



Measure Information

This document contains the information submitted by measure developers/stewards, but is organized according to NQF's measure evaluation criteria and process. The item numbers refer to those in the submission form but may be in a slightly different order here. In general, the item numbers also reference the related criteria (e.g., item 1b.1 relates to sub criterion 1b).

Brief Measure Information

NQF #: 2888

Corresponding Measures:

De.2. Measure Title: Accountable Care Organization Risk-Standardized Acute Hospital Admission Rate for Patients with Multiple Chronic Conditions

Co.1.1. Measure Steward: Centers for Medicare & Medicaid Services

De.3. Brief Description of Measure: Rate of risk-standardized acute, unplanned hospital admissions among Medicare fee-for-service (FFS) beneficiaries 65 years and older with multiple chronic conditions (MCCs) who are assigned to an Accountable Care Organization (ACO).

1b.1. Developer Rationale: People with MCCs are more likely to be admitted to the hospital than those without chronic conditions or with a single chronic condition. Additionally, they are more likely to visit the emergency department, use post-acute care (such as skilled nursing facilities), and require home health assistance [1]. No quality measures specifically designed for this population exist to assess quality of care or to enable the evaluation of whether current efforts to improve care are successful; this measure is designed to

help fill that gap as called for in NQF's "Multiple Chronic Conditions Measurement Framework." [2]

The measure is focused on ACOs because better, coordinated care should lower the risk of hospitalization for this vulnerable population. The measure is designed to illuminate variation in hospital admission rates and incentivize ACOs to develop efficient and coordinated chronic disease management strategies that anticipate and respond to patients' needs and preferences. The measure is also consistent with ACOs' commitment to deliver patient-centered care that fulfills the goals of the Department of Health and Human Services' National Quality Strategy – improving population health, providing better care, and lowering health care costs [3].

The rationale for measuring acute unplanned admissions is to assess the quality of care as experienced by the patient and to drive overall improvements in care quality, coordination, and efficiency that are not specific to certain diseases. Ambulatory care providers can act together to lower patients' risk for a wide range of acute illness requiring admission in several ways:

1. Provide optimal and accessible chronic disease management to reduce catastrophic sequelae of chronic disease. For example:
 - a. Support healthy lifestyle behaviors and optimize medical management to minimize the risk for cardiovascular events such as stroke and heart attacks; and
 - b. Carefully monitor and act early to address chronic problems that require major interventions if allowed to progress (for example, assessment and treatment of peripheral artery disease in unresolving infections in order to prevent amputation).
2. Anticipate and manage the interactions between chronic conditions. For example:
 - a. Closely monitor renal function in patients on diuretic therapy for heart failure and chronic kidney disease;
 - b. Minimize polypharmacy to reduce drug-drug and drug-disease interactions; and
 - c. Assess and treat depression to improve self-efficacy and self-management of chronic disease.
3. Provide optimal primary prevention of acute illnesses, such as recommended immunizations and screening.
4. Facilitate rapid, effective ambulatory intervention when acute illness does occur, whether related or unrelated to the chronic conditions. For example:
 - a. Promptly prescribe antibiotics for presumed bacterial pneumonia and diuretic treatment for fluid overload in heart failure;
 - b. Empower patients to recognize symptoms and to seek timely care; and
 - c. Create accessible care options for patients (e.g., weekend or evening hours; capacity to deliver intravenous medications).
5. Partner with the government, local businesses, and community organizations to improve support for patients with chronic illness. For example:
 - a. Collaborate with home nursing programs;

- b. Partner with local businesses to increase opportunities to engage in healthy lifestyle behaviors; and
- c. Provide outreach and services at senior centers.

A number of studies have shown that improvements in the delivery of health care services for ambulatory patients with MCCs can lower the risk of admission [4-13]. Demonstrated strategies include improving access to and continuity of care, supporting self-care in the home, better coordinating care across providers, and integrating social work, nursing, and medical services. The goal of this measure is to illuminate variation among ACOs in hospital admission rates for people with MCCs and incentivize ACOs to expand efforts to develop and implement efficient and coordinated chronic disease management strategies that anticipate and respond to patients' needs and preferences. Recent data suggest that ACOs are indeed focused on strategies to reduce hospital admissions and use hospital admissions to evaluate the success of their interventions. A 2018 Annual ACO Survey showed that across all ACO types, top priorities included reducing avoidable emergency department (ED) visits and inpatient admissions, as well as reducing readmissions through better care transitions [14]. In a series of case studies on ACOs, ACOs with palliative care and serious illness programs often judged the outcomes of their programs by evaluating their effect on ED visits and hospital admissions [14]. These findings further support the use of hospital admissions as important outcomes in this setting as they are already widely recognized as signals of quality.

Citations:

1. Centers for Medicare and Medicaid Services. Chronic Conditions Among Medicare Beneficiaries, Chartbook: 2012 Edition. 2012; <http://www.cms.gov/Research-Statistics-Data-and-Systems/Statistics-Trends-and-Reports/Chronic-Conditions/Downloads/2012Chartbook.pdf>. Accessed March 18, 2014.
2. National Quality Forum (NQF). Multiple Chronic Conditions Measurement Framework. 2012; <http://www.qualityforum.org/WorkArea/linkit.aspx?LinkIdentifier=id&ItemID=71227>
3. U.S. Department of Health and Human Services. Multiple chronic conditions—A strategic framework: Optimum health and quality of life for individuals with multiple chronic conditions. December 2010; http://www.hhs.gov/ash/initiatives/mcc/mcc_framework.pdf. Accessed March 20, 2014.
4. Brown RS, Peikes D, Peterson G, Schore J, Razafindrakoto CM. Six features of Medicare coordinated care demonstration programs that cut hospital admissions of high-risk patients. *Health Aff (Millwood)*. 2012;31(6):1156-1166.
5. van Loenen T, van den Berg MJ, Westert GP, Faber MJ. Organizational aspects of primary care related to avoidable hospitalization: a systematic review. *Fam Pract*. 2014;31(5):502-516.
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9. Bazemore, A., et al. (2018). "Higher Primary Care Physician Continuity is Associated With Lower Costs and Hospitalizations." *Ann Fam Med*. 16(6): 492-497.
10. O'Malley, A. S., et al. (2019). "New approaches to measuring the comprehensiveness of primary care physicians." *Health Serv Res*. 54(2): 356-366.
11. Matzke GR, Moczygamba LR, Williams KJ, Czar MJ, Lee WT. Impact of a pharmacist-physician collaborative care model on patient outcomes and health services utilization. *American Journal of Health-System Pharmacy*. 2018;75(14):1039-1047
12. Ruiz S, Snyder LP, Rotondo C, Cross-Barnet C, Colligan EM, Giuriceo K. Innovative Home Visit Models Associated With Reductions In Costs, Hospitalizations, And Emergency Department Use. *Health Affairs*. 2017;36(3):425-432
13. Edwards ST, Saha S, Prentice JC, Pizer SD. Preventing Hospitalization with Veterans Affairs Home-Based Primary Care: Which Individuals Benefit Most? *Journal of the American Geriatrics Society*. 2017;65(8):1676-1683
14. Roiland R, Bleser WK, Muhlestein D, Saunders RS. How Are ACOs Prioritizing Palliative Care and Other Serious Illness Strategies? *Health Affairs Blog*. 2020; published January 7, 2020.

S.4. Numerator Statement: The outcome for this measure is the number of acute unplanned hospital admissions per 100 person-years at risk for admission during the measurement period.

S.6. Denominator Statement: Patients included in the measure (target patient population)

The target patient population for the outcome includes Medicare FFS patients aged 65 years and older with multiple chronic

conditions (MCCs).

Attribution:

The outcome is attributed to the ACO to which the patient is assigned. (More details are provided in the next section.)

Person-time at risk

Persons are considered at risk for hospital admission if they are alive, enrolled in FFS Medicare, and not in the hospital during the measurement period. In addition to time spent in the hospital, we also exclude from at-risk time: 1) time spent in a SNF or acute rehabilitation facility; 2) the time within 10 days following discharge from a hospital, SNF, or acute rehabilitation facility; and 3) time after entering hospice care.

S.8. Denominator Exclusions: The measure excludes the following patients:

1. Patients without continuous enrollment in Medicare Part A or B during the measurement period.
2. Patient enrolled in hospice at any time during the year prior to the measurement year or at the start of the measurement year.
3. Patients without any visits with any of the TINs associated with the attributed ACO during the measurement year or the year prior to the measurement year.
4. Patients not at risk for hospitalization during the measurement year.

De.1. Measure Type: Outcome

S.17. Data Source: Claims, Enrollment Data, Other

S.20. Level of Analysis: Other

IF Endorsement Maintenance – Original Endorsement Date: Dec 09, 2016 **Most Recent Endorsement Date:** Dec 09, 2016

IF this measure is included in a composite, NQF Composite#/title:

IF this measure is paired/grouped, NQF#/title:

De.4. IF PAIRED/GROUPED, what is the reason this measure must be reported with other measures to appropriately interpret results? Not applicable.

1. Evidence, Performance Gap, Priority – Importance to Measure and Report

Extent to which the specific measure focus is evidence-based, important to making significant gains in healthcare quality, and improving health outcomes for a specific high-priority (high-impact) aspect of healthcare where there is variation in or overall less-than-optimal performance. ***Measures must be judged to meet all sub criteria to pass this criterion and be evaluated against the remaining criteria.***

1a. Evidence to Support the Measure Focus – See attached Evidence Submission Form

[NQF_2888_ACO_MCC_EvidenceAttachment_FINAL.docx](#)

1a.1 For Maintenance of Endorsement: Is there new evidence about the measure since the last update/submission?

Do not remove any existing information. If there have been any changes to evidence, the Committee will consider the new evidence. Please use the most current version of the evidence attachment (v7.1). Please use red font to indicate updated evidence.

Yes

1b. Performance Gap

Demonstration of quality problems and opportunity for improvement, i.e., data demonstrating:

- considerable variation, or overall less-than-optimal performance, in the quality of care across providers; and/or
- Disparities in care across population groups.

1b.1. Briefly explain the rationale for this measure (e.g., how the measure will improve the quality of care, the benefits or improvements in quality envisioned by use of this measure)

If a COMPOSITE (e.g., combination of component measure scores, all-or-none, any-or-none), SKIP this question and answer the

composite questions.

People with MCCs are more likely to be admitted to the hospital than those without chronic conditions or with a single chronic condition. Additionally, they are more likely to visit the emergency department, use post-acute care (such as skilled nursing facilities), and require home health assistance [1]. No quality measures specifically designed for this population exist to assess quality of care or to enable the evaluation of whether current efforts to improve care are successful; this measure is designed to help fill that gap as called for in NQF's "Multiple Chronic Conditions Measurement Framework." [2]

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Conditions/Downloads/2012Chartbook.pdf. Accessed March 18, 2014.

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3. U.S. Department of Health and Human Services. Multiple chronic conditions—A strategic framework: Optimum health and quality of life for individuals with multiple chronic conditions. December 2010; http://www.hhs.gov/ash/initiatives/mcc/mcc_framework.pdf. Accessed March 20, 2014.
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14. Roiland R, Bleser WK, Muhlestein D, Saunders RS. How Are ACOs Prioritizing Palliative Care and Other Serious Illness Strategies? *Health Affairs Blog*. 2020; published January 7, 2020.

1b.2. Provide performance scores on the measure as specified (current and over time) at the specified level of analysis. *(This is required for maintenance of endorsement. Include mean, std dev, min, max, interquartile range, scores by decile. Describe the data source including number of measured entities; number of patients; dates of data; if a sample, characteristics of the entities include.) This information also will be used to address the sub-criterion on improvement (4b1) under Usability and Use.*

The updated ACO MCC measure that is described in this NQF submission is currently not in use. Below we provide results from the original ACO MCC measure that is in use in the Medicare Shared Savings Program (MSSP).

The number of SSP ACOs and beneficiaries has increased over time. In 2012/2014, there were 220 ACOs who provided care to over 3 million beneficiaries, 2017: 480 ACOs and 9 million beneficiaries, 2020: 517 ACOs and over 11 million beneficiaries.

Performance Year (PY)// ACOs (N)// Average RSAAR// Reconciled ACOs Eligible for Quality Improvement that Significantly Improved on ACO-38 (N/%)
PY15//397//62.92//--
PY16//432//59.81//233 (70.2%)
PY17//480//61.76//92 (24.2%)
PY18//559//59.03//317 (73.4%)
PY19//553//58.13//253 (51.1%)

Range of performance for the updated ACO MCC measure.

The updated ACO MCC measure is not currently in use. Measure testing for this NQF submission for the updated ACO MCC measure used data for performance year 2018. For this performance period, total of 2,515,727 Medicare FFS MCC patients were attributed to 559 ACOs that are part of MSSP. Acute, unplanned hospital admissions were identified using 2018 Medicare FFS institutional inpatient claims. Overall, across ACOs, RSAAR measure scores ranged from 23.6 to 53.3 per 100 person-years, with a median of 38.6 and an interquartile range of 36.4 to 41.5. The mean RSAAR and standard deviation were 38.9 ± 4.2 admissions per 100 person-years.

Below shows the range of RSAAR within each decile:

Decile	Range of RSAAR
1	[23.6 - 33.7]
2	(33.7 - 35.7]
3	(35.7 - 36.8]
4	(36.9 - 37.8]
5	(37.8 - 38.6]
6	(38.6 - 39.7]
7	(39.7 - 40.9]
8	(40.9 - 42.2]
9	(42.2 - 44.3]
10	(44.3 - 53.3]

1b.3. If no or limited performance data on the measure as specified is reported in 1b2, then provide a summary of data from the literature that indicates opportunity for improvement or overall less than optimal performance on the specific focus of measurement.

N/A; we provide performance data in 1b.2.

1b.4. Provide disparities data from the measure as specified (current and over time) by population group, e.g., by race/ethnicity, gender, age, insurance status, socioeconomic status, and/or disability. (*This is required for maintenance of endorsement. Describe the data source including number of measured entities; number of patients; dates of data; if a sample, characteristics of the entities included.*) For measures that show high levels of performance, i.e., “topped out”, disparities data may demonstrate an opportunity for improvement/gap in care for certain sub-populations. This information also will be used to address the sub-criterion on improvement (4b1) under Usability and Use.

The final patient-level model includes two social risk factors: Agency for Healthcare Research and Quality (AHRQ) Socioeconomic Status (SES) Index (lowest quartile vs. upper three quartiles) and an area-level measure of specialist physician density (lowest quartile vs. upper three quartiles). In the multivariable model that included both of these social risk factors along with the demographic and clinical risk adjusters, we found relatively modest effects for the social risk factor variables. Their rate ratios and 95% confidence intervals were 1.08 (1.07, 1.09) for the AHRQ SES variable, and 1.03 (1.02, 1.04), for the specialist physician density variable.

Because these social risk variables are in the measure’s model, below we show the distribution of measure scores stratified by the proportion of patients with dual eligibility, for which the measure is not adjusted.

Distribution of ACO MCC RSAARs by Proportion of Patients with Dual Eligibility

Quartile for proportion of dual-eligible patients

Q1 (0.6%-5.9%); Q2 (5.9%-9.9%); Q3 (10.0%-15.3%); Q4 (15.3%-91.5%)

Number of ACOs: 139//140//140//140

Mean: 36.8//39.5//39.4//39.7

Std Dev: 4.1//3.8//3.6//4.6

Maximum: 48.1 //50.0//53.3//52.3

99th Percentile: 48.1//49.6//48.4//48.6

95th Percentile: 43.4//46.3//44.7//47.1

90th Percentile: 41.5//44.3//43.7//45.8

Upper Quartile: 39.4//41.6//41.9//42.8

Median: 37.0//39.4//39.0//39.2

Lower Quartile: 33.8//37.0//37.0//37.1

10th Percentile: 31.0//35.2//35.1//34.6

5th Percentile: 29.5//33.9//33.8//33.1

1st Percentile: 27.6//30.6//31.9//26.2

Minimum: 26.2//29.0//31.5//23.6

For more information about the testing of disparities data, please review section 1.8 and section 2b3.3 in the testing attachment.

1b.5. If no or limited data on disparities from the measure as specified is reported in 1b.4, then provide a summary of data from the literature that addresses disparities in care on the specific focus of measurement. Include citations. Not necessary if performance data provided in 1b.4

Please see testing described in section 1b.4 above and in sections 1.8 and 2b3.3 of the testing attachment.

2. Reliability and Validity—Scientific Acceptability of Measure Properties

Extent to which the measure, as specified, produces consistent (reliable) and credible (valid) results about the quality of care when implemented. **Measures must be judged to meet the sub criteria for both reliability and validity to pass this criterion and be evaluated against the remaining criteria.**

2a.1. Specifications The measure is well defined and precisely specified so it can be implemented consistently within and across organizations and allows for comparability. eMeasures should be specified in the Health Quality Measures Format (HQMF) and the Quality Data Model (QDM).

De.5. Subject/Topic Area (check all the areas that apply):

Behavioral Health : Depression, Cardiovascular, Cardiovascular : Arrhythmia, Cardiovascular : Congestive Heart Failure, Cardiovascular : Coronary Artery Disease, Cardiovascular : Coronary Artery Disease (AMI), Neurology, Neurology : Stroke/Transient Ischemic Attack (TIA), Renal : Chronic Kidney Disease (CKD), Respiratory : Asthma, Respiratory : Chronic Obstructive Pulmonary Disease (COPD)

De.6. Non-Condition Specific(check all the areas that apply):

Care Coordination, Care Coordination : Readmissions, Health and Functional Status : Change, Health and Functional Status : Nutrition, Health and Functional Status : Total Health, Immunization, Primary Prevention, Safety, Safety : Complications, Safety : Medication, Safety : Overuse

De.7. Target Population Category (Check all the populations for which the measure is specified and tested if any):

Elderly, Populations at Risk : Individuals with multiple chronic conditions

S.1. Measure-specific Web Page (Provide a URL link to a web page specific for this measure that contains current detailed specifications including code lists, risk model details, and supplemental materials. Do not enter a URL linking to a home page or to general information.)

Not applicable.

S.2a. If this is an eMeasure, HQMF specifications must be attached. Attach the zipped output from the eMeasure authoring tool (MAT) - if the MAT was not used, contact staff. (Use the specification fields in this online form for the plain-language description of the specifications)

This is not an eMeasure Attachment:

S.2b. Data Dictionary, Code Table, or Value Sets (and risk model codes and coefficients when applicable) must be attached. (Excel or csv file in the suggested format preferred - if not, contact staff)

Attachment Attachment: NQF_ACO_MCC_DataDictionary_07.09.20.xlsx

S.2c. Is this an instrument-based measure (i.e., data collected via instruments, surveys, tools, questionnaires, scales, etc.)? Attach copy of instrument if available.

No, this is not an instrument-based measure Attachment:

S.2d. Is this an instrument-based measure (i.e., data collected via instruments, surveys, tools, questionnaires, scales, etc.)? Attach copy of instrument if available.

Not an instrument-based measure

S.3.1. For maintenance of endorsement: Are there changes to the specifications since the last updates/submission. If yes, update the specifications for S1-2 and S4-22 and explain reasons for the changes in S3.2.

Yes

S.3.2. For maintenance of endorsement, please briefly describe any important changes to the measure specifications since last measure update and explain the reasons.

Since initial endorsement of the Accountable Care Organization Risk-Standardized Acute Hospital Admission Rate for Patients with Multiple Chronic Conditions measure (hereafter referred to as the “original ACO MCC measure”), we have made several changes, including updating the cohort of patients to include diabetes as a qualifying condition, narrowing the outcome, and adding frailty and social risk factors to the risk adjustment model. (In this document we refer to the updated measure submitted for endorsement maintenance as the “updated ACO MCC measure.” The details of these changes are outlined below. Note also that these changes to the measure were made to align the updated ACO MCC measure (the version submitted here for endorsement maintenance) with the analogous measure that is attributed to clinician-groups in the Merit-Based Incentive Payment System (MIPS), “Clinician Group Risk-standardized Acute Hospital Admission Rate for Patients with Multiple Chronic Conditions under the Merit-based Incentive Payment System,” (hereafter referred to as the MIPS MCC measure), which was submitted for initial NQF endorsement in this same cycle.

Below we provide the details of the updates that were made to the original ACO MCC measure:

1. Cohort: We added diabetes as a cohort-qualifying condition.

Rationale: The specific list of chronic conditions for the updated ACO MCC measure, except for diabetes, is the same as the original ACO MCC measure, and has been vetted nationally and published in the literature. [1] In brief, it reflects the chronic conditions that, in combination, put patients at high risk of admission. In adapting the original ACO measure for the MIPS setting, we added diabetes as a cohort-qualifying condition based on input from our MIPS MCC TEP and further guidance from CMS. The inclusion of diabetes acknowledges the complexity that diabetes introduces to caring for patients with MCCs. We then applied this update to the original ACO MCC measure, to align the ACO and MIPS measures.

2. Outcome: We narrowed the outcome to focus on admissions where risk can be reduced by providing high-quality ambulatory care.

Rationale: Not all types of admissions reflect the quality of care being provided to patients with MCCs. A key consideration in re-defining the outcome was focusing on admissions where risk can be reduced by providing high-quality care. In narrowing the outcome, the goal was to include an easily explained, consensus-based, actionable subset of admissions that can be influenced by outpatient care. For example, admissions related to complications of procedures or surgeries and admissions related to accidents or injuries were excluded. See Section S.5 for details on the outcome definition.

3. Risk-adjustment: We added novel frailty risk variables and social risk factors to the risk-adjustment model for the MIPS measure, and then applied the model to the updated ACO MCC measure.

Rationale: CMS wanted to align the ACO MCC and MIPS MCC measures.

Citations

[1] Drye EE, Altaf FK, Lipska KJ, et al. Defining Multiple Chronic Conditions for Quality Measurement. Med Care. 2018;56(2):19-201

S.4. Numerator Statement (Brief, narrative description of the measure focus or what is being measured about the target population, i.e., cases from the target population with the target process, condition, event, or outcome) DO NOT include the rationale for the measure.

IF an OUTCOME MEASURE, state the outcome being measured. Calculation of the risk-adjusted outcome should be described in the calculation algorithm (S.14).

The outcome for this measure is the number of acute unplanned hospital admissions per 100 person-years at risk for admission during the measurement period.

S.5. Numerator Details *(All information required to identify and calculate the cases from the target population with the target process, condition, event, or outcome such as definitions, time period for data collection, specific data collection items/responses, code/value sets – Note: lists of individual codes with descriptors that exceed 1 page should be provided in an Excel or csv file in required format at S.2b)*

IF an OUTCOME MEASURE, describe how the observed outcome is identified/counted. Calculation of the risk-adjusted outcome should be described in the calculation algorithm (S.14).

Outcome Definition

The outcome for this measure is the number of acute, unplanned hospital admissions per 100 person-years at risk for admission during the measurement period.

Time Period

Number of admissions are counted while the patient is considered at risk for an admission during the measurement year.

Excluded Admissions

The numerator (outcome) does not include the following admissions because they do not reflect the quality of care provided by ambulatory care clinicians who are managing the care of MCC patients:

1. Planned hospital admissions;
2. Admissions that occur directly from a skilled nursing facility (SNF) or acute rehabilitation facility;
3. Admissions that occur within a 10-day “buffer period” of time after discharge from a hospital, SNF, or acute rehabilitation facility;
4. Admissions that occur after the patient has entered hospice;
5. Admissions related to complications of procedures or surgeries;
6. Admissions related to accidents or injuries; or
7. Admissions that occur prior to the first visit with the assigned clinician or clinician group.

Clarification regarding the 10-day “buffer period”

The 10-day “buffer period” is a numerator (or outcome) exclusion but it also affects the denominator (person-time at risk); see below in Section S.6 and S.7. The 10-day buffer period (10 days following discharge from a hospital) is a period of transition back to community-based care, and other factors in addition to ambulatory care, including care received in the hospital and post-discharge planning, contribute to the risk of admission; therefore, the measure does not hold clinicians accountable for admissions in this timeframe. This buffer period allows time for patients to be seen within 7 days of discharge as recommended in CMS’s Transitional Care Management (TCM) service guidelines and for the ambulatory care provider’s care plan to take effect. CMS’s TCM service guidelines encourage providers to have a face-to-face visit within 7 days of discharge for Medicare patients with high medical decision complexity.

Identification of planned admissions

To identify planned admissions, the measure adopted an algorithm previously developed for CMS’s hospital readmission measures, CMS’s Planned Readmission Algorithm Version 4.0. [1,2] In brief, the algorithm uses the procedure codes and principal discharge diagnosis code on each hospital claim to identify admissions that are typically planned. A few specific, limited types of care are always considered planned (for example, major organ transplant, rehabilitation, and maintenance chemotherapy). Otherwise, a planned admission is defined as a non-acute admission for a scheduled procedure (for example, total hip replacement or cholecystectomy). Admissions for an acute illness are never considered planned. For specific codes included in the planned admission algorithm, please see Tables PAA1-PAA4 with the codes for the CMS Planned Admission Algorithm in the accompanying data dictionary.

Identification of admissions that occur directly from a SNF or acute rehabilitation facility

Claims for SNF and acute rehabilitation facility stays, which help determine the outcome definition, were obtained using CMS’s Integrated Data Repository (IDR).

Identification of admissions that occur after the patient has entered hospice

The status of enrollment in Medicare Parts A and B and Medicare’s hospice benefit for the measurement year and the year prior were obtained from the CMS Medicare Enrollment Database.

Identification of admissions related to complications of procedures or surgeries (including small bowel obstruction), and accidents or injuries

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Using the Agency for Healthcare Research and Quality's (AHRQ's) Clinical Classifications Software (CCS), which clusters diagnoses into clinically meaningful categories using International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) codes, we exclude from the outcome admissions related to the following 23 CCS categories. For specific ICD codes included, please refer to AHRQ's CCS Version 2019.1, Fiscal Year 2020.

a) Complications of procedures or surgeries

1. 145: Intestinal obstruction without hernia
2. 237: Complication of device; implant or graft
3. 238: Complications of surgical procedures or medical care
4. 257: Other aftercare

b) Accidents or injuries

5. 2601 E Codes: Cut/pierce
6. 2602 E Codes: Drowning/submersion
7. 2604 E Codes: Fire/burn
8. 2605 E Codes: Firearm
9. 2606 E Codes: Machinery
10. 2607 E Codes: Motor vehicle traffic (MVT)
11. 2608 E Codes: Pedal cyclist; not MVT
12. 2609 E Codes: Pedestrian; not MVT
13. 2610 E Codes: Transport; not MVT
14. 2611 E Codes: Natural/environment
15. 2612 E Codes: Overexertion
16. 2613 E Codes: Poisoning
17. 2614 E Codes: Struck by; against
18. 2615 E Codes: Suffocation
19. 2616 E Codes: Adverse effects of medical care
20. 2618 E Codes: Other specified and classifiable
21. 2619 E Codes: Other specified; NEC
22. 2620 E Codes: Unspecified
23. 2621 E Codes: Place of occurrence

Citations

1. Yale New Haven Health Services Corporation – Center for Outcomes Research & Evaluation (YNHHSC/CORE). 2018 All-Cause Hospital Wide Measure Updates and Specifications Report - Hospital-Level 30-Day Risk-Standardized Readmission Measure – Version 7.0. Centers for Medicare & Medicaid Services; March 2018.
2. Horwitz L, Grady J, Cohen D, et al. Development and validation of an algorithm to identify planned readmissions from claims data. *Journal of Hospital Medicine*. Oct 2015;10(10):670-677.

S.6. Denominator Statement (*Brief, narrative description of the target population being measured*)

Patients included in the measure (target patient population)

The target patient population for the outcome includes Medicare FFS patients aged 65 years and older with multiple chronic conditions (MCCs).

Attribution:

The outcome is attributed to the ACO to which the patient is assigned. (More details are provided in the next section.)

Person-time at risk

Persons are considered at risk for hospital admission if they are alive, enrolled in FFS Medicare, and not in the hospital during the measurement period. In addition to time spent in the hospital, we also exclude from at-risk time: 1) time spent in a SNF or acute rehabilitation facility; 2) the time within 10 days following discharge from a hospital, SNF, or acute rehabilitation facility; and 3) time after entering hospice care.

S.7. Denominator Details (All information required to identify and calculate the target population/denominator such as definitions, time period for data collection, specific data collection items/responses, code/value sets – Note: lists of individual codes with descriptors that exceed 1 page should be provided in an Excel or csv file in required format at S.2b.)

IF an OUTCOME MEASURE, describe how the target population is identified. Calculation of the risk-adjusted outcome should be described in the calculation algorithm (S.14).

Patients included in the measure (target patient population)

The cohort, or group of patients included in the measure, is comprised of patients whose combinations of chronic conditions put them at high risk of admission and whose admission rates could be lowered through better care. This definition reflects NQF's "Multiple Chronic Conditions Measurement Framework," which defines patients with MCCs as people "having two or more concurrent chronic conditions that ... act together to significantly increase the complexity of management, and affect functional roles and health outcomes, compromise life expectancy, or hinder self-management." [1]

The specific inclusion criteria are as follows:

1. Patient is alive at the start of the measurement period and has two or more of nine chronic condition disease groups in the year prior to the measurement period.

Chronic conditions, except for diabetes, are defined using CMS's Chronic Conditions Data Warehouse (CCW). For diabetes, we used the diabetes cohort definition from the Accountable Care Organization (ACO) diabetes admission measure developed by CORE (v2018a ACO-36) as opposed to the definition used in CCW, which includes diagnoses for secondary and drug-induced diabetic conditions that are not the focus of the MIPS MCC admission measure. See Table 1 in the accompanying data dictionary for the specific codes used to define the nine cohort-qualifying conditions.

1. Acute myocardial infarction (AMI),
2. Alzheimer's disease and related disorders or senile dementia,
3. Atrial fibrillation,
4. Chronic kidney disease (CKD),
5. Chronic obstructive pulmonary disease (COPD) or asthma,
6. Depression,
7. Diabetes,
8. Heart failure, and
9. Stroke or transient ischemic attack (TIA).

Rationale: As noted above, this definition of MCCs is consistent with NQF's "Multiple Chronic Conditions Measurement Framework" and except for diabetes, is the same as the original ACO MCC measure [2]. Diabetes was added as a cohort-qualifying condition based on input from our TEP for the MIPS version of this measure, and further guidance from CMS. The inclusion of diabetes acknowledges the complexity that diabetes introduces to caring for patients with MCCs.

2. Patient is aged ≥65 years at the start of the year prior to the measurement period.

Rationale: Younger Medicare patients represent a distinct population with dissimilar characteristics and outcomes. Additionally, these patients tend to cluster among certain providers. These factors make risk adjustment difficult.

3. Patient is a Medicare FFS beneficiary with continuous enrollment in Medicare Parts A and B during the year prior to the measurement period.

Rationale: Enrollment is necessary to provide clinical information for cohort identification and risk adjustment.

4. Patient is attributed to a Medicare Shared Savings Program ACO.

Rationale: This measure is designed for ACOs that are part of MSSP and thus includes patients with MCCs who are attributed to one of the MSSP ACOs. The outcome is attributed to the ACO to which the patient is assigned. Patients are assigned to ACOs according to the specific ACO program assignment algorithm. This measure is limited to ACOs that are part of the Medicare Shared Savings Program (MSSP) where patients are retrospectively assigned to an ACO if they obtained the plurality of their primary care through the ACO's providers during the measurement year. Information on ACO beneficiary assignment can be found here: <https://www.cms.gov/Medicare/Medicare-Fee-for-Service-Payment/sharedsavingsprogram/Downloads/Shared-Savings-Losses-Assignment-Spec-V6.pdf>.

Citations

1. National Quality Forum. Multiple Chronic Conditions Measurement Framework.

<http://www.qualityforum.org/WorkArea/linkit.aspx?LinkIdentifier=id&ItemID=71227>. Accessed February 20, 2019.

2. Drye EE, Altaf FK, Lipska KJ et al. Defining Multiple Chronic Conditions for Quality Measurement. *Med Care*. 2018; 56(2):193-201.

S.8. Denominator Exclusions *(Brief narrative description of exclusions from the target population)*

The measure excludes the following patients:

1. Patients without continuous enrollment in Medicare Part A or B during the measurement period.
2. Patient enrolled in hospice at any time during the year prior to the measurement year or at the start of the measurement year.
3. Patients without any visits with any of the TINs associated with the attributed ACO during the measurement year or the year prior to the measurement year.
4. Patients not at risk for hospitalization during the measurement year.

S.9. Denominator Exclusion Details *(All information required to identify and calculate exclusions from the denominator such as definitions, time period for data collection, specific data collection items/responses, code/value sets – Note: lists of individual codes with descriptors that exceed 1 page should be provided in an Excel or csv file in required format at S.2b.)*

The rationale for each exclusion is provided below:

1. Patients without continuous enrollment in Medicare Part A or B during the measurement period.

Rationale: The measure excludes these patients to ensure full data availability for outcome assessment and attribution.

2. Patients enrolled in hospice during the year prior to the measurement year or at the start of the measurement year.

Rationale: The measure excludes these patients even though once a patient enters hospice care, a goal of care is to prevent the need for hospital care. However, it may be difficult to influence end-of-life care once a patient is enrolled in hospice and served by a hospice team.

3. Patients without any visits (Evaluation & Management [E&M] or other) with any of the TINs associated with the attributed ACO during the measurement year and the year prior to the measurement year.

Rationale: These patients are excluded because the start of their time-at-risk cannot be ascertained.

4. Patients not at risk for hospitalization at any time during the measurement year.

Rationale: The outcomes for these patients cannot be assessed as they are not at risk. For example, if the first visit to the attributed ACO occurred after the patient has entered hospice, the patient would not have any time at risk and would thus be excluded. See section 2.4.3 of the attached MIPS MCC technical report for methods used to calculate person-time at risk.

Clarification of 10-day buffer period:

The 10-day “buffer period” is a numerator (or outcome) exclusion (see section S.5) but it also affects the denominator (person-time at risk). Persons are considered at risk for hospital admission if they are alive, enrolled in FFS Medicare, and not in the hospital during the measurement period. In addition to time spent in the hospital, we also exclude from at-risk time: 1) time spent in a SNF or acute rehabilitation facility; 2) the time within 10 days following discharge from a hospital, SNF, or acute rehabilitation facility; and 3) time after entering hospice care. Note that the patient is not removed from the denominator, we are just subtracting the 10-days of person-time.

The 10-day buffer period (10 days following discharge from a hospital) is a period of transition back to community-based care, and other factors in addition to ambulatory care, including care received in the hospital and post-discharge planning, contribute to the risk of admission; therefore, the measure does not hold clinicians accountable for admissions in this timeframe. This buffer period allows time for patients to be seen within 7 days of discharge as recommended in CMS’s Transitional Care Management (TCM) service guidelines and for the ambulatory care provider’s care plan to take effect. CMS’s TCM service guidelines encourage providers

to have a face-to-face visit within 7 days of discharge for Medicare patients with high medical decision complexity.

S.10. Stratification Information *(Provide all information required to stratify the measure results, if necessary, including the stratification variables, definitions, specific data collection items/responses, code/value sets, and the risk-model covariates and coefficients for the clinically-adjusted version of the measure when appropriate – Note: lists of individual codes with descriptors that exceed 1 page should be provided in an Excel or csv file in required format with at S.2b.)*

Not applicable. This measure is not stratified.

S.11. Risk Adjustment Type (Select type. Provide specifications for risk stratification in measure testing attachment)

Statistical risk model

If other:

S.12. Type of score:

Rate/proportion

If other:

S.13. Interpretation of Score *(Classifies interpretation of score according to whether better quality is associated with a higher score, a lower score, a score falling within a defined interval, or a passing score)*

Better quality = Lower score

S.14. Calculation Algorithm/Measure Logic *(Diagram or describe the calculation of the measure score as an ordered sequence of steps including identifying the target population; exclusions; cases meeting the target process, condition, event, or outcome; time period for data, aggregating data; risk adjustment; etc.)*

We begin by identifying the cohort of MCC patients by applying the inclusion/exclusion criteria. We use MSSP ACO assignment to identify MCC patients attributed to MSSP ACOs. The number of admissions and time at risk in the measurement period are then calculated for each patient based on our measure specifications. The measure is risk-adjusted for demographic, clinical, and social risk factors. For the score calculation, the measure uses a hierarchical (two-level) statistical model that accounts for the clustering of patients within ACOs and accommodates the varying patient sample sizes of different providers. The measure uses a negative binomial with linear variance (NB-1) model since the measure's outcome is a count of the number of admissions for MCC patients during the measurement period. The first level of the model adjusts for patient factors. The relationship between patient risk factors and the outcome of admissions is determined based on all patients attributed to ACOs. Therefore, the "expected" number of admissions (described below) for each ACO is based on the performance of all ACOs in the MSSP program, nationwide.

The second level of the model estimates a random-intercept term that reflects the ACO's contribution to admission risk, based on their actual admission rate, the performance of other providers, their case mix, and their sample size.

The measure score is a risk-standardized acute admission rate (RSAAR), calculated as the ratio of the number of predicted admissions to the number of expected admissions multiplied by the crude national rate. The predicted to expected ratio of admissions is analogous to an observed over expected ratio, but the numerator accounts for clustering, sample-size variation, and provider-specific performance. The expected number of admissions is calculated based on the provider's case mix and average intercept among all MSSP ACOs. The predicted number of admissions is calculated based on the provider's case mix and the estimated provider-specific random intercept term. We multiply the predicted to expected ratio for each provider by a constant – the crude rate of acute, unplanned admissions among all MSSP ACOs – for ease of interpretation.

S.15. Sampling *(If measure is based on a sample, provide instructions for obtaining the sample and guidance on minimum sample size.)*

If an instrument-based performance measure (e.g., PRO-PM), identify whether (and how) proxy responses are allowed.

This is not based on a sample or survey.

S.16. Survey/Patient-reported data *(If measure is based on a survey or instrument, provide instructions for data collection and guidance on minimum response rate.)*

Specify calculation of response rates to be reported with performance measure results.

This is not based on a sample or survey.

S.17. Data Source *(Check ONLY the sources for which the measure is SPECIFIED AND TESTED).*

If other, please describe in S.18.

Claims, Enrollment Data, Other

S.18. Data Source or Collection Instrument (Identify the specific data source/data collection instrument (e.g. name of database, clinical registry, collection instrument, etc., and describe how data are collected.)

IF instrument-based, identify the specific instrument(s) and standard methods, modes, and languages of administration.

Medicare administrative claims and enrollment data from calendar years 2017 and 2018, 2013-2017 American Community Survey, and 2017-2018 Area Health Resource File.

S.19. Data Source or Collection Instrument (available at measure-specific Web page URL identified in S.1 OR in attached appendix at A.1)

No data collection instrument provided

S.20. Level of Analysis (Check ONLY the levels of analysis for which the measure is SPECIFIED AND TESTED)

Other

S.21. Care Setting (Check ONLY the settings for which the measure is SPECIFIED AND TESTED)

Outpatient Services

If other:

S.22. COMPOSITE Performance Measure - Additional Specifications (Use this section as needed for aggregation and weighting rules, or calculation of individual performance measures if not individually endorsed.)

N/A; this measure is not a composite.

2. Validity – See attached Measure Testing Submission Form

NQF_2888_ACO_MCC_TestingForm_081920_FINAL2A-637418329210039654.docx

2.1 For maintenance of endorsement

Reliability testing: If testing of reliability of the measure score was not presented in prior submission(s), has reliability testing of the measure score been conducted? If yes, please provide results in the Testing attachment. Please use the most current version of the testing attachment (v7.1). Include information on all testing conducted (prior testing as well as any new testing); use red font to indicate updated testing.

Yes

2.2 For maintenance of endorsement

Has additional empirical validity testing of the measure score been conducted? If yes, please provide results in the Testing attachment. Please use the most current version of the testing attachment (v7.1). Include information on all testing conducted (prior testing as well as any new testing); use red font to indicate updated testing.

Yes

2.3 For maintenance of endorsement

Risk adjustment: For outcome, resource use, cost, and some process measures, risk-adjustment that includes social risk factors is not prohibited at present. Please update sections 1.8, 2a2, 2b1,2b4.3 and 2b5 in the Testing attachment and S.140 and S.11 in the online submission form. NOTE: These sections must be updated even if social risk factors are not included in the risk-adjustment strategy. You MUST use the most current version of the Testing Attachment (v7.1) -- older versions of the form will not have all required questions.

Yes - Updated information is included

3. Feasibility

Extent to which the specifications including measure logic, require data that are readily available or could be captured without undue burden and can be implemented for performance measurement.

3a. Byproduct of Care Processes

For clinical measures, the required data elements are routinely generated and used during care delivery (e.g., blood pressure, lab test, diagnosis, medication order).

3a.1. Data Elements Generated as Byproduct of Care Processes.

Coded by someone other than person obtaining original information (e.g., DRG, ICD-9 codes on claims)

If other:

3b. Electronic Sources

The required data elements are available in electronic health records or other electronic sources. If the required data are not in electronic health records or existing electronic sources, a credible, near-term path to electronic collection is specified.

3b.1. To what extent are the specified data elements available electronically in defined fields (i.e., data elements that are needed to compute the performance measure score are in defined, computer-readable fields) Update this field for **maintenance of endorsement**.

ALL data elements are in defined fields in electronic claims

3b.2. If ALL the data elements needed to compute the performance measure score are not from electronic sources, specify a credible, near-term path to electronic capture, OR provide a rationale for using other than electronic sources. For **maintenance of endorsement**, if this measure is not an eMeasure (eCQM), please describe any efforts to develop an eMeasure (eCQM).

N/A

3b.3. If this is an eMeasure, provide a summary of the feasibility assessment in an attached file or make available at a measure-specific URL. Please also complete and attach the NQF Feasibility Score Card.

Attachment:

3c. Data Collection Strategy

Demonstration that the data collection strategy (e.g., source, timing, frequency, sampling, patient confidentiality, costs associated with fees/licensing of proprietary measures) can be implemented (e.g., already in operational use, or testing demonstrates that it is ready to put into operational use). For eMeasures, a feasibility assessment addresses the data elements and measure logic and demonstrates the eMeasure can be implemented or feasibility concerns can be adequately addressed.

3c.1. Required for maintenance of endorsement. Describe difficulties (as a result of testing and/or operational use of the measure) regarding data collection, availability of data, missing data, timing and frequency of data collection, sampling, patient confidentiality, time and cost of data collection, other feasibility/implementation issues.

If instrument-based, consider implications for both individuals providing data (patients, service recipients, respondents) and those whose performance is being measured.

This measure uses administrative claims data and, as such, imposes no data collection burden to measure entities.

3c.2. Describe any fees, licensing, or other requirements to use any aspect of the measure as specified (e.g., value/code set, risk model, programming code, algorithm).

N/A; there are no fees, licensing, or other requirements to use any aspect of this measure as specified.

4. Usability and Use

Extent to which potential audiences (e.g., consumers, purchasers, providers, policy makers) are using or could use performance results for both accountability and performance improvement to achieve the goal of high-quality, efficient healthcare for individuals or populations.

4a. Accountability and Transparency

Performance results are used in at least one accountability application within three years after initial endorsement and are publicly reported within six years after initial endorsement (or the data on performance results are available). If not in use at the time of initial endorsement, then a credible plan for implementation within the specified timeframes is provided.

4.1. Current and Planned Use

NQF-endorsed measures are expected to be used in at least one accountability application within 3 years and publicly reported within 6 years of initial endorsement in addition to performance improvement.

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Specific Plan for Use	Current Use (for current use provide URL)
Not in use	<p>Payment Program</p> <p>Medicare Shared Savings Program https://www.cms.gov/Medicare/Medicare-Fee-for-Service-Payment/sharedsavingsprogram</p>

4a1.1 For each CURRENT use, checked above (update for maintenance of endorsement), provide:

- Name of program and sponsor
- Purpose
- Geographic area and number and percentage of accountable entities and patients included
- Level of measurement and setting

Program Name, Sponsor: Medicare Shared Savings Program (SSP), Centers for Medicare and Medicaid Services (CMS)

Purpose: The Medicare SSP was established by Section 3022 of the Affordable Care Act. The SSP is a key component of the Medicare delivery system reform initiatives included in the Affordable Care Act and is a new approach to the delivery of health care. Through ACOs, the SSP facilitates coordination and cooperation among providers to improve the quality of care for Medicare FFS beneficiaries and lower the growth in Medicare expenditures. Eligible providers, hospitals, and suppliers may participate in the SSP by creating or participating in an ACO.

Level of measurement and setting: Medicare Accountable Care Organizations

Geographic area and number/percentage of accountable entities and patients included: As of January 2020, there are 517 SSP ACOs with over 11 million assigned beneficiaries across the 50 states, Puerto Rico, and Washington DC. An ACO may serve patients across multiple regions. ACOs include networks of individual practices, group practices, hospital/professional partnerships, hospitals employing ACO professionals, federally qualified health centers, rural health clinics, and critical access hospitals. An ACO may report multiple of these characteristics.

4a1.2. If not currently publicly reported OR used in at least one other accountability application (e.g., payment program, certification, licensing) what are the reasons? (e.g., Do policies or actions of the developer/steward or accountable entities restrict access to performance results or impede implementation?)

The measure as originally specified is currently in use. The updated measure is not yet in use; CMS has proposed to include this updated measure in the APM Performance Pathway quality measure set to be reported on by Medicare ACOs (measure name as proposed: "All-Cause Unplanned Admissions for Patients with Multiple Chronic Conditions") (85 FR 50286).

4a1.3. If not currently publicly reported OR used in at least one other accountability application, provide a credible plan for implementation within the expected timeframes -- any accountability application within 3 years and publicly reported within 6 years of initial endorsement. (Credible plan includes the specific program, purpose, intended audience, and timeline for implementing the measure within the specified timeframes. A plan for accountability applications addresses mechanisms for data aggregation and reporting.)

The measure as originally specified is currently in use; the updated measure will replace the original measure in the Medicare Shared Savings Program beginning with Performance Year 2021 if finalized by CMS.

4a2.1.1. Describe how performance results, data, and assistance with interpretation have been provided to those being measured or other users during development or implementation.

How many and which types of measured entities and/or others were included? If only a sample of measured entities were included, describe the full population and how the sample was selected.

N/A; the updated measure is not yet in use.

4a2.1.2. Describe the process(es) involved, including when/how often results were provided, what data were provided, what educational/explanatory efforts were made, etc.

N/A; the updated measure is not yet in use.

For the previous version of the measure, CMS provided the following to ACOs:

1. Performance results in Annual Quality Reports; over Shared Savings Program ACOs receive the results each year. These reports also contain the benchmark performance rates, national mean of all ACO performance rates, prior year performance rate (if applicable), and whether the ACO's performance rate represents a significant improvement from the prior performance year.
2. Detailed specifications on measure calculation and the calculation of benchmarks are on the CMS website (Shared Savings Program: <https://www.cms.gov/Medicare/Medicare-Fee-for-Service-Payment/sharedsavingsprogram/program-guidance-and-specifications.html>; Next Generation ACOs via CMMI Connect: <https://app.innovation.cms.gov/CMMIConnect/s/login/>). Measure Information Forms (MIFs) containing detailed information and codes are published and updated annually. Detailed specifications are updated at least once annually, and calculations of benchmarks are updated every other year.
3. Educational webinars: As needed, the production contractor hosts a webinar in the late spring/early summer that covers the quality measures and how they are calculated and a webinar in the late summer/early fall to review the measure results. During these webinars, ACOs may ask the production contractor and CMS questions about the measures. ACOs may also submit questions to either the Model/Program-specific mailbox or the Quality Payment Program Service Center for a written response.

ACOs are not required to collect/submit data for this measure (beyond their usual billing practices); therefore, it is not necessary for CMS to provide an explanation of the processes of collecting and submitting data.

4a2.2.1. Summarize the feedback on measure performance and implementation from the measured entities and others described in 4d.1.

Describe how feedback was obtained.

N/A; the updated measure is not yet in use.

For the previously used measure, ACOs had the opportunity to ask the production contractor and CMS questions about the measure during webinars or submit questions to either the Model/Program-specific mailbox or the Quality Payment Program Service Center. The production contractor and CMS provided responses in writing.

4a2.2.2. Summarize the feedback obtained from those being measured.

N/A; the updated measure is not yet in use.

For the previously used measure, CMS has received some feedback on measure performance or implementation of the previously implemented measure from any recipients of the measures' performance rates. In 2019 and 2020 during rulemaking, commenters have suggested CMS provide more actionable information to ACOs as part of their quality reports, such as the number of patients included in the numerator/denominator and the patients included. Questions related to interpretation of the measure performance rate have been answered primarily using resources provided to ACOs as described above, and CMS' Technical Assistance to ACOs including question-and-answer support.

4a2.2.3. Summarize the feedback obtained from other users

For the updated measure, CMS had added it to the 2019 Measure under Consideration list for review by the Measure Applications Partnership (MAP) Clinician Workgroup. The MAP final recommendation for this measure was "conditional support for rulemaking," with the condition of submission to the NQF for endorsement review. This updated measure, as documented in this application, is being submitted to the NQF for endorsement review.

For the previously used measure, during CMS Learning Collaborative Webinars, successful ACOs have presented to peers on the use of admission measures as part of internal quality improvement initiatives. ACOs have expressed that tracking to admission rates is a useful monitoring approach

4a2.3. Describe how the feedback described in 4a2.2.1 has been considered when developing or revising the measure specifications or implementation, including whether the measure was modified and why or why not.

N/A; the updated measure is not yet in use.

Improvement

Progress toward achieving the goal of high-quality, efficient healthcare for individuals or populations is demonstrated. If not in use for performance improvement at the time of initial endorsement, then a credible rationale describes how the performance results could be used to further the goal of high-quality, efficient healthcare for individuals or populations.

4b1. Refer to data provided in 1b but do not repeat here. Discuss any progress on improvement (trends in performance results, number and percentage of people receiving high-quality healthcare; Geographic area and number and percentage of accountable entities and patients included.)

If no improvement was demonstrated, what are the reasons? If not in use for performance improvement at the time of initial endorsement, provide a credible rationale that describes how the performance results could be used to further the goal of high-quality, efficient healthcare for individuals or populations.

Note that the updated measure, as specified, is currently not in use therefore we cannot demonstrate if there has been improvement with the updated measure.

4b2. Unintended Consequences

The benefits of the performance measure in facilitating progress toward achieving high-quality, efficient healthcare for individuals or populations outweigh evidence of unintended negative consequences to individuals or populations (if such evidence exists).

4b2.1. Please explain any unexpected findings (positive or negative) during implementation of this measure including unintended impacts on patients.

We did not identify any unexpected findings during the implementation of the previously used measure. However, we are committed to monitoring the updated measure's use and assessing potential unintended consequences over time, such as the inappropriate shifting of care, increased patient morbidity and mortality, and other negative unintended consequences for patients.

4b2.2. Please explain any unexpected benefits from implementation of this measure.

N/A

5. Comparison to Related or Competing Measures

If a measure meets the above criteria and there are endorsed or new related measures (either the same measure focus or the same target population) or competing measures (both the same measure focus and the same target population), the measures are compared to address harmonization and/or selection of the best measure.

5. Relation to Other NQF-endorsed Measures

Are there related measures (conceptually, either same measure focus or target population) or competing measures (conceptually both the same measure focus and same target population)? If yes, list the NQF # and title of all related and/or competing measures.

Yes

5.1a. List of related or competing measures (selected from NQF-endorsed measures)

3597 : Clinician-Group Risk-Standardized Acute Hospital Admission Rate for Patients with Multiple Chronic Conditions under the Merit-based Incentive Payment System

5.1b. If related or competing measures are not NQF endorsed please indicate measure title and steward.

5a. Harmonization of Related Measures

The measure specifications are harmonized with related measures;

OR

The differences in specifications are justified

5a.1. If this measure conceptually addresses EITHER the same measure focus OR the same target population as NQF-endorsed measure(s):

Are the measure specifications harmonized to the extent possible?

Yes

5a.2. If the measure specifications are not completely harmonized, identify the differences, rationale, and impact on interpretability and data collection burden.

Clinician-Group Risk-Standardized Acute Hospital Admission Rate for Patients with Multiple Chronic Conditions under the Merit-based Incentive Payment System (MIPS MCC measure): The measure specifications are harmonized to the fullest extent possible. The only differences are for the CMS programs and measurement levels for which they are intended: for example, the MIPS measure is attributed and scored for clinician groups under MIPS, and the ACO MCC admission measure is attributed and scored for Medicare ACOs. Hospitalizations for Ambulatory Care Sensitive Conditions for Dual-Eligible Beneficiaries Unlike this updated measure which is specified for evaluating ACOs, the ACSC DE measure is a state-level measure. The cohorts, outcomes, and the risk-adjustment models differ accounting for differences in their target populations and measurement settings. -Cohort: Unlike the ACO MCC measure which targets patients with two or more of eight chronic conditions age >65 years, the ACSC DE measure targets dual-eligible adults age >18 years within each state; it does not focus on patients with certain chronic conditions. -Outcome: Unlike the ACO MCC measure which targets unplanned admissions, the ACSC DE measure is a composite of ACSC admissions. The ACSC DE measure outcome is ACSC admissions per 1,000 beneficiaries for ACSC by chronic, acute, and both conditions -Risk adjustment: Like the ACO MCC measure, the ACSC DE measure is risk-adjusted. Both measures adjust for patient demographics and comorbidities defined by Condition Categories (CCs). Specifically, the ACSC measure adjusts for age and sex, comorbidities, condition interactions, disability-by-condition interactions, and the total number of conditions.

5b. Competing Measures

The measure is superior to competing measures (e.g., is a more valid or efficient way to measure);

OR

Multiple measures are justified.

5b.1. If this measure conceptually addresses both the same measure focus and the same target population as NQF-endorsed measure(s):

Describe why this measure is superior to competing measures (e.g., a more valid or efficient way to measure quality); OR provide a rationale for the additive value of endorsing an additional measure. (Provide analyses when possible.)

N/A

Appendix

A.1 Supplemental materials may be provided in an appendix. All supplemental materials (such as data collection instrument or methodology reports) should be organized in one file with a table of contents or bookmarks. If material pertains to a specific submission form number, that should be indicated. Requested information should be provided in the submission form and required attachments. There is no guarantee that supplemental materials will be reviewed.

No appendix Attachment:

Contact Information

Co.1 Measure Steward (Intellectual Property Owner): Centers for Medicare & Medicaid Services

Co.2 Point of Contact: Helen, Dollar-Maples, Helen.Dollar-Maples@cms.hhs.gov, 410-786-7214-

Co.3 Measure Developer if different from Measure Steward: Yale New Haven Health Services Corporation – Center for Outcomes Research and Evaluation (CORE)

Co.4 Point of Contact: Doris, Peter, Dor.peter@yale.edu, 203-764-5700-

Additional Information

Ad.1 Workgroup/Expert Panel involved in measure development

Provide a list of sponsoring organizations and workgroup/panel members' names and organizations. Describe the members' role in measure development.

The CORE measure reevaluation team met regularly and is comprised of experts in epidemiology, internal medicine, quality outcomes measurement, and measure development.

CORE Measure Reevaluation Team:

Kasia J Lipska, MD MHS – Project Lead

Faseeha K. Altaf, MPH – Project Manager
Craig S. Parzynski, MS – Supervising Analyst
Andrea G. Barbo, MS – Lead Analyst
Mariana Henry, MPH – Research Associate
Alex Ferrante, BS – Research Associate
Zhenqiu Lin, PhD – Analytics Director
Megan LoDolce, MA – Contract Manager
Elizabeth E. Drye, MD, SM* – Project Director
*Yale School of Medicine

For original measure development, CORE convened a TEP of clinicians, patients, purchasers, and experts in quality improvement to provide input on key methodological decisions.

Technical Expert Panel (TEP) Members included:

Lawrence M. Becker, BS- Xerox Corporation (Director, Strategic Partnerships, Alliances and Analytics)
Alex Blum, MD, MPH- Evergreen Health Cooperative (Chief Medical Officer)
Sanjay Doddamani, MD- Geisinger Health System (System-wide Chief of Advanced Cardiac Disease Heart Failure)
Kevin Fiscella, MD, MPH- University of Rochester Medical Center (Professor of Family Medicine)
Elbert Huang, MD, MPH- University of Chicago (Associate Professor of Medicine, Director of the Center for Translational and Policy Research of Chronic Diseases, and Associate Director of the Chicago Center for Diabetes Translation Research)
Bruce Leff, MD- Johns Hopkins University School of Medicine (Professor of Medicine, Division of Geriatric Medicine); The Johns Hopkins University Bloomberg School of Public Health (Faculty, Health Services Research Development Center and Lipitz Center for Integrated Health Care)
Andy Miller, MD, MPH- Healthcare Quality Strategies, Inc. (Medical Director); Colorado Foundation for Medical Care (CMO, Integrating Care for Populations & Communities National Coordinating Center)
Ami Parekh, MD, JD- University of California, San Francisco (Medical Director for Health System Innovation)
Christine Ritchie, MD- University of California, San Francisco (Professor of Medicine, Division of Geriatrics)
Two patient representatives

For the MCC measure, on which the updated ACO specifications are derived, CORE convened a TEP comprised of 20 members, including clinicians, patients, and experts in quality improvement to provide input on key methodological decisions.

TEP members:

1. Mary Barton, MD, MPP; Vice President, Performance Measurement; National Committee for Quality Assurance; Washington, D.C.
2. Larry Becker, BS; Director, Strategic Partnerships, Alliances and Analytics (Retired); Xerox; Rochester, NY
3. Jacob Berman, MD, MPH; Medical Director; General Internal Medicine Center, University of Washington; Seattle, WA
4. Jane Brock, MD, MSPH; Clinical Director; Quality Innovation Network – Quality Improvement Organization National Coordinating Center, Telligen; Greenwood Village, CO
5. Brenda Cook, MSN, RN, NEA-BC; Nursing Director; Southcentral Foundation; Anchorage, AK
6. Namirah Jamshed, MBBS; Associate Professor, Division of Geriatric Medicine; University of Texas Southwestern Medical Center; Dallas, TX
7. Lorie Joseph; Patient
8. David Kraus, MD; Advanced Heart Failure and Cardiac Transplant Specialist; Stern Cardiovascular Center; Memphis, TN
9. Rozalina McCoy, MD, MS; Assistant Professor of Medicine; Mayo Clinic; Rochester, MN
10. J. Michael McWilliams, MD, PHD; Associate Professor, Health Care Policy; Harvard Medical School; Cambridge, MA
11. Amy Mullins, MD, CPE, FAAFP; Medical Director, Quality Improvement; American Academy of Family Physicians; Leawood, KS
12. Diane Padden, PhD, CRNP, FAANP; Vice President, Professional Practice & Partnerships; American Association of Nurse Practitioners; Austin, TX
13. Robert Roca, MD, MPH, MBA; Vice President/Medical Director; Sheppard Pratt Health System/American Psychiatric Association;

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<p>Baltimore, MD</p> <p>14. Jason Sico, MD, MHS, FAHA, FACP; Assistant Professor of Neurology and Internal Medicine; Yale School of Medicine; New Haven, CT</p> <p>15. Mary Smith, DNP, FNP-BC, ONP-C, RNFA; Nurse Practitioner; Starkville Orthopedic Clinic; Starkville, MS</p> <p>16. Barbara Spivak, MD; President; Mount Auburn Cambridge Independent Practice Association; Brighton, MA</p> <p>17. Jennefer Watson, Patient Caregiver; Jacksonville, FL</p> <p>Daniel Weiner, MD, MS; Associate Professor of Medicine; Tufts University School of Medicine; Boston, MA</p> <p>18. Roger Wells, PA-C; Family Practice and Emergency Medicine Physician Assistant; Howard County Medical Center; St. Paul, NE</p> <p>19. Stephanie Wolf-Rosenblum, MD, MMM, FACP, FCCP; Physician Administrator and Vice President of Development and External Affairs; Southern New Hampshire Health System; Nashua, NH</p> <p>Patient; Participation was confidential</p>
<p>Measure Developer/Steward Updates and Ongoing Maintenance</p> <p>Ad.2 Year the measure was first released:</p> <p>Ad.3 Month and Year of most recent revision:</p> <p>Ad.4 What is your frequency for review/update of this measure? Not applicable.</p> <p>Ad.5 When is the next scheduled review/update for this measure?</p>
<p>Ad.6 Copyright statement: Not applicable.</p> <p>Ad.7 Disclaimers: Not applicable.</p>
<p>Ad.8 Additional Information/Comments: Not applicable.</p>