readily available in an EHR

+Data elements used in other eQMs

 Linked data elements

For additional details about the GMCS data elements, refer to the GMCS [specifications manual](#).

## 5. How should hospitals interpret their GMCS result?

The GMCS result is calculated as a percentage, ranging from 0 to 100%. Higher scores indicate better performance and lower scores indicate opportunities for improvement. Hospitals may internally monitor performance on the GMCS and its individual components over time **to facilitate quality improvement for patients who are malnourished or at risk.**

## 6. How is the GMCS used in CMS hospital quality reporting?

The GMCS is included in the Hospital Inpatient Quality Reporting (IQR) Program as 1 of 3 eQMs of which hospitals can self-select to report. Among other requirements, CMS’s [FY 2023 Inpatient Prospective Payment System \(IPPS\) final rule](#) states hospitals must report 3 quarters of data annually for 6 eQMs, including 3 self-selected eQMs. The Hospital IQR Program is a voluntary, pay-for-reporting program. A hospital’s performance in the Hospital IQR Program is tied to its Medicare Annual Payment Update (APU). To receive full Medicare APU for the care hospitals provide, hospitals are required to report data to CMS on specific measures for health conditions common in Medicare patients that typically result in hospitalization.

## Reporting on the Global Malnutrition Composite Score

### 7. When can hospitals report the GMCS?

The GMCS is a new quality measure that will be available for reporting in calendar year (CY) 2024 for hospitals participating in the CMS Hospital IQR Program. GMCS performance data will reflect hospitalizations in CY 2024 and will affect the hospital's future Medicare APU for fiscal year (FY) 2026. Data will be submitted once for the whole calendar year. For additional details on the Hospital IQR Program data submission, refer to the [QualityNet website](#) under the Resources tab.

### 8. How should hospitals support implementation of the GMCS in their EHRs?

The GMCS eCQM is specified for use in EHRs. The machine-readable specifications are available on the [Electronic Clinical Quality Improvement \(eCQI\) Resource Center](#). To support implementation of the GMCS into a hospital's EHR, refer to the following resources on the [GMCS measure website](#):

- **XML-Based Specifications:** an XML document in [Health Quality Measure Format \(HQMF\)](#), which is a standards-based representation of quality measures as electronic documents
- **Human-Readable Specifications:** generated from the XML-based specifications is a human-readable HTML document that allows the XML to be viewed in a web browser
- **Value Set Codes Inventory:** an excel spreadsheet that contains all value sets included in the GMCS, with additional information containing the value set developer, their object identifiers, descriptive names, revision date, code system, code system version used, and all of the concepts in each value set as codes with descriptors

### 9. Because the GMCS is an eCQM, will the criteria from the 4 components automatically be extracted from the hospital's EHR?

No—the fact that a measure is an eCQM does not mean that the data elements are automatically extracted from a hospital's EHR. Hospitals or their contracted vendors are responsible for submission of data to CMS. Subsection (d) hospitals paid by Medicare under the IPPS must meet all of the Hospital IQR Program requirements to avoid a reduction in their APU. For the Hospital IQR Program requirements for participation and data submission refer to the [QualityNet website](#) under the payment determination resources.

### 10. If a hospital does not self-select the GMCS as one of its eCQMs, will the hospital's payment determination be affected by its performance on the GMCS?

Performance on the GMCS will not affect hospitals' payments *whether or not* they self-select to report on the GMCS eCQM. A hospital's payment is based upon submitting the correct data in accordance with the mandatory timeline for the mandatory and self-selected measures. Failure to submit a data set by its corresponding due date results in failure to meet the Hospital IQR Program requirements, thus resulting in a payment reduction.

## 11. What steps can hospitals take in 2023 to prepare for reporting the GMCS in 2024?

Hospitals and health systems can prepare in 2023 for reporting on the GMCS in 2024 by first implementing the recommended care workflow using the following steps:

### 1) Start with Quality Improvement (QI) and Confirm Optimal Care Processes Are in Place

While implementing malnutrition QI is an important step underpinning the GMCS components, reporting on the measure to CMS is a distinct process. Consult our [Quick Start Guide](#) to initiate malnutrition QI programs and share the [measure specifications](#) with your quality and Information Technology (IT) teams as needed to prepare for data collection and reporting in CY 2024.

### 2) Engage Your Leadership

Your hospital needs to have processes and reporting infrastructure in place to report on the GMCS. A variety of stakeholders must be involved in this decision-making. You should first determine the right points of contact in your hospital (e.g., hospital administrators, quality improvement leaders) to advocate for reporting on the GMCS. They may include (but are not limited to):

- Clinical teams (including a champion)
- Quality leaders
- IT staff
- Administrators
- EHR vendor

You may use existing presentations for your own education and to gain support:

- [Brief overview presentation about the GMCS reporting opportunity](#)
- [Full educational presentation about the GMCS reporting opportunity](#)
- [Audience-specific educational presentation about the GMCS reporting opportunity](#) with indications for subsets of slides to use for certain audiences (e.g., hospital administrators, quality teams, etc.)

### 3) Stay Informed About GMCS-Related Materials and Trainings

- Attend upcoming trainings to learn more about the reporting opportunity, as shared on the [GMCS website](#)
- Review the webinar recordings and tools in the [Resources section](#) of this document
- Prepare for necessary training of your hospital staff (including physicians, dietitians, etc.) to document completion of the steps of the malnutrition care workflow in your EHR appropriately to prepare for data collection and reporting in CY 2024

## 12. What information for the GMCS is publicly reported?

Hospitals participating in the Hospital IQR Program are required to display quality data for public viewing on the [Care Compare website](#). Prior to the public release of data, hospitals are given the opportunity to review their data during a 30-day preview period via the Hospital Quality Reporting (HQR) Secure Portal. As part of the Hospital IQR Program, CMS will publicly report eCQM data beginning with CY 2021 reported data. For the GMCS, the hospital's overall percentage—along with the number of included patients and national average—will be reported.

## Implementing Malnutrition Quality Improvement

### 13. Because there is no diagnosis code for “risk for malnutrition” or validated criteria, how should a dietitian determine whether a patient is at risk?

The second component of the GMCS reflects assessment by a registered dietitian nutritionist (RDN) for malnutrition for patients who screened positively for nutrition risk. At this time, there are no validated criteria to use for identification by an RDN. However, the Academy recommends using the [Academy of Nutrition and Dietetics/American Society for Parenteral and Enteral Nutrition’s Six Characteristics Recommended for the Identification and Documentation of Adult Malnutrition](#). Additional details about recommended best practices and tools in the [MQii Toolkit](#) are available on pages 27–29. The 2019 *JAND* article, “[Academy of Nutrition and Dietetics/American Society for Parenteral and Enteral Nutrition Consensus Malnutrition Characteristics: Usability and Association With Outcomes](#),” presents a summary of available literature on the usability, feasibility, validity, and reliability of the consensus malnutrition diagnostic approach and evaluation of their use in studying clinical outcomes. Finally, the [2022 JAND article](#) presents the protocol for validating the consensus characteristics.

### 14. What resources are available to support the importance and need for implementing malnutrition QI?

There are many resources on the [MQii website](#) and the [Commission on Dietetic Registration’s website](#) to support healthcare practitioners and their hospitals in implementing malnutrition QI. Of note, 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. Implementing QI and ensuring recommended clinical processes are followed will provide a foundation for hospitals to track and report performance on the GMCS.

### 15. What trends should hospitals monitor to best understand and target QI efforts?

Hospitals should monitor their GMCS overall result and their performance on the individual GMCS components to best understand where to target QI efforts. Additional variables such as social risk factors should also be monitored to identify potential care disparities for targeting QI toward the goal of advancing health equity.

### 16. Where can I find the GMCS technical specifications and how often is the GMCS updated?

Specifications can be found in the [specifications manual](#) on the GMCS website as well as in the [eCQI Resource Center](#). The documentation is typically updated annually to reflect any changes to the GMCS. Avalere and the Academy (i.e., the measure developer and steward, respectively), are making updates on an annual basis as requested by CMS in accordance with the process required of all measures included in their payment programs. For additional details on the annual update process for 2023, refer to the [eCQMs Annual Update Pre-Publication Document for the 2023 Reporting/Performance Period](#).

**17. I have read slightly different versions of the GMCS measure’s components and specifications in different documents. Do the GMCS measure specifications change over time?**

The GMCS measure specifications are updated annually by the measure developer and steward to align with current clinical practice guidelines, code systems, and eCQM standards, helping to ensure the GMCS measure remains current and actionable within the acute care setting. The latest specifications are typically available in May of each year.

In 2022, examples of changes made to the GMCS measure included:

- Removal of the 24-hour criterion for component #1: "Completion of a Malnutrition Screening ~~within 24 hours of Admission~~"
- Removal of the 24-hour criterion for component #2: "Completion of a Nutrition Assessment for Patients Identified as At Risk for Malnutrition ~~within 24 hours of a Malnutrition Screening~~"
- Addition of the RDN as a clinician who can complete the malnutrition risk screening for component #1

Sources of information about the GMCS measure specifications and the timelines for their updates are shown in **Table 3**.

**Table 3. GMCS Specification Resources**

Linked Resource	Purpose	Latest Update	Tentative Next Update
<a href="#">GMCS specification manual</a>	Provides a detailed background on the measure and each of the 4 components, including the value sets	June 2022	June 2023
<a href="#">eCQI Resource Center webpage</a>	Provides machine-readable specifications, including the technical details of the GMCS measure and its components for implementation, including the value sets	May 2022	May 2023

For more information about the earliest version of the GMCS, refer to "[Development and Evaluation of a Global Malnutrition Composite Score](#)" in the *Journal of the Academy of Nutrition and Dietetics (JAND)*. However, note that the measure’s components have changed since that article’s publication.

## Resources

### 18. Where can I find more information or ask questions about the GMCS?

For more information and resources regarding the GMCS, visit the following pages:

- The MQii website at <https://malnutritionquality.org>
- The GMCS page at <https://www.cdrnet.org/GMCS>
- The ASPEN Malnutrition Solution Center at <https://www.nutritioncare.org/malnutrition/>
- The CMS eCQI Resource Center at <https://ecqi.healthit.gov/ecqm/eh/pre-rulemaking/2023/cms986v1>

Please submit questions or comments regarding the standards and/or code system versions used in the upcoming eCQM updates for 2023 reporting/performance period to the [eCQM Issue Tracker](#).

For questions regarding your hospital's implementation of the GMCS in your EHR system, contact your hospital's administrator or EHR vendor, as appropriate.

For questions regarding the GMCS clinical care pathway and practice, email [quality@eatright.org](mailto:quality@eatright.org). For questions regarding the GMCS measure components and specifications, email [malnutritionquality@avalere.com](mailto:malnutritionquality@avalere.com).

### Recent Webinar Recordings

- [Academy's August Quarterly Spotlight on Malnutrition](#)
- [Academy's November Quarterly Spotlight on Malnutrition](#)
- [ASPEN Malnutrition webinar recording](#)
- [ASPEN Malnutrition webinar handout](#)
- [ASPEN Malnutrition webinar slides](#)

### Tools and Guides

- [ASPEN's GMCS practice tool](#)