

Global Malnutrition Composite Score Specification Manual July 2023

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Background

Burden of Malnutrition in Hospitalized Adults

Malnutrition is a leading cause of United States (U.S.) morbidity and mortality, especially among older adults.¹ As many as 39% of older adult patients aged 65 years and older admitted to the hospital may be malnourished or at risk of malnutrition. Evidence suggests that 20% to 50% of all patients are malnourished or at risk of malnutrition at the time of hospital admission,² with up to 31% of these malnourished patients and 38% of well-nourished patients experiencing nutritional decline during their hospital stays.³ Malnutrition refers to an imbalance of nutrients (either deficiency or excess) and may contribute to chronic illness, acute disease, and/or infection. An individual's weight status is independent of malnutrition status. Insufficiency of available nutrients needed to promote healing and rehabilitation may lead to an increased risk of medical complications, including depression of the immune system, impaired wound healing, muscle wasting, and increased mortality. Malnutrition and weight loss can also contribute to sarcopenia, or a loss of skeletal muscle mass and function, which also impedes an individual's recovery, mobility, ability to perform daily activities, and independence.

Hospitalized patients are vulnerable to nutritional decline for many reasons, including dietary restrictions in preparation for medical testing and treatments, as well as poor appetites, nutritional intolerance, and gastrointestinal problems resulting from existing medical conditions, hospitalization-related stress and anxiety, side effects from medications, and other medical, behavioral, and cultural reasons. One study noted that one-fifth of hospitalized patients aged 65 years and older had an average nutrient intake of less than 50% of their calculated maintenance energy requirements. Insufficient intake will cause further decline in the nutrition status of patients who are malnourished at the time of hospital admission. Hospitalized malnourished patients also have a greater risk of complications, such as development of hospital-acquired infections, functional decline, and in-hospital death. Evidence demonstrates that malnourished hospitalized elderly patients have increased 30-day readmissions, longer lengths of hospital stay, and higher care delivery utilization and costs (which are up to 300% more than hospitalized patients who are not malnourished).⁴ A patient's nutrition status is also considered a key factor in "post-hospital syndrome," a period of increased susceptibility to poor outcomes immediately following hospitalization.⁵

Gaps in Nutrition Care Quality

Significant evidence demonstrates the substantial clinical, healing, and recovery benefits for patients who receive nutrition support that is based on the established optimal nutrition care clinical consensus model.⁶ Contrary to this evidence, significant gaps persist in optimal nutrition care for hospitalized older adults who are malnourished or at risk for malnourishment. These gaps include malnutrition risk screening, malnutrition assessment and diagnosis, and care plan development, including clinically based nutrition goal setting, interventions, monitoring, and overall nutrition care.⁷ Currently, no standard benchmarks exist for U.S. acute care hospitals to identify, diagnose, and treat malnourishment. Establishing optimal nutrition care clinical benchmarks necessitates the use of standardized, reliable, and validated malnutrition screening and nutrition assessment tools to track and monitor the identification and diagnosis of malnutrition, as well as develop nutrition care plans and implement malnutrition interventions.⁸

The first step in optimal nutrition care is performing a malnutrition risk screening with a validated tool to ensure that malnutrition risk identification is both accurate and reliable.⁹ A national survey of U.S. hospital-based professionals found only 36.7% of malnutrition risk screenings were completed at admission (and of those, only 50.8% reported doing so within 24 hours) and 69% of respondents reported documenting the findings in the medical record.⁸ The malnutrition risk screening is most often conducted by a nurse, but it may also be performed by a registered dietitian nutritionist (RDN). The second step in optimal nutrition care is performing a nutrition assessment, which may be triggered for patients who are either identified at risk for malnutrition or have an order for a hospital dietitian referral. Nutrition assessment—a systematic approach for collecting, classifying, and synthesizing essential data to describe nutritional status—is the basis for the third step, which involves documenting a malnutrition diagnosis by the physician or other applicable eligible clinician. The nutrition assessment also provides a basis for the fourth step, development of the nutrition care plan addressing the assessment findings through malnutrition interventions and treatments that are known to improve nutrition status and

outcomes.¹⁰ In the absence of malnutrition screening, a hospital dietitian referral can prompt the RD or RDN to complete a nutrition assessment, identify the nutrition status, and develop a patient-specific nutrition care plan of malnutrition treatments and interventions.

Appropriate and timely identification of patients eligible for a nutrition assessment, along with subsequent physician or eligible clinician notification of nutrition problems and recommended interventions, are critical in diagnosing malnutrition and providing the necessary follow-up care. A review of 395 patients identified as at risk for malnutrition was studied to determine if appropriate nutrition care was received during hospitalization. When the RDN was consulted, the majority (80.6%) of malnourished patients received additional feeding and/or vitamin supplements. However, only 13.2% and 27.9% of patients received additional feeding and vitamin supplements, respectively, when ordered by medical doctors.¹¹ Based on varying populations and identification criteria, U.S. adult hospitalization malnutrition estimates range from 20–50%.¹² Simultaneously, a 2018 review of nationally representative cost and utilization data indicated that only 8.9% of patients received a diagnosis of malnutrition.¹ These findings suggest that hospital-based malnutrition is significantly under-identified and under-diagnosed, and that other nutrition care practice gaps exist. By reducing such existing gaps, optimal nutrition care will lessen the adverse malnutrition-associated clinical and cost outcomes described above.

The Nutrition Care Workflow and Malnutrition Interventions Improve Health Outcomes and Lower Costs

The Global Malnutrition Composite Score (GMCS) electronic clinical quality measure (eCQM) uses the evidence- and consensus-based nutrition care workflow that incorporates both clinical risk factors and patient preferences to evaluate hospital performance into four steps that occur exclusively in the hospital setting.⁶ These include the malnutrition risk screening performed by a nursing professional, RD, or RDN; nutrition assessment performed by an RD or RDN; malnutrition diagnosis documented by a physician or other qualified healthcare professional; and documentation of a nutrition care plan of malnutrition interventions that is developed by an RD or RDN.

Malnutrition Interventions Help to Improve Health Outcomes and Lower Costs

Addressing malnutrition improves health outcomes and quality of life and decreases complications, hospital readmissions and length of stay, as well as care delivery costs. These clinical consensus recommendations underscore the benefits of early malnutrition identification and systematic nutrition care interventions; coupled with interdisciplinary collaboration, these are critical to remediating malnutrition across the care continuum.¹³ Nutrition care best practices also include the engagement of patients and their families in development and implementation of nutrition care plans during hospitalization and upon discharge to enhance recovery and improved outcomes. Studies have demonstrated that implementation of comprehensive nutrition care pathways from inpatient admission through discharge improved identification of patients at high risk of malnutrition, and decreased time to nutrition consult, length of hospital stay, and 30-day readmission rate.^{14,15} Evidence also demonstrates the use of malnutrition quality measures assists health systems to identify malnutrition quality of care performance gaps¹⁶ and improve outcomes when implemented in conjunction with comprehensive quality improvement efforts.¹⁷

The Academy of Nutrition and Dietetics, the Commission on Dietetic Registration, and Avalere Health

The Academy of Nutrition and Dietetics (Academy), the steward of GMCS, is committed to advancing the profession through a variety of quality strategy initiatives for credentialed nutrition and dietetics practitioners across practice areas. They include member engagement, development, and utilization of quality improvement tools, resources, and education materials. The Commission on Dietetic Registration (CDR), the credentialing agency for the Academy, protects the public by establishing and enforcing standards effective for the profession. Avalere Health (Avalere), a healthcare consulting firm dedicated to improving healthcare, partners with leading life science companies, health plans, providers, and investors to bring innovative, data-driven solutions to today's most complex healthcare challenges. Together, these organizations have developed and stewarded de novo nutrition-focused eCQMs—including the Global Malnutrition Composite Score (GMCS)—that can be used to improve patient outcomes, reduce cost burden, and advance the role of RD and RDNs.

Malnutrition Quality Improvement Initiative (MQii)

The GMCS eCQM is one aspect of a broader multi-stakeholder initiative known as the Malnutrition Quality Improvement Initiative (MQii), a collaborative project led by the Academy, Avalere, and other stakeholders to provide guidance and expertise, with a mission to advance evidence-based, high-quality, and patient-driven care for hospitalized older adults (aged 65 and older) who are malnourished or at risk for malnutrition. The initiative's objectives include:

- Support healthcare institutions in achieving malnutrition standards of care through use of an interdisciplinary, evidence-based malnutrition quality improvement toolkit and malnutrition quality measures;
- Advance adoption of nutrition care best practices at healthcare institutions through the nationwide MQii Learning Collaborative with the goal of improving outcomes that are important to patients and clinicians; and
- Improve malnutrition risk identification and care as patients transition across care settings, such as through integration into existing care transition pathways and accountable care models.

The MQii includes two parallel tracks to advance nutrition care for older adult hospitalized populations:

- Pilot demonstrations and a learning collaborative for hospitals focused on reducing clinical practice variability in nutrition care through the implementation of a standardized malnutrition quality improvement toolkit; and
- eCQM development and implementation to advance the measurement and quality of hospital-based nutrition care.

Overview of Global Malnutrition Composite Score

The GMCS eCQM assesses the percentage of inpatient hospitalizations during the measurement period for adults aged 65 years and older at the start of an inpatient encounter with a length of stay of 24 hours or greater who received optimal inpatient malnutrition care during the current inpatient hospitalization where care performed was appropriate to the patient's level of malnutrition risk and severity. Malnutrition care best practices recommend that for each hospitalization, adult inpatients are screened for malnutrition risk, assessed to confirm findings, and if identified with a "moderate" or "severe" malnutrition status in the nutrition assessment, receive a current "moderate" or "severe" malnutrition diagnosis, and have a current nutrition care plan performed.

The GMCS is a multi-score continuous variable intermediate outcome eCQM constructed of four clinically eligible component measures aggregated as an arithmetic average of eligible hospitalizations during a measurement period. A continuous variable "is a score in which the individual value for the measure can occur along a continuous scale and aggregated using a variety of methods such as the calculation of a mean or median (e.g., mean number of minutes between the time when a patient presents with chest pain and the time of thrombolytic medications administration)."¹⁸ For GMCS, the continuous scale is a percentage range of 0% through 100%. As a continuous variable measure, the populations of interest are called measure populations (rather than denominators), and the desired clinical actions are called measure observations (rather than numerators). The measure population for each of the four component measures is the same: "inpatient hospitalizations during the measurement period for adults aged 65 years and older at the start of an inpatient encounter with a length of stay equal of to or greater than 24 hours or greater."

There are six measure observation scores calculated in GMCS. The first four calculations correspond to the four component measures, the fifth calculation is the "TotalMalnutritionComponentsScore" (i.e., sum of the four performed components), and the sixth calculation is the "TotalMalnutritionCompositeScore as Percentage" (i.e., GMCS). There are no exclusions or exceptions in the GMCS eCQM. Table 1 provides descriptions for the four component measures.

Table 1. Description of GMCS Component Measures

Component Title	Short Description	Measure Observation Details	Staff Involved
Component Measure 1: Malnutrition Risk Screening	Encounters with Malnutrition Risk Screening and Identified Result	Identifies hospital encounters where a "Malnutrition Risk Screening" was performed with a current identified "Malnutrition Screening Not At Risk Result" or current identified "Malnutrition Screening At Risk Result"	A nursing professional, registered dietitian (RD), or registered dietitian nutritionist (RDN)
Component Measure 2: Nutrition Assessment	Encounters with Nutrition Assessment and Identified Status	Identifies hospital encounters where a "Nutrition Assessment" was performed with a current identified "Nutrition Assessment Status Not or Mildly Malnourished", "Nutrition Assessment Status Moderately Malnourished" OR "Nutrition Assessment Status Severely Malnourished"	An RD or RDN
Component Measure 3: Malnutrition Diagnosis	Encounters with Malnutrition Diagnosis	Identifies hospital encounters where a current "Malnutrition Diagnosis" was documented AND "Nutrition Assessment Status Moderately Malnourished" or "Nutrition Assessment Status Severely Malnourished"	A physician or other qualified healthcare professional
Component Measure 4: Nutrition Care Plan	Encounters with Nutrition Care Plan	Identifies hospital encounters where a current "Nutrition Care Plan" was performed AND "Nutrition Assessment Status Moderately Malnourished" or "Nutrition Assessment Status Severely Malnourished"	An RD or RDN

Source: <https://ecqi.healthit.gov/sites/default/files/ecqm/measures/CMS986v2.html>

Additional Measure Specification Resources

The GMCS eCQM is fully specified for use in electronic health records (EHRs). The machine-readable specifications are available on the [Electronic Clinical Quality Improvement \(eCQI\) Resource Center](#). Please refer to the [GMCS CMS986v2](#) for eCQM implementation resources, including:

- *GMCS eCQM Package*: [CMS986v2.zip](#) contains the standards-based eCQM documents, including the [Health Quality Measure Format \(HQMF\)](#).
- *GMCS eCQM Specifications*: [CMS986v2.html](#) is an HTML document generated from the XML-based specifications that allows the XML to be viewed in a web browser
- *National Library of Medicine (NLM) Value Set Authority Center (VSAC) Value Set Codes Inventory: Value Sets to be used with CMS986v2* contains all GMCS value sets included in the GMCS, with additional information containing the value set developer, identifiers (OIDs), descriptive names, revision dates, code systems and versions, and all concepts and codes for each value set
- The GMCS and component measures specification details are linked to the following pages:

[Global Malnutrition Composite Score](#) (page 8)

[Component Measure 1: Malnutrition Risk Screening](#) (page 10)

[Component Measure 2: Nutrition Assessment](#) (page 12)

[Component Measure 3: Malnutrition Diagnosis](#) (page 14)

[Component Measure 4: Nutrition Care Plan](#) (page 16)

Global Malnutrition Composite Score (GMCS) Specification Details

Title: Global Malnutrition Composite Score

Description: This measure assesses the percentage of hospitalizations for adults aged 65 years and older at the start of the inpatient encounter during the measurement period with a length of stay equal to or greater than 24 hours who received optimal malnutrition care during the current inpatient hospitalization where care performed was appropriate to the patient's level of malnutrition risk and severity. Malnutrition care best practices recommend that for each hospitalization, adult inpatients are screened for malnutrition risk, assessed to confirm findings of malnutrition risk or for a hospital dietitian referral order, and if identified with a "moderate" or "severe" malnutrition status in the current performed malnutrition assessment, receive a current "moderate" or "severe" malnutrition diagnosis and have a current nutrition care plan performed.

Rationale: The components of this measure are supported by clinical guidance that recommends the following: (1) malnutrition screening for patients admitted into the acute inpatient care setting; (2) nutrition assessment for patients identified at-risk of malnutrition or with a hospital dietitian referral order to form the basis for appropriate nutrition interventions; (3) appropriate recognition, diagnosis, and documentation of the nutrition status of a patient in order to (4) address their condition with an appropriate plan of care and communicate patient needs to other care providers.

The process for risk identification, assessment, diagnosis, and treatment of malnutrition necessitates a multi-disciplinary care team that begins with the identification of an initial risk population for a more thorough physical assessment by registered dietitian (RD) or registered dietitian nutritionists (RDN). The RDN in turn provides the necessary treatment recommendations to address nutritional status and the clinical indicators that inform a medical diagnosis of malnutrition completed by a physician. The four component measures individually will only provide a fraction of the necessary information on quality of care for patients at-risk of malnutrition. For example, knowing which patients have been assessed out of those who were initially identified as at-risk, but not knowing if the appropriate proportion of patients were screened upon admission, would be an insufficient assessment of quality of care.

Implementation of this measure supports timely nursing malnutrition risk screening and hand off to the RD or RDN for appropriate nutritional assessment for patients at-risk of malnutrition during the current hospitalization. For patients identified with a moderate or severe malnutrition status from the nutrition assessment, best practice also recommends a medical diagnosis by a physician or other qualified healthcare professionals and the execution of the nutrition care plan by an RD or RDN. Evidence demonstrates that implementing a standardized protocol for screening, assessment, diagnosis, and care planning results in better identification of malnourished patients and subsequent improvements in rates of nutrition intervention for the malnourished. Outcomes modeling, and those reported in other studies, also demonstrate the benefits to patient outcomes, including reduced risk of 30-day readmissions, length of hospital stay, and complications, as well as improved quality of life after hospitalization.

Measure Population: Inpatient hospitalizations during the measurement period with length of stay of 24 hours or more among individuals 65 years of age and older at the start of the inpatient encounter

Exclusions and Exceptions: None

Measure Observations: There are six measure observations for this measure:

1. Encounters with Malnutrition Risk Screening and Identified Result
2. Encounters with Nutrition Assessment and Identified Status
3. Encounters with Malnutrition Diagnosis
4. Encounters with Nutrition Care Plan
5. TotalMalnutritionComponentsScore
6. TotalMalnutritionCompositeScore as Percentage (i.e., GMCS)

Measure Observation 1, 2, 3, and 4 clinical activities may be performed during Emergency Department or Observation Stays immediately prior to the applicable inpatient hospitalization.

Risk Adjustment or Stratification: None

GMCS Terminologies/Value Sets:

- valueset "Encounter Inpatient": 'urn:oid:2.16.840.1.113883.3.666.5.307'
- valueset "Ethnicity": 'urn:oid:2.16.840.1.114222.4.11.837'
- valueset "Hospital Dietitian Referral": 'urn:oid:2.16.840.1.113762.1.4.1095.91'
- valueset "Malnutrition Diagnosis": 'urn:oid:2.16.840.1.113762.1.4.1095.55'
- valueset "Malnutrition Risk Screening": 'urn:oid:2.16.840.1.113762.1.4.1095.92'
- valueset "Malnutrition Screening At Risk Result": 'urn:oid:2.16.840.1.113762.1.4.1095.38'
- valueset "Malnutrition Screening Not At Risk Result": 'urn:oid:2.16.840.1.113762.1.4.1095.34'
- valueset "Nutrition Assessment": 'urn:oid:2.16.840.1.113762.1.4.1095.21'
- valueset "Nutrition Assessment Status Moderately Malnourished":
'urn:oid:2.16.840.1.113762.1.4.1095.44'
- valueset "Nutrition Assessment Status Not or Mildly Malnourished":
'urn:oid:2.16.840.1.113762.1.4.1095.48'
- valueset "Nutrition Assessment Status Severely Malnourished":
'urn:oid:2.16.840.1.113762.1.4.1095.42'
- valueset "Nutrition Care Plan": 'urn:oid:2.16.840.1.113762.1.4.1095.93'
- valueset "ONC Administrative Sex": 'urn:oid:2.16.840.1.113762.1.4.1'
- valueset "Payer": 'urn:oid:2.16.840.1.114222.4.11.3591'
- valueset "Race": 'urn:oid:2.16.840.1.114222.4.11.836'

Data Collection Approach: The GMCS and four component measures are specified for use with electronic health records (EHR) measure reporting. The XML-based specifications that are mapped in hospital EHRs to collect necessary data elements for the measure calculations. The eCQM specification data elements and value sets are specified with nationally standardized coding terminologies.

Data Accuracy: Variation may exist at the level of appropriate data documentation for the required data elements. The data elements represent performance of discrete care processes, and the accuracy of the data is dependent the hospital EHR structure and completeness, data element mapping, and hospital staff documentation.

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Component Measure 1: Malnutrition Risk Screening

Title: Malnutrition Risk Screening

Description: Inpatient hospitalizations for adults aged 65 years and older at the start of the inpatient encounter during the measurement period with a length of stay equal to or greater than 24 hours with a current "Malnutrition Risk Screening" performed by a nursing professional, registered dietitian (RD), or registered dietitian nutritionist (RDN), and a current malnutrition risk screen result identified.

Rationale: Malnutrition in hospitalized patients is associated with adverse patient safety outcomes, such as increased risk of complications and readmissions and longer length of stays. Malnutrition is associated with many adverse outcomes, including depression of the immune system, impaired wound healing, muscle wasting, and increased mortality. Hospitalized patients with malnutrition have significantly higher healthcare resources utilization and care delivery costs. Early identification of patients with malnutrition or malnutrition risk via screening is the first step in providing optimal, evidence-based nutrition care, and expediting effective nutrition interventions. All hospitalized patients should be screened for risk of malnutrition. If malnutrition risk is identified or a hospital dietitian referral is ordered, a registered dietitian (RD) or registered dietitian nutritionist (RDN) should conduct an in-depth nutrition assessment and develop a patient-specific care plan to improve the patient's nutrition status. Malnutrition screening and hospital dietitian referral rates are suboptimal, which leads to lower malnutrition identification, nutrition assessment, and targeted nutrition interventions. These performance gaps contribute to an increased likelihood of developing complications.^{3,18–23} Evidence suggests that between 30–50% of hospitalized patients are malnourished,²⁴ while a 2018 review of nationally representative cost and utilization data indicated documented malnutrition diagnoses in only 8.9% of hospitalized patients^{1,24}. Another national survey of U.S. hospital-based healthcare professionals studied the relationship between nutrition screening and assessment practices and associated gaps in knowledge of nutrition care.⁸ Of the 1,777 unique respondents, only 36.7% reported completing a nutrition screening at admission, with 50.8% of those reported completion within 24 hours, and 69% reported documenting the screening results in the patient's medical record.

Measure Population: Inpatient hospitalizations during the measurement period with length of stay of 24 hours or more among individuals 65 years of age and older at the start of the inpatient encounter

Exclusions and Exceptions: None

Measure Observation 1: Inpatient hospitalizations for adults aged 65 years and older at the start of the inpatient encounter during the measurement period during the measurement period where a "Malnutrition Risk Screening" was performed with a current identified "Malnutrition Screening Not At Risk Result" or current "Malnutrition Screening At Risk Result"

For the purpose of this measure, it is recommended—though not required—that a malnutrition risk screening be performed using a validated screening tool, such as one of the following:

- Malnutrition Screening Tool (MST)²⁵
- Nutritional Risk Screening 2002 (NRS 2002)²⁶
- Short Nutrition Assessment Questionnaire (SNAQ)²³
- Malnutrition Universal Screening Tool (MUST)²⁷
- Mini Nutrition Assessment-Short Form (MNA-SF)^{28,29}

Risk Adjustment or Stratification: None

Measure Observation 1 Calculation Logic:

```
if ( "Encounter with Malnutrition Risk Screening and Identified Result" contains Encounter
    and ( "Encounter with Malnutrition Screening Not At Risk Result" contains Encounter
        or "Encounter with Malnutrition Screening At Risk Result" contains Encounter
    )
) then 1
else 0
```

Component 1 Terminologies/Value Sets:

- valueset “Emergency Department Visit” (2.16.840.1.113883.3.117.1.7.1.292)
- valueset “Encounter Inpatient” (2.16.840.1.113883.3.666.5.307)
- valueset “Malnutrition Risk Screening” (2.16.840.1.113762.1.4.1095.92)
- valueset “Malnutrition Screening At Risk Result” (2.16.840.1.113762.1.4.1095.38)
- valueset “Malnutrition Screening Not At Risk Result” (2.16.840.1.113762.1.4.1095.34)
- valueset “Observation Services” (2.16.840.1.113762.1.4.1111.143)

Data Collection Approach: The GMCS and four component measures are specified for use with electronic health records (EHR) measure reporting. The XML-based specifications that are mapped in hospital EHRs to collect necessary data elements for the measure calculations. The eCQM specification data elements and value sets are specified with nationally standardized coding terminologies.

Data Accuracy: Variation may exist at the level of appropriate data documentation for the required data elements. The data elements represent performance of discrete care processes, and the accuracy of the data is dependent the hospital EHR structure and completeness, data element mapping, and hospital staff documentation.

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Component Measure 2: Nutrition Assessment

Title: Nutrition Assessment

Description: Inpatient hospitalizations for adults aged 65 years and older at the start of the inpatient encounter during the measurement period with a current “Nutrition Assessment” performed by registered dietitian (RD) or registered dietitian nutritionist (RDN) from a current “Malnutrition Screening At Risk Result” during the current hospitalization or a “Hospital Dietitian Referral” order from a physician or other qualified healthcare professional during the current hospitalization with a current identified nutrition status.

Rationale: Hospitalized patients with malnutrition consistently are at greater risk of significant adverse patient safety outcomes, such as increased risk of complications, length of stay, and hospital readmissions. Malnutrition is associated with a multitude of unfavorable outcomes, including depression of the immune system, impaired wound healing, muscle wasting, and increased mortality. Referral rates for nutrition assessment and treatment of malnourished patients by RDNs have proven to be suboptimal, leading to increased likelihood of developing such complications.^{3,20,22,23} Although a review of nationally representative data on cost and utilization indicated that 8.9% of patients had a diagnosis of malnutrition in 2018,^{1,24} this may be a severely underreported figure since other literature suggests that malnutrition is present in 30–50% of hospitalized patients.²⁴ A national survey of U.S. hospital-based professionals examined nutrition screening and assessment practices and identified nutrition care performance gaps, with only 23.1% of 1,777 unique respondents reported using a validated assessment tool to help identify clinical characteristics for a malnutrition diagnosis.⁸ A 2022 survey of nutrition clinicians indicated that 97% completed a nutrition assessment and 89% used the Academy of Nutrition and Dietetics/American Society for Parenteral and Enteral Nutrition Indicators of Malnutrition.³⁰ Nutrition assessments conducted for at-risk patients identified by malnutrition screening using a validated screening tool was associated with key patient outcomes including less weight loss, reduced length of stay, improved muscle function, better nutritional intake, and fewer readmissions.¹²

The use of validated nutrition assessment tools is recommended for accurate evaluation of nutrition status to help RDNs determine the appropriate nutrition interventions and care plans that properly address impaired nutrition status. The identification of malnutrition is independently associated with adverse patient outcomes. In a study of 409 older adult patients, researchers demonstrated that declining nutritional status assessed by the validated Subjective Global Assessment (SGA), was significantly associated with prolonged length of stay.³¹ Additionally, a study of 733 patients from more than a dozen hospitals identified that the completion of a validated assessment for patients who were hospitalized was able to detect predictors of outcomes for malnutrition, such as hospital length of stay, and readmission within 30 days after discharge.³²

Measure Population: Inpatient hospitalizations during the measurement period with length of stay of 24 hours or more among individuals 65 years of age and older at the start of the inpatient encounter

Exclusions and Exceptions: None

Measure Observation 2: Inpatient hospitalizations for adults aged 65 years and older at the start of the inpatient encounter during the measurement period during the measurement period where a “Nutrition Assessment” was performed from a “Malnutrition Screening At Risk Result” during the current hospitalization or a “Hospital Dietitian Referral” order from a physician or eligible clinician during the current hospitalization with a current identified “Nutrition Assessment Status Not or Mildly Malnourished”, “Nutrition Assessment Status Moderately Malnourished”, or “Nutrition Assessment Status Severely Malnourished”

For the purpose of this measure, it is recommended—though not required—that a nutrition assessment be performed using a validated nutrition assessment tool, such as one of the following:

- Subjective Global Assessment³³
- Patient Generated Subjective Global Assessment³⁴
- Mini Nutritional Assessment Long Form²⁹
- Academy/ASPEN indicators for adult and pediatric malnutrition (AAIM)³⁵

Risk Adjustment or Stratification: None

Measure Observation 2 Calculation Logic:

```
if ( "Encounter with Nutrition Assessment and Identified Status" contains Encounter
    and ( "Encounter with Nutrition Assessment Status Not or Mildly Malnourished" contains
    Encounter
        or "Encounter with Nutrition Assessment Status Moderately Malnourished" contains Encounter
        or "Encounter with Nutrition Assessment Status Severely Malnourished" contains Encounter
    )
) then 1
else 0
```

Component 2 Terminologies/Value Sets:

- valueset "Emergency Department Visit" (2.16.840.1.113883.3.117.1.7.1.292)
- valueset "Encounter Inpatient" (2.16.840.1.113883.3.666.5.307)
- valueset "Hospital Dietitian Referral": 'urn:oid:2.16.840.1.113762.1.4.1095.91'
- valueset "Malnutrition Screening At Risk Result": 'urn:oid:2.16.840.1.113762.1.4.1095.38'
- valueset "Nutrition Assessment": 'urn:oid:2.16.840.1.113762.1.4.1095.21'
- valueset "Nutrition Assessment Status Moderately Malnourished":
'urn:oid:2.16.840.1.113762.1.4.1095.44'
- valueset "Nutrition Assessment Status Not or Mildly Malnourished":
'urn:oid:2.16.840.1.113762.1.4.1095.48'
- valueset "Nutrition Assessment Status Severely Malnourished":
'urn:oid:2.16.840.1.113762.1.4.1095.42'
- valueset "Observation Services" (2.16.840.1.113762.1.4.1111.143)

Data Collection Approach: This measure is specified for use with electronic health records. It has XML-based specifications that are mapped onto the hospital's EHR data warehouse to extract the necessary data elements for the measure specifications. Data elements should be labeled with nationally standardized coding terminology included in the value sets that are built into the measure specifications.

Data Accuracy: Variation may exist at the level of documentation of appropriate data for the required data elements. Since the data elements represent the completion of discrete care processes, the accuracy of the data is dependent on the initial documentation by hospital staff.

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Component Measure 3: Malnutrition Diagnosis

Title: Malnutrition Diagnosis

Description: Inpatient hospitalizations for adults aged 65 years and older at the start of the inpatient encounter during the measurement period with a current documented "Malnutrition Diagnosis" by physician or other qualified healthcare professional as a result of a current "Nutrition Assessment Status Moderately Malnourished" OR current "Nutrition Assessment Status Severely Malnourished"

Rationale: U.S. hospital discharge data from the Healthcare Cost and Utilization Project (HCUP) indicated that only 8.9% of hospital discharges included malnutrition as a diagnosis in 2018.^{1,24} Other studies of validated malnutrition screening tools indicate a substantially higher prevalence of undiagnosed hospital malnutrition, ranging from 33%³⁶ to 78% of applicable patients.^{15,37} Hospitalized patients with malnutrition are associated with significant negative outcomes, including increased risk of complications, length of stay, and hospital readmissions. Malnutrition is also associated with many adverse outcomes, including depression of the immune system, impaired wound healing, muscle wasting, and increased mortality. Referral rates for nutrition assessment and treatment of malnourished patients by dietitians have proven to be suboptimal, thereby increasing the likelihood of developing such complications.^{3,20,22,23}

Nutritional status and progress are often inadequately documented in the medical record. It can be difficult to tell when (or if) patients are consuming adequate and appropriate food and supplements. Further, hospital EHRs often lack documentation triggers for nutritional procedures and documentation.²⁰ Current evidence supports the early and rapid identification of malnutrition status to allow for timely hospital diagnosis and treatment. Malnutrition diagnosis is one aspect of optimal nutrition care best practice that reflects appropriate recognition of the nutrition status, diagnosis, and documentation of that status and diagnosis to address a patient's condition with an appropriate plan of care and communicate patient needs to other care providers. Early hospital-based malnutrition identification and documentation allows care teams to address a patient's condition with an appropriate plan of care and communicate patient needs to other care providers. Identifying and addressing malnutrition early in the episode of care is associated with reduced lengths of stay, 30-day readmission rates, hospital-acquired conditions, and overall healthcare costs.³⁷⁻³⁹ A randomized controlled trial of 652 hospitalized, malnourished older adults aged 65 years and older evaluated the use of a high-protein oral nutritional supplements for its impact on patient outcomes reporting significant reductions in 90-day mortality.⁴⁰ Nutrition support for patients identified with risk for malnutrition or malnutrition improves clinical outcomes.¹²

Measure Population: Inpatient hospitalizations during the measurement period with length of stay of 24 hours or more among individuals 65 years of age and older at the start of the inpatient encounter

Exclusions and Exceptions: None

Risk Adjustment or Stratification: None

Measure Observation 3: Inpatient hospitalizations for adults aged 65 years and older at the start of the inpatient encounter during the measurement period during the measurement period where a current documented "Malnutrition Diagnosis" as a result of a current "Nutrition Assessment Status Moderately Malnourished" OR current "Nutrition Assessment Status Severely Malnourished" was documented by a physician or other qualified healthcare professional.

Measure Observation 3 Calculation:

```
if ( "Encounter with Malnutrition Diagnosis" contains Encounter
    and "Encounter with Nutrition Assessment and Identified Status" contains Encounter
    and ( "Encounter with Nutrition Assessment Status Moderately Malnourished" contains Encounter
        or "Encounter with Nutrition Assessment Status Severely Malnourished" contains Encounter
    )
) then 1
else 0
```

Component 3 Terminologies/Value Sets:

- valueset "Emergency Department Visit" (2.16.840.1.113883.3.117.1.7.1.292)
- valueset "Encounter Inpatient" (2.16.840.1.113883.3.666.5.307)
- valueset "Malnutrition Diagnosis": 'urn:oid:2.16.840.1.113762.1.4.1095.55'
- valueset "Nutrition Assessment": 'urn:oid:2.16.840.1.113762.1.4.1095.21'
- valueset "Nutrition Assessment Status Moderately Malnourished": 'urn:oid:2.16.840.1.113762.1.4.1095.44'
- valueset "Nutrition Assessment Status Severely Malnourished": 'urn:oid:2.16.840.1.113762.1.4.1095.42'
- valueset "Observation Services" (2.16.840.1.113762.1.4.1111.143)

Data Collection Approach: This measure is specified for use with electronic health records. It has XML-based specifications that are mapped onto the hospital's EHR data warehouse to extract the necessary data elements for the measure specifications. Data elements should be labeled with nationally standardized coding terminology included in the value sets that are built into the measure specifications.

Data Accuracy: Variation may exist at the level of documentation of appropriate data for the required data elements. Since the data elements represent the completion of discrete care processes, the accuracy of the data is dependent on the initial documentation by hospital staff.

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Component Measure 4: Nutrition Care Plan

Title: Nutrition Care Plan

Description: Inpatient hospitalizations for adults aged 65 years and older at the start of the inpatient encounter during the measurement period with a current "Nutrition Care Plan" performed by registered dietitian (RD) or registered dietitian nutritionist (RDN) as a result of a current "Nutrition Assessment Status Moderately Malnourished" OR current "Nutrition Assessment Status Severely Malnourished"

Rationale: Hospitalized patients with malnutrition are associated with an increased risk for adverse patient outcomes, including increased risk of complications, prolonged length of stay, and hospital readmissions, as well as depressed immune systems, impaired wound healing, muscle wasting, and increased mortality. Referral rates for nutrition assessment and treatment of patients with malnutrition by RDNs are known to be suboptimal, which increases the likelihood of developing such complications.^{3,20,22,23}

Nutritional status and progress are often inadequately documented in the medical record, as well as adequate and appropriate food and supplement intake. Hospital EHRs often lack documentation triggers for nutritional procedures and documentation. Similarly, nutrition care plans and patient issues are poorly communicated to post-acute facilities and primary care providers.²⁰ Current evidence supports the early and rapid identification of malnutrition to allow for timely treatment in the hospital. Optimal nutrition care best practice is appropriate recognition, diagnosis, and documentation of the nutrition status of a patient to address their condition with an appropriate plan of care and communicate patient needs to other care providers. Identifying and addressing malnutrition early in the episode of care is associated with reduced lengths of stay, 30-day readmission rates, hospital-acquired conditions, and overall healthcare costs.³⁷⁻³⁹ A randomized controlled trial of 652 hospitalized, malnourished older adults aged 65 years and older evaluated the use of a high-protein oral nutrition supplements for its impact on patient outcomes. The study reported a significant reduction of 90-day mortality.⁴⁰ Additionally, an intervention of nutrition support in patients identified by screening and assessment as at risk for malnutrition or malnourished may improve clinical outcomes.^{12 23,37,38,40,41}

Measure Population: Inpatient hospitalizations during the measurement period with length of stay of 24 hours or more among individuals 65 years of age and older at the start of the inpatient encounter

Risk Adjustment or Stratification: None

Exclusions and Exceptions: None

Measure Observation 4: Inpatient hospitalizations in the denominator where a current "Nutrition Care Plan" was performed as a result of a current "Nutrition Assessment Status Moderately Malnourished" OR current "Nutrition Assessment Status Severely Malnourished"

Measure Observation 4 Calculation:

```
if ( "Encounter with Nutrition Care Plan" contains Encounter
    and "Encounter with Nutrition Assessment and Identified Status" contains Encounter
    and ( "Encounter with Nutrition Assessment Status Moderately Malnourished" contains Encounter
        or "Encounter with Nutrition Assessment Status Severely Malnourished" contains Encounter
    )
) then 1
else 0
```

Component 4 Terminologies/Value Sets:

- valueset "Emergency Department Visit" (2.16.840.1.113883.3.117.1.7.1.292)
- valueset "Encounter Inpatient" (2.16.840.1.113883.3.666.5.307)
- valueset "Nutrition Assessment": 'urn:oid:2.16.840.1.113762.1.4.1095.21'
- valueset "Nutrition Assessment Status Moderately Malnourished": 'urn:oid:2.16.840.1.113762.1.4.1095.44'

- valueset "Nutrition Assessment Status Severely Malnourished": 'urn:oid:2.16.840.1.113762.1.4.1095.42'•
- valueset "Nutrition Care Plan": 'urn:oid:2.16.840.1.113762.1.4.1095.93'
- valueset "Observation Services" (2.16.840.1.113762.1.4.1111.143)

Data Collection Approach: This measure is specified for use with electronic health records. It has XML-based specifications that are mapped onto the hospital's EHR data warehouse to extract the necessary data elements for the measure specifications. Data elements should be labeled with nationally standardized coding terminology included in the value sets that are built into the measure specifications.

Data Accuracy: Variation may exist at the level of documentation of appropriate data for the required data elements. Since the data elements represent the completion of discrete care processes, the accuracy of the data is dependent on the initial documentation by hospital staff.

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GMCS Episode Calculation and Rate Aggregation

The eCQM [CMS986v2.zip](#) specifications are used by implementers to calculate episode and rate aggregation performance scores for the GMCS overall performance and four component measures.

GMCS Episode Calculations:

- To calculate Measure Observation 1 episode performance, calculate “1” for performed and “0” for not performed for the eligible hospitalization.
- To calculate Measure Observation 2 episode performance, calculate “1” for performed and “0” for not performed for the eligible hospitalization.
- To calculate Measure Observation 3 episode performance, calculate “1” for performed and “0” for not performed for the eligible hospitalization.
- To calculate Measure Observation 4 episode performance, calculate “1” for performed and “0” for not performed for the eligible hospitalization.
- To calculate “Measure Observation TotalMalnutritionComponentsScore” episode performance, sum “Measure Observation 1” + “Measure Observation 2” + “Measure Observation 3” + “Measure Observation 4”.
- To calculate “Measure Observation TotalMalnutritionCompositeScore by Percentage” episode performance, divide “Measure Observation TotalMalnutritionComponentsScore” by “TotalMalnutritionCompositeScore Eligible Denominators”, then multiply the result by 100 to calculate the percentage.
- To define “TotalMalnutritionCompositeScore Eligible Denominators”:
 - Use “1” if a Measure Observation 1 (i.e., “Malnutrition Risk Screening”) was performed and a “Malnutrition Screening Not At Risk Result” was identified AND a “Hospital Dietitian Referral” was not ordered
 - Use “2” if a “Malnutrition Screening At Risk Result” or “Hospital Dietitian Referral” was ordered AND “Nutrition Assessment and Identified Status” was performed AND a “Nutrition Assessment Status Not or Mildly Malnourished” was identified
 - Use “4” in all other instances

GMCS Rate Aggregation:

- To calculate Measure Observation 1 rate aggregation, sum the number of performed measure observation activities for the number of eligible hospitalizations in the reporting period.
- To calculate Measure Observation 2 rate aggregation, sum the number of performed measure observation activities for the number of eligible hospitalizations in the reporting period.
- To calculate Measure Observation 3 rate aggregation, sum the number of performed measure observation activities for the number of eligible hospitalizations in the reporting period.
- To calculate Measure Observation 4 rate aggregation, sum the number of performed measure observation activities for the number of eligible hospitalizations in the reporting period.
- To calculate “Measure Observation TotalMalnutritionComponentsScore” rate aggregation, sum the number of eligible hospitalizations in the reporting period.
- To calculate “Measure Observation TotalMalnutritionCompositeScore by Percentage” rate aggregation, average the “TotalMalnutritionCompositeScore as Percentage” episode performance across the number of eligible hospitalizations during the measurement period.

Value Set

The GMCS eCQM includes 20 value sets containing codes defined using standardized terminologies. A complete list is included in Table 2 and further available in the Value Set Authority Center ([VSAC](#)).

Table 2. Overview of GMCS eCQM Value Sets

Value Set Name	Intent	Terminology, Code, Description
Emergency Department Visit	Identify emergency department patient visits	SNOMEDCT, 4525004, Emergency department visit
Encounter Inpatient	Identify inpatient hospitalization events	SNOMEDCT, 183452005, Emergency hospital admission (procedure) SNOMEDCT, 32485007, Hospital admission (procedure) SNOMEDCT, 8715000, Hospital admission, elective (procedure)
Ethnicity	Identify patient ethnicity according to CDC Race & Ethnicity code system	CDCREC, 2135-2, Hispanic or Latino CDCREC, 2186-5, Not Hispanic or Latino
Hospital Dietitian Referral	Identify patients with a hospital-based dietitian referral	SNOMEDCT, 306165000, Referral to hospital-based dietetics service (procedure) SNOMEDCT, 306354000, Referral to hospital-based dietitian (procedure)
Malnutrition Diagnosis	Identify medical malnutrition diagnosis	SNOMEDCT, 190606006, Moderate protein energy malnutrition (disorder) SNOMEDCT, 238107002, Deficiency of macronutrients (disorder) SNOMEDCT, 238111008, Deficiency of micronutrients (disorder) SNOMEDCT, 272588001, Malnutrition (calorie) (disorder) SNOMEDCT, 302872003, Disorder of hyperalimentation (disorder) SNOMEDCT, 441951000124102, Starvation-related malnutrition (disorder) SNOMEDCT, 441961000124100, Acute disease or injury-related malnutrition (disorder) SNOMEDCT, 441971000124107, Chronic disease-related malnutrition (disorder) SNOMEDCT, 65404009, Undernutrition (disorder) SNOMEDCT, 70241007, Nutritional deficiency disorder (disorder) ICD10CM, E43, Unspecified severe protein-calorie malnutrition ICD10CM, E44.0, Moderate protein-calorie malnutrition ICD10CM, E45, Retarded development following protein-calorie malnutrition ICD10CM, E46, Unspecified protein-calorie malnutrition ICD-10CM, T73.0XXA, Starvation, initial encounter ICD-10CM, T73.0XXD, Starvation, subsequent encounter ICD-10CM, T73.0XXS, Starvation, sequela
Malnutrition Risk Screening	Identify malnutrition screenings performed	LOINC, 84291-4, Nutrition and dietetics Risk assessment and screening note LOINC, 98967-3, Nutritional Risk Screening 2002 panel LOINC, 98968-1, Initial screening NRS_2002

		LOINC, 98972-3, Final screening NRS_2002
Malnutrition Screening At Risk Result	Identify malnutrition screening findings of "at-risk"	SNOMEDCT, 129689002, At risk for nutritional problem (finding) SNOMED, 129845004, At risk for imbalanced nutrition, less than body requirements (finding) SNOMED, 445421000124101, At risk for inadequate intake of multiple nutrients (finding) SNOMEDCT, 704358009, At risk of nutritional deficit (finding) SNOMED, 704361005, At risk of deficient food intake (finding)
Malnutrition Screening Not At Risk Result	Identify malnutrition screening findings of "not at-risk"	SNOMEDCT, 36823005, Normal diet (finding)
Nutrition Assessment	Identify nutrition assessments performed	LOINC, 75282-4, Nutrition assessment panel LOINC, 75285-7, Comparative nutrition assessment standards panel LOINC, 75303-8, Nutrition assessment narrative LOINC, 75304-6, Nutrition status observation panel LOINC, 84291-4, Nutrition and dietetics Risk assessment and screening note
Nutritional Assessment Status Moderately Malnourished	Identify nutrition assessment findings of "moderately malnourished"	SNOMEDCT, 102636009, Chronic nutritional deficiency (finding) SNOMEDCT, 190606006, Moderate protein energy malnutrition disorder SNOMEDCT, 448765001, Unintentional weight loss (findings) SNOMEDCT, 698859001, Impaired nutrient utilization (findings)
Nutrition Assessment Status Not or Mildly Malnourished	Identify nutrition assessment findings of "not or mildly malnourished"	SNOMEDCT, 248324001, Well nourished (finding) SNOMEDCT, 36823005, Normal diet (finding)
Nutritional Assessment Status Severely Malnourished	Identify nutrition assessment findings of "severely malnourished"	SNOMEDCT, 102635008, Acute nutritional deficiency (finding) SNOMEDCT, 272588001, Malnutrition (calorie) (disorder) SNOMEDCT, 371597004, Emaciated (findings)
Nutrition Care Plan	Identify evidence of nutrition care plan	SNOMEDCT, 182922004, Dietary regime (regime/therapy) SNOMEDCT, 225372007, Total parenteral nutrition (regime/therapy) SNOMEDCT, 229912004, Enteral feeding (regime/therapy) SNOMEDCT, 384760004, Feeding and dietary regime (regime/therapy) SNOMEDCT, 386372009, Nutrition management (regime/therapy) SNOMEDCT, 386373004, Nutrition therapy (regime/therapy) SNOMEDCT, 410172000, Nutrition care management (procedure) SNOMEDCT, 410175003, Dietary regime management (procedure) SNOMEDCT, 413315001, Nutrition / feeding management (regime/therapy) SNOMEDCT, 418995006, Feeding regime (regime/therapy)

		<p>SNOMEDCT, 435691000124100, Diet modified for specific foods or ingredients (regime/therapy)</p> <p>SNOMEDCT, 441041000124100, Counseling about nutrition (regime/therapy)</p> <p>SNOMEDCT, 448556005, Oral nutritional support (regime/therapy)</p> <p>SNOMEDCT, 61310001, Nutrition education (procedure)</p> <p>SNOMEDCT, 709564003, Restricting oral intake (regime/therapy)</p>
Observation Services	Identify patients admitted for observation	SNOMEDCT, 448951000124107, Admission to observation unit (procedure)
ONC Administrative Sex	Identify patient sex at birth according to HL7 V3 vocabulary	<p>AdministrativeGender, Female, NA</p> <p>AdministrativeGender, Male, NA</p>
Payer	Identify patient insurance coverage according to US Public health Data Consortium Source of Payment standards	<p>SOP, 1, MEDICARE</p> <p>SOP, 11, Medicare Managed Care (Includes Medicare Advantage Plans)</p> <p>SOP, 111, Medicare HMO</p> <p>SOP, 1111, Medicare Chronic Condition Special Needs Plan (C-SNP)</p> <p>SOP, 1112, Medicare Institutional Special Needs Plan (I-SNP)</p> <p>SOP, 112, Medicare PPO</p> <p>SOP, 113, Medicare POS</p> <p>SOP, 119, Medicare Managed Care Other</p> <p>SOP, 12, Medicare (Non-managed Care)</p> <p>SOP, 121, Medicare FFS</p> <p>SOP, 122, Medicare Drug Benefit</p> <p>SOP, 123, Medicare Medical Savings Account (MSA)</p> <p>SOP, 129, Medicare Non-managed Care Other</p> <p>SOP, 13, Medicare Hospice</p> <p>SOP, 14, Dual Eligibility Medicare/Medicaid Organization</p> <p>SOP, 141, Dual Eligible Special Needs Plan (D-SNP)</p> <p>SOP, 142, Fully Integrated Dual Eligible Special Needs Plan (FIDE-SNP)</p> <p>SOP, 19, Medicare Other</p> <p>SOP, 191, Medicare Pharmacy Benefit Manager</p> <p>SOP, 2, MEDICAID</p> <p>SOP, 21, Medicaid (Managed Care)</p> <p>SOP, 211, Medicaid HMO</p> <p>SOP, 212, Medicaid PPO</p> <p>SOP, 213, Medicaid PCCM (Primary Care Case Management)</p> <p>SOP, 219, Medicaid Managed Care Other</p> <p>SOP, 22, Medicaid (Non-managed Care Plan)</p> <p>SOP, 23, Medicaid/SCHIP</p> <p>SOP, 25, Medicaid - Out of State</p> <p>SOP, 26, Medicaid - Long Term Care</p> <p>SOP, 29, Medicaid Other</p>

		<p>SOP, 291, Medicaid Pharmacy Benefit Manager SOP, 299, Medicaid - Dental SOP, 3, OTHER GOVERNMENT (Federal/State/Local) (excluding Department of Corrections) SOP, 31, Department of Defense SOP, 311, TRICARE (CHAMPUS) SOP, 3111, TRICARE Prime--HMO SOP, 3112, TRICARE Extra--PPO SOP, 3113, TRICARE Standard - Fee For Service SOP, 3114, TRICARE For Life--Medicare Supplement SOP, 3115, TRICARE Reserve Select SOP, 3116, Uniformed Services Family Health Plan (USFHP) -- HMO SOP, 3119, Department of Defense - (other) SOP, 312, Military Treatment Facility SOP, 3121, Enrolled Prime--HMO SOP, 3122, Non-enrolled Space Available SOP, 3123, TRICARE For Life (TFL) SOP, 313, Dental --Stand Alone SOP, 32, Department of Veterans Affairs SOP, 321, Veteran care-Care provided to Veterans SOP, 3211, Direct Care-Care provided in VA facilities SOP, 3212, Indirect Care-Care provided outside VA facilities SOP, 32121, Fee Basis SOP, 32122, Foreign Fee/Foreign Medical Program (FMP) SOP, 32123, Contract Nursing Home/Community Nursing Home SOP, 32124, State Veterans Home SOP, 32125, Sharing Agreements SOP, 32126, Other Federal Agency SOP, 32127, Dental Care SOP, 32128, Vision Care SOP, 322, Non-veteran care SOP, 3221, Civilian Health and Medical Program for the VA (CHAMPVA) SOP, 3222, Spina Bifida Health Care Program (SB) SOP, 3223, Children of Women Vietnam Veterans (CWVV) SOP, 3229, Other non-veteran care SOP, 33, Indian Health Service or Tribe SOP, 331, Indian Health Service - Regular SOP, 332, Indian Health Service - Contract SOP, 333, Indian Health Service - Managed Care SOP, 334, Indian Tribe - Sponsored Coverage</p>
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		<p>SOP, 34, HRSA Program SOP, 341, Title V (MCH Block Grant) SOP, 342, Migrant Health Program SOP, 343, Ryan White Act SOP, 344, Disaster-related (includes Covid-19) SOP, 349, Other SOP, 35, Black Lung SOP, 36, State Government SOP, 361, State SCHIP program (codes for individual states) SOP, 362, Specific state programs (list/ local code) SOP, 369, State, not otherwise specified (other state) SOP, 37, Local Government SOP, 371, Local - Managed care SOP, 3711, HMO SOP, 3712, PPO SOP, 3713, POS SOP, 372, FFS/Indemnity SOP, 379, Local, not otherwise specified (other local, county) SOP, 38, Other Government (Federal, State, Local not specified) SOP, 381, Federal, State, Local not specified managed care SOP, 3811, Federal, State, Local not specified - HMO SOP, 3812, Federal, State, Local not specified - PPO SOP, 3813, Federal, State, Local not specified - POS SOP, 3819, Federal, State, Local not specified - not specified managed care SOP, 382, Federal, State, Local not specified - FFS SOP, 389, Federal, State, Local not specified - Other SOP, 39, Other Federal SOP, 391, Federal Employee Health Plan - Use when known SOP, 4, DEPARTMENTS OF CORRECTIONS SOP, 41, Corrections Federal SOP, 42, Corrections State SOP, 43, Corrections Local SOP, 44, Corrections Unknown Level SOP, 5, PRIVATE HEALTH INSURANCE SOP, 51, Managed Care (Private) SOP, 511, Commercial Managed Care - HMO SOP, 512, Commercial Managed Care - PPO SOP, 513, Commercial Managed Care - POS SOP, 514, Exclusive Provider Organization SOP, 515, Gatekeeper PPO (GPPO)</p>
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		<p>SOP, 516, Commercial Managed Care - Pharmacy Benefit Manager</p> <p>SOP, 517, Commercial Managed Care - Dental</p> <p>SOP, 519, Managed Care, Other (non HMO)</p> <p>SOP, 52, Private Health Insurance - Indemnity</p> <p>SOP, 521, Commercial Indemnity</p> <p>SOP, 522, Self-insured (ERISA) Administrative Services Only (ASO) plan</p> <p>SOP, 523, Medicare supplemental policy (as second payer)</p> <p>SOP, 524, Indemnity Insurance - Dental</p> <p>SOP, 529, Private health insurance--other commercial Indemnity</p> <p>SOP, 53, Managed Care (private) or private health insurance (indemnity), not otherwise specified</p> <p>SOP, 54, Organized Delivery System</p> <p>SOP, 55, Small Employer Purchasing Group</p> <p>SOP, 56, Specialized Stand-Alone Plan</p> <p>SOP, 561, Dental</p> <p>SOP, 562, Vision</p> <p>SOP, 59, Other Private Insurance</p> <p>SOP, 6, BLUE CROSS/BLUE SHIELD</p> <p>SOP, 61, BC Managed Care</p> <p>SOP, 611, BC Managed Care - HMO</p> <p>SOP, 612, BC Managed Care - PPO</p> <p>SOP, 613, BC Managed Care - POS</p> <p>SOP, 614, BC Managed Care - Dental</p> <p>SOP, 619, BC Managed Care - Other</p> <p>SOP, 62, BC Insurance Indemnity</p> <p>SOP, 621, BC Indemnity</p> <p>SOP, 622, BC Self-insured (ERISA) Administrative Services Only (ASO)Plan</p> <p>SOP, 623, BC Medicare Supplemental Plan</p> <p>SOP, 629, BC Indemnity - Dental</p> <p>SOP, 7, MANAGED CARE, UNSPECIFIED (to be used only if one can't distinguish public from private)</p> <p>SOP, 71, HMO</p> <p>SOP, 72, PPO</p> <p>SOP, 73, POS</p> <p>SOP, 79, Other Managed Care</p> <p>SOP, 8, NO PAYMENT from an Organization/Agency/Program/Private Payer Listed</p> <p>SOP, 81, Self-pay (Includes applicants for insurance and Medicaid applicants)</p> <p>SOP, 82, No Charge</p> <p>SOP, 821, Charity</p> <p>SOP, 822, Professional Courtesy</p>
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		<p>SOP, 823, Research/Clinical Trial SOP, 83, Refusal to Pay/Bad Debt SOP, 84, Hill Burton Free Care SOP, 85, Research/Donor SOP, 89, No Payment, Other SOP, 9, MISCELLANEOUS/OTHER SOP, 91, Foreign National SOP, 92, Other (Non-government) SOP, 93, Disability Insurance SOP, 94, Long-term Care Insurance SOP, 95, Worker's Compensation SOP, 951, Worker's Comp HMO SOP, 953, Worker's Comp Fee-for-Service SOP, 954, Worker's Comp Other Managed Care SOP, 959, Worker's Comp, Other unspecified SOP, 96, Auto Insurance (includes no fault) SOP, 97, Legal Liability / Liability Insurance SOP, 98, Other specified but not otherwise classifiable (includes Hospice - Unspecified plan) SOP, 99, No Typology Code available for payment source SOP, 9999, Unavailable / No Payer Specified / Blank</p>
Race	Identify patient ethnicity according to CDC Race & Ethnicity code system	<p>CDCREC, 1002-5, American Indian or Alaska Native CDCREC, 2028-9, Asian CDCREC, 2054-5, Black or African American CDCREC, 2076-8, Native Hawaiian or Other Pacific Islander CDCREC, 2106-3, White CDCREC, 2131-1, Other Race</p>

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