

Quality Measures Fact Sheet

Hospital 30-Day, All-Cause, Risk-Standardized Mortality Rate (RSMR) Following Pneumonia Hospitalization (NQF #0468)
National Quality Strategy Domain: Promote Effective Prevention & Treatment of Chronic Disease

Quality Measures Set: Alternate

Data Source: Hospital Inpatient Quality Reporting Program

BPCI Advanced and Quality

The Center for Medicare & Medicaid Innovation's (the CMS Innovation Center's) BPCI Advanced Model rewards health care providers for delivering services more efficiently, supports enhanced care coordination, and recognizes high quality care. Hospitals and clinicians should work collaboratively to achieve these goals, which have the potential to improve the BPCI Advanced Beneficiary experience and align to the CMS Quality Strategy goals of promoting effective communication and care coordination, highlighting best practices, and making care safer and more affordable. A goal of the BPCI Advanced Model is to promote seamless, patient-centered care throughout each Clinical Episode, regardless of who is responsible for a specific element of that care.

Background on Mortality Following Pneumonia Hospitalization

Pneumonia is a common reason for hospital admission, with over 20 million pneumonia hospitalizations in the United States between 2001 and 2014, and \$85 billion in total charges for pneumonia hospitalizations in 2014 alone.²⁹ People aged 65 years and older are at an increased risk of death from pneumonia, with about 85 percent of all pneumonia deaths occurring in this age group.³⁰ Pneumonia mortality is a priority area for quality improvement as it is an outcome that is in part attributable to care processes and is important for patients.³¹

²⁹ Hayes, B. H., Haberling, D. L., Bailey, S. R., Kennedy, J. L., Varma, J. K., Fry, A. M., & Vora, N. M. (2018). Burden of pneumonia-associated hospitalizations. *CHEST Journal*, 153(2), 427-437. Retrieved from [https://journal.chestnet.org/article/S0012-3692\(17\)32879-9/fulltext](https://journal.chestnet.org/article/S0012-3692(17)32879-9/fulltext).

³⁰ Trends in pneumonia and influenza morbidity and mortality [PDF file]. (2015). Retrieved from <https://www.lung.org/assets/documents/research/pi-trend-report.pdf>

³¹ Measure information: #0468 hospital 30-day, all-cause, risk-standardized mortality rate (RSMR) following pneumonia hospitalization. (2020). Retrieved from <http://www.qualityforum.org/QPS/468>.

CMS Innovation Center Rationale for Including the RSMR Following Pneumonia Hospitalization Measure in BPCI Advanced

Hospitals and care teams should collaborate to optimize care for Medicare beneficiaries hospitalized for pneumonia and to reduce the risk of serious complications, including death. The CMS Innovation Center selected the Hospital 30-day, All Cause, Risk-Standardized Mortality Rate (RSMR) following Pneumonia Hospitalization measure for BPCI Advanced because it assesses the number of patients who die for any reason within 30 days of the index pneumonia admission. This measurement provides an important hospital-level perspective on care processes and transitions.³² The RSMR Following Pneumonia Hospitalization measure has been used or is currently being used by the following Federal programs: the Hospital Inpatient Quality Reporting (IQR) Program and Value-Based Purchasing (VBP) Programs.

Applicable Clinical Episodes

The Hospital 30-day, All Cause, RSMR following Pneumonia Hospitalization measure is included in the Alternate Quality Measures Set and applies to the following inpatient Clinical Episode³³:

- Simple pneumonia and respiratory infections: Medicare Severity–Diagnosis-Related Groups (MS-DRGs) 177, 178, 179, 193, 194, and 195

Measure Specifications

The Hospital 30-day, All Cause, RSMR following Pneumonia Hospitalization measure selected for BPCI Advanced follows National Quality Forum (NQF) #0468 measure specifications. The measure estimates a risk-stratified hospital-level mortality rate for all Medicare fee-for-service (FFS) beneficiaries, aged 65 and older, hospitalized for pneumonia. This measure considers mortality as death from any cause within 30 days of the index pneumonia admission date. The CMS Innovation Center will calculate Acute Care Hospital (ACH) performance at the hospital level for all Medicare beneficiaries included in the denominator. For Physician Group Practices (PGPs), the CMS Innovation Center will calculate the measure as specified at the hospital level, then weight the measure based on PGP Clinical Episode volume for each ACH where a PGP triggers an episode.

Denominator

The denominator for the Hospital 30-day, All Cause, RSMR following Pneumonia Hospitalization measure includes all Medicare FFS beneficiaries, aged 65 years and older, who are admitted to the hospital with a principal discharge diagnosis of pneumonia (including aspiration pneumonia), or a principal discharge diagnosis of sepsis (not including severe sepsis) with a secondary diagnosis of pneumonia (including aspiration pneumonia) coded as present on admission (POA) and no secondary diagnosis of severe sepsis coded as POA. Beneficiaries must also meet the following inclusion criteria:

- enrolled in Medicare FFS Part A and Part B for the 12 months before the date of index admission
- enrolled in Part A during the index admission
- not transferred from another acute care facility

³² Measure information: #0468 hospital 30-day, all-cause, risk-standardized mortality rate (RSMR) following pneumonia hospitalization. (2020). Retrieved from <http://www.qualityforum.org/QPS/468>.

³³ MS-DRGs are up to date as of Model Year 3 (2020) and will be updated for Model Year 4 as needed.

All MS-DRG triggers apply, but this measure only applies to patients with pneumonia. The exclusions for this measure include patients:

- discharged alive on the day of admission or the following day and whose care team did not transfer them to another acute care facility
- who have inconsistent or unknown vital status or unreliable demographic (e.g., age, gender) data
- enrolled in the Medicare hospice program any time in the 12 months before the index admission, including the first day of the index admission
- discharged against medical advice

For beneficiaries with more than one admission for a given condition in a given year, the CMS Innovation Center will randomly select one index admission for that condition for inclusion.

Numerator

The numerator includes individuals in the previously defined denominator who die for any reason within 30 days of the index pneumonia admission after their health care teams discharged them from the ACH.

Measure Submission

The CMS Innovation Center will calculate this measure using Medicare claims data and does not require any additional action or reporting by Model Participants, outside of claims submission. To better align with the performance years of the BPCI Advanced Model, the Model uses January 1 through December 31 for measure calculation. The date of discharge on the index admission will determine the calendar year in which the claim belongs.

Revisions to the Published Specifications

The BPCI Advanced version of this measure uses two calendar years of data instead of any 24-month period. In Model Year 4, the claims data will be collected from January 1, 2020 to December 31, 2021.

Composite Quality Score

The Hospital 30-Day, All-Cause, Risk-Standardized Mortality Rate (RSMR) Following Pneumonia Hospitalization measure is one component of the BPCI Advanced Composite Quality Score (CQS) calculation. The CMS Innovation Center uses the CQS to adjust a portion of any Positive Total Reconciliation Amount and any Negative Total Reconciliation Amount. The CQS adjustment will not adjust the Positive Total Reconciliation Amount down by more than 10 percent, nor will it adjust the Negative Total Reconciliation Amount up by more than 10 percent. More information is available at the BPCI Advanced website provided below.

Other Resources

Organization/Resource	Website Address
NQF #0468 specifications	http://www.qualityforum.org/QPS/468
BPCI Advanced	https://innovation.cms.gov/initiatives/bpci-advanced