



Inpatient Quality Reporting (IQR) Program

Support Contractor

Medicare Spending Per Beneficiary (MSPB) Measure

Question and Answers

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June 7, 2016

1 p.m. ET

Question 1: Why would a hospital only have 30 MSPB episodes? Is that only 30 patients?

It is possible for some hospitals (e.g., small hospitals or IPPS hospitals in rural areas) to have a low volume of hospital admissions that are eligible to start MSPB episodes. Admissions that are eligible to start an episode do not necessarily equate the number of patients, since a patient can be admitted to the hospital more than once in a given performance period (e.g., January–December 2015).

Note that VBP-eligible hospitals with at least 25 episodes will have their MSPB Measure reported and used for payment purposes under the Hospital VBP Program, while VBP-eligible hospitals with 24 or fewer episodes will not have their MSPB Measure used for payment purposes.

Question 2: How would you recommend we address this measure with the outpatient SNF spending? In our case, SNFs are charging more for spending than the acute side.

A hospital can improve their MSPB Measure by reducing Medicare spending and delivery system fragmentation. Some of the ways to do so would be : to improve coordination with post-acute providers to reduce the likelihood of hospital readmissions; reduce unnecessary inpatient services (e.g., multiple CT scans); reduce unnecessary post-acute services; and shift post-acute care from more expensive services (e.g., SNFs) to less expensive services (e.g., home health) when appropriate.



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Question 3: Can you tell me the date (approximately) when the new HSRs will be available for download on *QualityNet*?

We expect that you will be able to log into your QualityNet account and download your hospital-specific reports by the end of the week of June 6.

Question 4: Why wouldn't the risk-adjustment neutralize differences between DRG payments among hospitals given you not [apply] the short stay transfer adjustment as a separate factor?

At the simplest level, Inpatient Prospective Payment System (IPPS) payments are often described as being determined by Diagnostic-Related Group (DRG) codes. However, there are numerous other factors that go into the calculation of the IPPS payment. As such, a number of factors can cause standardized payment for inpatient stays with the same DRG that do not include payments from other claims to differ. These are: the fiscal year, the DRG-related payment, any outlier payments, new technology payments, hemophilia clotting factor payments, device credits, the short stay transfer adjustment, and the sequester adjustment.

Question 5: Slide # 33 refers to 29 episodes. 29 episodes in what time frame?

The timeframe that is used in both the example and the MSPB Hospital-Specific Reports is based on the performance period of 2015. So, for both the example on Slide #33 and the Hospital-Specific Reports, the 25 episodes occur between January and December 2015.

Question 6: Is this only for IPPS hospitals? Are critical care hospitals excluded?

Index admissions for the MSPB can only originate from beneficiaries discharged from a short-term acute hospital (i.e., a subsection (d) hospital) during the period of performance. Subsection (d) hospitals are hospitals in the 50 States and D.C. other than: psychiatric hospitals, rehabilitation hospitals, hospitals whose inpatients are: predominantly under 18 years old, hospitals whose average inpatient length of stay exceeds 25 days, and hospitals involved extensively in treatment for or research on cancer.



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Question 7: Our organization is located in a metropolitan area, thus the cost of providing care is higher. Is that taken into consideration in calculating the MSPB to make a fair comparison?

Payment standardization is the process of adjusting the allowed charge for a Medicare service to facilitate comparisons of resource use across geographic areas. As a result, standardization is not calculated by geographic location. For example, the methodology eliminates differences that result from regional variation in hospital wage indexes and geographic practice cost indexes. For an overview of price standardization, also known as payment standardization, please see the Basics of Payment Standardization document available at [this QualityNet webpage](#). For a detailed description of the methodology applied to each setting, please see the CMS Price Standardization Methodology document that is also available on QualityNet.

Question 8: Are all the costs (related and unrelated to the index admission) during the 30-day period included in the total cost or only those costs related to the index admission?

An MSPB episode includes all spending from all Medicare Part A and B claims for a beneficiary from 3 days prior to an inpatient hospital admission (also known as the "index admission" for the episode) through 30 days post-hospital discharge, regardless of whether the costs are related to the index admission.

Question 9: Follow-up question to Slide 19: What about the "CCs" referred to on the slide - location if ICD-10 code mapping to CCs?

The HCC V22 model that we used can be found on the CMS.gov website at: <https://www.cms.gov/Medicare/Health-Plans/MedicareAdvtgSpecRateStats/Risk-Adjustors.html>. A description of the mapping from ICD-10 codes to CCs can be found in the download section of that site.



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Question 10: For an "episode," how long prior to and for how long after the hospitalization are covered? Are we talking days or weeks, or just something that is immediately prior to the hospitalization?

An MSPB episode includes all claims whose start date falls between 3 days prior to an IPPS hospital admission (index admission) through 30 days post-hospital discharge.

Question 11: Where does the expected spending on Slide #44 come from? How is that calculated?

The MSPB Measure is risk-adjusted for age and severity of illness to account for case-mix variation among hospitals. Severity of illness is measured using 70 hierarchical condition category (HCC) indicators derived from a beneficiary's claims during the period 90 days prior to the start of the MSPB episode, HCC interactions, and the MS-DRG of the index hospitalization. These variables are regressed against price-standardized episode cost. The predicted values from this regression are used to measure expected spending for each episode. In other words, expected episode spending is a conditional expected value given the values of the risk adjustment variables.

The expected spending that was discussed on Slide #44 is calculated after risk adjustment is applied. So, risk adjustment, the measure, and the expected spending are risk adjusted for age and severity of illness. This risk adjustment accounts for the case variation among hospitals. Specifically, the severity of illness is measured using the hierarchical condition categories in the HCC version 22 model. The HCCs for each episode are calculated using the beneficiary's claim information during the 90-day period before the start of an MSPB episode.

The model also accounts for the HCC interaction variables and the MS-DRG of the index hospitalizations. These variables are regressed against the price-standardized episode cost and then the predicted values or expected values from this regression are used to calculate what we used to see as expected spending in Slide #44.

Question 12: What are the risk factors in the linear regression for payment risk adjustments? How does the MSPB measure differ from the Payment Measures (AMI, HF, etc.) in the IQR program?

The MSPB Measure is risk-adjusted for age and severity of illness to account for case-mix variation among hospitals. Severity of illness is measured using 70 hierarchical condition category (HCC) indicators derived from a beneficiary's claims during the period 90 days prior to the start of the MSPB episode, as well as the MS-DRG of the



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index hospitalization. These variables are regressed against price-standardized episode cost. The predicted values from this regression are used to measure expected spending for each episode. In other words, expected episode spending is essentially a conditional expected value given the values of the risk adjustment variables. For more details on risk adjustment and a complete list of risk-adjustment variables used, please see the MSPB Measure Information Form at [this QualityNet webpage](#).

Question 13: Is the risk calculated for the patient each time they are admitted or is their risk only calculated once?

The risk adjustment is calculated at the episode level. As such, if the same beneficiary has multiple episodes, their risk factors are re-calculated for each index admission.

Question 14: Is the MSPB measure geographically adjusted?

Yes, it is. Payment standardization is the process of adjusting the allowed charge for a Medicare service to facility comparisons across geographic areas. As a result, standardization is not calculated by geographic location, so the methodology eliminates differences that result from regional variations and hospital weighted index or geographic practice cost indexes. For more information, review [this QualityNet webpage](#) which contains both detailed methods and a basic description of payment standardization.

Question 15: Doesn't it end after all services are completed which started in the last 30 days? For example, Home Health for longer than 30 days?

Payments made by Medicare and the beneficiary (i.e., allowed charges) are counted in the MSPB episode as long as the start of the claim falls within the episode window of 3 days prior to the index admission through 30-days post-hospital discharge. The MSPB Measure calculation does not pro-rate the cost of care that extends beyond the 30-days post-hospital discharge.

Thus, if a patient is admitted to the hospital, triggers an MSPB episode, and then receives Home Health care that is billed within the 30-days after discharge, the index hospital is responsible for the full cost of the Home Health claim. The measure calculation does not pro-rate the cost of Home Health care (or any post-acute care). However, the episode end date does not change from 30-days after discharge, even if the episode includes costs from claims that continue after the episode end date.

Question 16: Are all the costs related and unrelated to the index admission during the 30-day



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period included in the total cost, or only those cost related to the index admission?

All costs billed during the episode period, related or unrelated to the index admission, are included in the episode.

Question 17: Since hospitals generally get the same payment amount for patients within a particular DRG, what drives the differences in inpatient Medicare spending across hospitals (i.e., Medicare payments specific to the inpatient portion of the index visit)? The only factors we could think of are outlier payments, LOS for patients in transfer DRGs with a post-acute stay, and risk-adjustment. Is there something else that might impact spending or this portion of the episode?

The IP based payment is determined by the DRG of that stay. There are, however, other factors that go into the calculation of the IPPS payment. Factors could include: fiscal year as a DRG-related payment; an outlier payment; length of stay; new technology payments, hemophilia clotting factor payment; device credits short stage transfer adjustment; and sequester adjustments. So there are a handful of other factors that are used to calculate the IPPS payment that could make a difference between hospitals.

Question 18: How will the MSPB measure differ from the 30-day standardized Payment Measures in IQR program? Are these two measures from VBP and IQR using a similar methodology and will we be able to break down the MSPB measure to service line level or condition level using the data file?

We recommend that users look at the QualityNet webpage specific to those payment measures where they will find supporting documentation, as well as a listing of all the risk factors that are using their model.

Question 19: Where can I find out more information on the relationship between the Beneficiary Risk Score file (with the beneficiary 90-day claim history) and Step 3: Calculate Expected Episode Spending? You said the Expected spend is based on the MS-DRG of the index stay, yet you also said the Beneficiary Risk Score file is used in the regression modeling.

The MSPB Measure is risk-adjusted for age and severity of illness to account for case-mix variation among hospitals. Severity of illness is measured using 70 hierarchical condition category (HCC) indicators derived from a beneficiary's claims during the period 90 days prior to the start of the MSPB episode, as well as the MS-DRG of the index hospitalization. These variables are regressed against price-standardized episode cost. The predicted values from this regression are used to measure expected spending for each episode. In other words, expected episode spending is essentially a conditional



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expected value given the values of the risk adjustment variables. For more details on risk adjustment and a complete list of risk-adjustment variables used, please see the MSPB Measure Information Form at [this QualityNet webpage](#).

The Beneficiary Risk Score file identifies beneficiaries and their health status based on the beneficiary's claims history in the 90 days prior to the start of an episode (i.e., 93 days prior to the index admission). It includes the coefficients of the risk adjusters and the predicted payment amount for each episode.

Question 20: Does CMS release a certification number directory that hospitals could merge to the CCNs and NPIs provided in the Episode File?

Hospital CCNs are available online on [this data.medicare.gov webpage](#). An NPI crosswalk and other information are available for download from [this CMS webpage](#).

Question 21: Why do the AMI, HF, and PN episode-based payment measures exclude unrelated charges, while the MSPB methodology captures all Part A and B claims, regardless of clinical relatedness?

An MSPB episode includes all claims whose discharge date falls between 3 days prior to an Inpatient Prospective Payment System (IPPS) hospital admission (index admission) through 30-days post-hospital discharge. Including these claims emphasizes the importance of care transitions and care coordination before, during, and after an inpatient stay. CMS believes that inclusion of Medicare payments made outside the timeframe of the hospital inpatient stay will reinforce the need to reduce the provision of unnecessary services to Medicare beneficiaries and to reduce the occurrence of adverse outcomes, including readmissions.

Question 22: The Episode File consolidates spending by claim-type. The start and end date range covers the first through the last claim of a given category, though services may not be continuous. Given gaps in the dataset, how can a hospital segment spending and utilization by claim-type (e.g., LTACH) or phase of care (e.g., post-discharge period)? How can it attribute spending or utilization to a particular provider if the episode is associated with more than one provider within a given claim type?

The episode file does not provide more detailed spending by provider within a given claim type. We recommend using the episode file to identify the top billing providers in each setting using the columns that end in “_PROVIDER_[1-5].” The providers are listed in order of highest spending (e.g., ‘1’ being the highest, ‘2’ the second highest,



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etc.).

Question 23: Why are socio-economic variables excluded from the risk-adjustment model?

The MSPB Measure risk adjustment model does not currently include any socio-economic variables. The National Quality Forum (NQF) is currently undertaking a two year trial period in which new measures and measures undergoing maintenance review will be assessed to determine if risk-adjusting for sociodemographic factors is appropriate. For two years, NQF will conduct a trial of temporarily allowing inclusion of sociodemographic factors in the risk-adjustment approach for some performance measures. At the conclusion of the trial, NQF will issue recommendations on future permanent inclusion of sociodemographic factors. CMS will consider recommendations from NQF and other organizations in future versions of the MSPB Measure risk adjustment model.

Question 24: A key objective of the MSPB measure is to promote efficient post-acute care, but the Conditions of Participation prohibits hospitals from interfering with the post-acute selection process. For patients that require skilled nursing facility (SNF) admission, how can hospitals impact post-acute spending without the ability to guide patients to high-value facilities?

Improved care at the hospital can reduce the intensity of the following post-acute care even if a hospital is unable to affect the patient's decision of post-acute care facilities. For example, better care during the hospital stay can make it less likely that a given beneficiary will need a longer and more costly SNF stay. In addition to this, hospitals can improve their communication and coordination with post-acute care providers to reduce the likelihood of hospital readmissions, duplication of services, or unnecessary testing and post-acute services. Coordination of care could also shift post-acute care from more expensive services (e.g., SNFs) to less expensive services (e.g., home health) when appropriate.

Question 25: Risk-adjustment is applied at the episode-level only. Would it possible for CMS to calculate a predicted payment amount by claim-type to enable hospitals to assess underlying drivers of excess spending? It would be helpful to include this field in the Episode File in addition to the standardized and actual payment amounts.

As the expected cost for each episode is calculated at the episode level rather than the claim type level, this information is not currently available. CMS appreciates your feedback and will continue to investigate ways to make the reports more informative and actionable for hospitals.



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Question 26: Please explain the difference between the supplemental files that accompany the HSR and the downloadable files at *Medicare.gov*.

Alongside the HSR, all hospitals receive three accompanying hospital-specific data files: the “Index Admission” file, the “Episode” file, and the “Beneficiary Risk Score” file. These files contain detailed information about the MSPB index admissions and episodes for each specific hospital.

The downloadable datasets available at [medicare.gov](https://www.medicare.gov) have general information about performance on the MSPB measure at the hospital, state, and national levels. This information is aggregated at each level and does not have the level of detail included in the hospital-specific data files. The data provided to hospitals through the Hospital-Specific Reports and supporting CSV files is not in the public domain.

Question 27: So in your opinion, what would have the largest impact on MSPB reduction efforts?

The HSRs and accompanying hospital-specific data files are a rich data source that enable hospitals to explore the driving forces behind their MSPB measure. For example, a hospital can analyze the breakdown of its spending by service types and period of service (from the HSR) and figure out the most expensive providers (from Episode file). With this information, the hospital can identify the areas where the spending is most concentrated and coordinate with other healthcare providers to improve efficiency. Thus, by improving care coordination and efficiency and reducing delivery system fragmentation, the provider can improve its relative performance.

The HSRs provide each hospital with the results of their own hospital and of other hospitals in their state and the nation for the MSPB measure. In addition to the MSPB measure, the HSR presents the major components used to calculate the MSPB measure (Average Spending per Episode, Average Risk-Adjusted Spending or MSPB Amount, Number of Eligible Admissions, and National Median MSPB Amount) for the hospital, state, and the U.S. Similarly, the HSR includes the national distribution of the MSPB measure and tables that provide a breakdown of:

- The MSPB spending by seven claim types and three time periods (3-days prior to index admission, during-index admission, and 30-days after hospital discharge); and*
- Spending (actual and expected) by Major Diagnostic Category (MDC).*

Question 28: Is it possible or is it realistic to monitor MSPB on a monthly basis?



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The MSPB Measure uses Medicare Parts A and B claims data from the Common Working File (CWF). These data, however, are not publicly available, as they contain confidential claims data from all hospitals nationally. While your hospital will not be able to monitor your MSPB measure monthly, we recommend examining the hospital-specific data files that came with your hospital-specific report.

Question 29: It doesn't seem like things such as preventative health exams and lab work should be included in the MSPB.

CMS appreciates your feedback and will continue to investigate ways to refine the MSPB Measure methodology.

If you have further questions regarding the MSPB Measure, please forward your question to cmsmspbmeasure@acumenllc.com.

END