2018 MIPS Quality Performance Category Measure Information for the 30-Day All-Cause Hospital Readmission Measure

A. Measure Name

30-day All-Cause Hospital Readmission Measure

B. Measure Description

The 30-day All-Cause Hospital Readmission Measure is a risk-standardized readmission rate for beneficiaries age 65 or older who were hospitalized and experienced an unplanned readmission for any cause to a short-stay acute-care hospital within 30 days of discharge. The measure includes solo practitioners and groups, as identified by their Medicare Taxpayer Identification Number (TIN) as defined by the current MIPS attribution for quality measures.

This TIN-level, risk-standardized, all-cause unplanned readmission measure is adapted from a hospital-level quality measure (Horwitz et al. 2011) developed for the Centers for Medicare & Medicaid Services (CMS) by the Yale New Haven Health Services Corporation - Center for Outcomes Research & Evaluation (YNHHSC/CORE). This version of the measure is based on the measure updates developed for CMS by YNHHSC/CORE in 2017 (Simoes et al. 2017) with additional updates for new International Classification of Diseases (ICD)-10 Clinical Modification (CM) codes.

C. Rationale

Some readmissions are unavoidable, but they may also result from poor quality of care, inadequate coordination of care, or lack of effective discharge planning and transitional care. CMS is applying this measure to the Merit-based Incentive Payment System (MIPS) because reducing avoidable readmissions is a key component in the effort to promote more efficient, high-quality care.

D. Measure Outcome (Numerator)

The outcome for this measure is any unplanned readmission to a non-federal, short-stay, acute-care or critical access hospital within 30 days of discharge from an index admission. The identification of planned readmissions is discussed in section H. Readmissions during the 30-day period that follow a planned readmission are not counted in the outcome. In the case of multiple readmissions during the 30-day period, the measure counts only one outcome. If a patient is readmitted to the same hospital on the same calendar day of discharge for the same condition as the index admission, the measure considers the patient to have had one single continuous admission (that is, one index admission). However, if the condition is different from the index admission, this is considered a readmission in the measure.

E. Population Measured (Denominator)

Eligible (index) admissions include acute care hospitalizations for Medicare Fee-for-Service (FFS) beneficiaries age 65 or older at non-federal, short-stay, acute-care or critical access hospitals that were discharged during the performance period and are not excluded for the reasons listed in the next section. Admissions for all principal diagnoses are included unless identified as having a reason for exclusion. A hospitalization that counts as a readmission for a prior stay also may count as a new index admission if it meets the criteria for an index admission.

For the purposes of measure calculation (described in section H), index admissions are assigned to one of five specialty cohorts—surgery/gynecology, general medicine, cardiorespiratory, cardiovascular, and neurology—based on diagnoses and procedure codes on the claim mapped to Agency for Healthcare Research and Quality (AHRQ) Clinical Classifications Software (CCS); section I provides a link to methodology reports that contain the detailed CCS categories for each cohort.

F. Exclusions

Hospitalizations are excluded from the denominator if the beneficiary:

- died during the admission
- was not continuously enrolled in Medicare Part A FFS for at least 30 days following discharge from the index admission
- lacked complete Medicare Part A FFS enrollment history for the 12 months prior to the index admission
- was discharged against medical advice
- was transferred from the admission to another acute care hospital
- was hospitalized in a prospective payment system-exempt cancer hospital
- was hospitalized for medical treatment of cancer
- was hospitalized for a primary psychiatric disease

G. Data Collection Approach and Measure Collection

This measure is calculated from Medicare FFS claims (Parts A and B) and Medicare beneficiary enrollment data; no additional data submission is required. The measure uses one year of inpatient claims to identify eligible admissions and readmissions, as well as up to one year prior of inpatient data to collect diagnoses for risk adjustment. The measure uses Part A and B paid claims from the performance period to attribute beneficiaries to TINs as described in the next section.

H. Methodological Information and Measure Construction

Attribution. For the 30-day All-Cause Hospital Readmission measure, beneficiaries are attributed to a single TIN in a two-step process that takes into account the level of primary care services received (as measured by Medicare-allowed charges during the performance period) and the provider specialties that performed these services. Only beneficiaries who received a primary care service during the performance period are considered in attribution. The MIPS program will use a modified version of the Value Modifier attribution methodology. For information regarding MIPS attribution, please refer to page 77116 of the Final Rule available at the following URL: https://www.federalregister.gov/documents/2016/11/04/2016-25240/medicare-program-merit-based-incentive-payment-system-mips-and-alternative-payment-model-apm#h-214.

The following two steps are used to attribute beneficiaries to a TIN for the 30-day All-Cause Hospital Readmission measure:

a. A beneficiary is attributed to a TIN in the first step if the beneficiary received more primary care services (as defined in Table 1) from physicians, which includes doctors of

medicine, doctors of osteopathy (including osteopathic practitioners), doctors of dental surgery, doctors of dental medicine, doctors of podiatric medicine, doctors of optometry, and chiropractors, nurse practitioners (NPs), physician assistants (PAs), clinical nurse specialists (CNSs), and certified registered nurse anesthetists (CRNA) in that TIN than in any other TIN.

b. If a beneficiary did not receive a primary care service from any physician, NP, PA, CNS or CRNA during the performance period, the beneficiary is attributed to a TIN in the second step if the beneficiary received more primary care services from specialist physicians within the TIN than in any other TIN.

Planned readmissions. This measure does not count hospitalizations that are considered planned in the outcome. Planned readmissions are identified based on the following three principles: (1) some types of care are always considered planned (transplant surgery, maintenance chemotherapy, rehabilitation); (2) otherwise, a planned readmission is defined as a non-acute readmission for a scheduled procedure; and (3) admissions for acute illness or for complications of care are never planned.

Risk adjustment and measure construction. The measure risk adjusts for beneficiary-level age and clinical risk factors of the beneficiaries attributed to the TIN that can affect hospital readmissions, regardless of the care provided. The measure also includes a TIN-level effect that accounts for the underlying risk of readmission for that TIN. The measure reports a single composite risk-standardized rate derived from the volume-weighted results of hierarchical logistic regression models for five specialty cohorts: surgery/gynecology, general medicine, cardiorespiratory, cardiovascular, and neurology. For more detail on risk adjustment and measure construction, please see the technical reports referenced in section J below.

Each specialty cohort model uses a fixed, common set of risk-adjustment variables. Diagnoses recorded in hospital claims during the year prior to hospitalization and secondary diagnoses from the index admission (that do not represent complications) are used in assigning risk-adjustment variables for each admission, grouped by selected condition categories. Diagnoses that are present on the index hospitalization claim but not in the prior year and which are considered complications of care are not included in the risk adjustment.

A Hierarchical Generalized Logistic Model (HGLM) is used to calculate a "standardized readmission ratio" (SRR) for each cohort. At the beneficiary level, HGLM models the log-odds of hospital readmission within 30 days of discharge using age, selected clinical covariates, and a TIN-specific intercept. At the TIN level, it models the TIN-specific intercepts as arising from a normal distribution. The TIN-level intercept represents the underlying risk of a readmission for a TIN's beneficiaries, after accounting for beneficiary risk. The TIN-specific intercepts are given a distribution to account for the clustering (non-independence) of beneficiaries within the same TIN.

For each specialty cohort, the numerator of the SRR ("predicted") is the number of 30-day readmissions for beneficiaries within the specialty cohort predicted on the basis of the TIN's performance (accounting for its TIN-specific intercept) with its observed case mix; the denominator ("expected") is the number of readmissions expected for beneficiaries within the specialty cohort on the basis of the nation's performance with that TIN's case mix. If a TIN has an SRR > 1, this indicates higher than expected readmissions given the patient mix of its attributed beneficiaries; an SRR < 1 indicates lower than expected readmissions.

These SRRs are then pooled for each TIN to create a composite SRR. The composite SRR is the geometric mean of the specialty cohort SRRs, weighted by the number of admissions in the specialty cohort; the pooled SRR is then multiplied by the national observed readmission rate to produce the risk-standardized rate.

I. For Further Information

To access additional measure specifications and the reports in section J, please visit https://www.qualitynet.org and click on the "Hospitals-Inpatient" tab, scroll down to the "Claims-Based Measures" option, click on "Readmission Measures" and then select "Measure Methodology."

J. References

Horwitz, L., Partovian C., Lin Z., et al. *Hospital-Wide All-Cause Risk-Standardized Readmission Measure: Measure Methodology Report*. Prepared for the Centers for Medicare and Medicaid Services. New Haven, CT: Yale New Haven Health Services Corporation/Center for Outcomes Research & Evaluation, 2011.

Simoes, J., Grady J., DeBuhr, J., et al. 2017 All-Cause Hospital-Wide Measure Updates and Specification Report: Hospital-Level 30-Day Risk-Standardized Readmission Measure–Version 6.0. Prepared for the Centers for Medicare and Medicaid Services. New Haven, CT: Yale New Haven Health Services Corporation/Center for Outcomes Research & Evaluation, 2017.

K. Tables

Table 1. Healthcare Common Procedure Coding System (HCPCS) primary care service codes

HCPCS Codes	Brief Description
99201–99205	New patient, office, or other outpatient visit
99211–99215	Established patient, office, or other outpatient visit
99304–99306	New patient, nursing facility care
99307–99310	Established patient, nursing facility care
99315–99316	Established patient, discharge day management service
99318	New or established patient, other nursing facility service
99324–99328	New patient, domiciliary or rest home visit
99334–99337	Established patient, domiciliary or rest home visit
99339–99340	Established patient, physician supervision of patient (patient not present) in home, domiciliary, or rest home
99341–99345	New patient, home visit
99347–99350	Established patient, home visit
G0402	Initial Medicare visit
G0438	Annual wellness visit, initial
G0439	Annual wellness visit, subsequent
G0463	Hospital outpatient clinic visit (Electing Teaching Amendment hospitals only)

Labels are approximate. For more details, see the American Medical Association's Current Procedural Terminology ® and the CMS website (http://www.cms.gov/Medicare/Coding/HCPCSReleaseCodeSets/HCPCS_Quarterly_Update.html).