

Measure Information for the Hospital-Wide, 30-Day, All-Cause Unplanned Readmission (HWR) Rate for the Merit-based Incentive Payment System (MIPS) Groups

A. Measure Name

Hospital-Wide, 30-Day, All-Cause Unplanned Readmission (HWR) Rate for the Merit-based Incentive Payment System (MIPS) Groups.

B. Measure Description

The 30-day Hospital-Wide, All-Cause Unplanned Readmission (HWR) Rate for the Merit-based Incentive Payment System (MIPS) Groups 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 attributes readmissions to up to three MIPS participating clinician groups, as identified by their Medicare Taxpayer Identification Number (TIN) and assesses each group's readmission rate.

This clinician group-level, risk-standardized, all-cause unplanned readmission measure is a re-specified version of the hospital-level measure, "Hospital-wide All-cause Unplanned Readmission Measure" (NQF 1789), which is currently reported within the Inpatient Quality Reporting (IQR) program. This measure replaced the All-Cause Readmission (ACR) measure previously in use in QPP.

C. Rationale

Some readmissions are unavoidable, but others may result from poor quality of care, inadequate coordination of care, or lack of effective discharge planning and transitional care. The Centers for Medicare & Medicaid Services (CMS) is applying this measure to MIPS and continuing to attribute outcomes to clinician groups, 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 are considered planned or follow a planned readmission are not counted in the outcome. In the case of multiple readmissions during the 30-day period, only one of the readmissions would be counted for the 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. Beneficiaries must have been enrolled in Medicare FFS Part A for the 12 months prior to the date of admission and 30 days after discharge, discharged alive, and not transferred to another acute care facility. 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, 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 was:

- Discharged against medical advice;
- Hospitalized in a prospective payment system-exempt cancer hospital;
- Hospitalized primarily for medical treatment of cancer;
- Hospitalized primarily for a psychiatric disease;

- Hospitalized for “rehabilitation care or fitting of prostheses and adjustment devices” (CCS 254);
- Was not able to be attributed to a clinician group;
- Not continuously enrolled in Medicare Part A FFS for at least 12 months prior to the index admission and 30 days following discharge from the index admission; or
- With a principal diagnosis code of COVID-19 (ICD-10-CM code U07.1) **or** a secondary diagnosis code of COVID-19 coded as present on admission (POA) on the index admission claim.

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 final action claims from the performance period to attribute beneficiaries to TINs as described in [Section H](#).


H. Methodological Information and Measure Construction

Attribution. The measure attributes readmissions to up to three clinician groups to account for the reality that multiple health care roles can influence readmissions. The following three types of clinician groups are included in the multiple attribution approach.

- Discharge Clinician Group: The group of the clinicians responsible for discharging the patient, determined by identifying a claim for a discharge procedure code which occurred within the last three days of the hospital stay.
- Primary Inpatient Care Provider Group: The group of the clinicians responsible for the patient’s medical care, determined as the clinician who billed the most charges for the patient during the hospitalization.
- Outpatient Primary Care Physician Group: The group of the clinicians responsible for the patient’s care outside of the hospital, determined as the clinician who provides the greatest number of claims for primary care services during the 12 months prior to the hospitalization.

Though an admission may be attributed to up to three distinct clinician groups, two or even all three of the above roles for a given patient may be filled by clinicians assigned to the same clinician group. In such cases, the admission is included only once when measuring the clinician group.

All attributed admissions are used to construct a single score for an eligible clinician group. For example, a clinician group can have admissions attributed to them in multiple



capacities – for instance, clinicians from the same group may be both a Discharge Clinician for some patients and a Primary Inpatient Care Provider for others.

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.

Specialty Cohorts. All admissions are classified into one of five different ‘specialty cohorts’: medicine, neurological, cardiovascular, cardiorespiratory, and surgery/gynecology. Principal discharge diagnosis categories (as defined by AHRQ CCSs) are used to define the specialty cohorts.

Risk adjustment and measure construction. Since the measure can assign each admission to multiple eligible clinician groups, the hierarchical logistic regression methods of the original MIPS ACR measure and the hospital IQR HWR measure could not be adapted to adjust for differences in eligible clinician group case mix and to account for the clustering of patients within a provider. Instead, a two-step approach is used to account for clustering of patients.

Five specialty cohort models adjust for case mix differences among providers by risk adjusting for patients’ comorbid conditions identified in inpatient episodes of care for the 12 months prior to the index admission as well as those present at admission. These models include different risk factors, and do not risk adjust for diagnoses that may have been a complication of care during the index admission. CMS’s complication or comorbidity codes are used as the grouper to define most comorbid risk adjusters and a fixed set of comorbid risk variables are used across the different specialty cohort models. Principal discharge diagnosis categories (as defined by AHRQ CCSs) that were used to define the specialty cohorts are included to adjust for service mix differences.

The five specialty cohort models are used to calculate the ratio of observed to expected numbers of readmissions for each clinician group in each specialty cohort. These standardized readmission ratios (SRRs) are then used to estimate the between-provider variance. This parameter is then used to adjust each SRR, creating a ‘smoothed rate.’ A single summary score is derived from the results of the five specialty cohort models by calculating the volume-weighted log average of the SRRs from each model and multiplying the resulting ratio by the average national observed readmission rate.



I. For Further Information

To access additional measure specifications and the reports in section J, please visit <https://qpp.cms.gov/about/resource-library>. Additional information on the HWR measure is available on www.qualitynet.cms.gov > Hospitals – Inpatient > Measures > Readmission Measures.

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. (Original methodology report)

Herrin J, Altaf F, Suter L, et al. Measure Methodology Report: Hospital-Wide, 30-Day, All-Cause Unplanned Readmission (HWR) Rate for the Merit-Based Incentive Payment System Program (MIPS) Groups. Prepared for the Centers for Medicare and Medicaid Services. New Haven, CT: Yale New Haven Health Services Corporation/Center for Outcomes Research & Evaluation, 2020. (Last updated methodology report)

DeBuhr J, Araas M, Grady J, et al. 2021 All-Cause Hospital-Wide Measure Updates and Specification Report: Hospital-Level 30-Day Risk-Standardized Readmission Measure. Prepared for the Centers for Medicare and Medicaid Services. New Haven, CT: Yale New Haven Health Services Corporation/Center for Outcomes Research & Evaluation, 2021. (Updated annually and available in early Spring)