Hospital Inpatient Quality Reporting (IQR) Program

Support Contractor

Hospital Inpatient Quality Reporting (IQR) and Hospital Value-Based Purchasing (VBP) Programs: Reviewing Your Claims-Based Measures Hospital-Specific Reports

Presentation Transcript

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Bethany Wheeler-Bunch: Hello and welcome to the Hospital Inpatient Quality Reporting and the Hospital Value-Based Purchasing Program to Reviewing your Claims Based Measures Hospital Specific Reports webinar. My name is Bethany Wheeler-Bunch and I am from the Hospital Inpatient VIQR Support Contractor. Before we begin, I'd like to make our first few regular announcements. This program is being recorded. A transcript of the presentation and the question and answers, will be posted to the inpatient website, www.*QualityReportingCenter*.com**.** If you registered for this event, a reminder email and the slides, were sent out to your email about two hours ago. If you did not receive that email you can download the slides at the inpatient website. Again, that's www.*QualityReportingCenter*.com. If you have a question as we move through the webinar, please type your question into the chat window with the slide number associated to your question, at the beginning. As time allows, we will have a short question and answer session at the conclusion of the webinar. Applicable questions that are not answered during our question and answer session will be posted to the www.*QualityReportingCenter*.com website. I would like to welcome Tamara Mohammed and Curtis Smith as today's presenters. Tamara is the Measure Implementation and Stakeholder Communication Lead at Yale-New Haven Health Center for Outcomes, Research, and Evaluation. Curtis is the Hospital Quality Reporting Project Lead at Customer Value Partners, the Healthcare Quality Analytics and Reporting Contract. Thank you to Tamara and Curtis, for presenting today.

This webinar will provide an overview of the Claims-Based Measures Hospital Specific Reports for the Hospital IQR Program and Hospital VBP Program. This overview consists of the following: A summary of the national rates and performance categories used in the Hospital IQR Program; details on receiving HSRs; a review of claims-based measure calculations and reading of the HSRs and a description of how to review measure calculations in requesting corrections in the hospital VBP program.

At the conclusion of the presentation, participants will be able to recall how performance categories are assigned using national rates; recognize how to access HSRs; interpret HSRs and results; and understand the process for submitting the review and corrections request.

In today's webinar we will be discussing the hospital-specific reports for the Hospital IQR Program and Hospital VBP Program.

A little later on in the presentation, Curtis will be presenting on the specifics on receiving those files. But first, I wanted to walk through which measures were included in the HSRs and their measurement periods. This slide displays the measures that will be included in your fiscal year 2019 Hospital IQR Program HSR. The HSR will include the mortality, readmission, complications, payment, EDAC and PSI measures. The specific measures and measurement periods are listed on this slide for your reference. The Hospital IQR Program HSRs will be provided to your hospital next month. Please note that the MSPB, an episode-based payment measure HSR, will be a separate bundle and will be provided to hospitals in late May or early June of this year.

This slide contains the measures and measurement periods for the fiscal year 2019 Hospital VBP Program HSRs that were provided last week. The HSRs included in this bundle, are the 30-day mortality measures for AMI, heart failure and pneumonia and the 90-day complication measure for THA/TKA. We anticipate that the Hospital VBP Program Percentage Payment Summary Reports, which use these measures along with the results of the other measures included in the program, will be released on or around August 1, 2018.

So, when you are reviewing your HSRs for the Hospital VBP Program, we would like everyone to be reminded of the following, first, only performance period data is listed in the HSR for the Hospital VBP Program. On the last slide there were two time periods listed, the baseline period and the performance period. If you would like to reference your hospital's baseline period results, please download your fiscal year 2019 Baseline Measures Report in the *QualityNet Secure Portal*. It is available in the dropdown that says run reports and will not be located in the secure

file transfer section like an HSR. If you need any assistance finding either the Baseline Measures Report or Your Hospital VBP Program HSR, please contact the *QualityNet* help desk. Second, we would like to remind everyone that the 90-day complication measure for THA/TKA is new to the Hospital VBP Program in fiscal year 2019. This measure will be placed in the clinical care domain. Next, the 30-day mortality measure for pneumonia does not include the expanded cohort that has been used for a few years now, in the Hospital IQR Program. CMS will begin using the updated cohort in the fiscal year 2021 Hospital VBP Program. Last, the PSI 90 composite was removed from the Hospital VBP Program, beginning with fiscal year 2019.You will still see this measure on your Baseline Measures Report. However, this measure will not be included in the total performance score calculations and will not impact your payment adjustment results. If you have any questions regarding these reminders, please either type them into the chat window or submit them through the inpatient Q&A Tool located on *QualityNet*. Before I turn the webinar over to our first presenter, I would like to remind you that if you have a question, to ask to one of our presenters, please type the slide number at the beginning of your question. I would now like to turn the webinar over to Tamara Mohammed, to present on the Fiscal Year 2019 Hospital IQR Program Claims-Based Measure Results. Tamara, the floor is yours.

Tamara Mohammed: Thank you Bethany. Hi everyone. So, I'm going to present briefly to you on two things. Firstly, I'm going to provide you with a preview of the national results for fiscal year 2019 for the claims-based outcome measures. And secondly, I'm also going to review the approach that CMS uses to categorize hospital performance for these measures.

So, to begin, this slide provides you information on the national results for the mortality, readmission, complication and payment measures for fiscal year 2019 for the IQR or Inpatient Quality Reporting Program. To quickly orient you to the slide, the column on the left-hand slide lists the measures. The column in the middle, the gray column, lists national observed results for fiscal year 2019. And these are results that will be displayed on the *Hospital Compare* later this year, sometime this summer, and they will be applied to fiscal year 2019. And then the last column on the right-hand

side depicts the change in the national rate from fiscal year 2018. So, it tells you whether or not the rates will remain the same, whether they have increased or decreased. To quickly run you through these, the mortality measures, as you can see, for fiscal year 2019, the national results range from around 3% per CABG mortality to around 16% for pneumonia mortality. And with the exception of COPD mortality, you can see that in fiscal year 2019 we have experienced a reduction in the national mortality rate in comparison to fiscal year 2018 and this is usually by about .1 to .4 percentage points. For the readmission measures, the national observed readmission rates this year, range from around 4% for hip/knee readmissions, around 20% for COPD readmission. The national readmission rates for fiscal year 2019 haven't increased this year. They have either remained the same or decreased since fiscal year 2018. And specifically, if you take a look at the heart failure readmission measure and the hospital-wide readmission measure, you will see that these are the two measures that have remained the same for fiscal year 2019. All the other readmission measures have experienced reductions in the national rate. For the hip/knee complication measure, you can see that the national rates for fiscal year 2019 is 2.6% and this is a slight reduction in the rates in comparison to last year. And lastly, here I provide for you the national payments, the national average payments for fiscal year 2019, for the four payment measures, which range from around 16% for heart failure payments, sorry $16,000 for heart failure payments, to almost $24,000 for AMI payments this year. And the payment measures that you see here, they are inflation adjusted so they're presented to you in 2016 dollars. We typically do not compare the payment measures across fiscal years and that is why we describe these are indeterminable in comparison to fiscal year 2018.

These national rates are used by CMS to help categorize hospital performance on these measures, and so in these slides, I'm going to take you through the approach that CMS uses to categorize hospital performance on these measures. First, I'm going to describe to you the approach that CMS typically uses for most of the outcome measures and then I'll describe the approach CMS uses for the payment measures, and

last we'll end by describing the approach that CMS uses for the EDAC or Excess Days in Acute Care measures. And as a reminder, these performance categories are important because they will be publicly reported in *Hospital Compare* again later this year, and around July 2018 you will see updated information for your hospital performance on each of these measures. And so, I'm going to start with the image on the left-hand side of the screen and this image describes the approach CMS uses to categorize hospital performance with the mortality readmission and complication measures. So, for these measures as long as the hospital has at least 25 eligible cases during the performance period, which is typically a three-year period, it's only one year for the hospital-wide readmission measure, as long as they have 25 cases in that particular time period then they'll be classified into one of three categories. And these three categories are depicted here in this image. But at the top left-hand corner you can see the green hospital, Hospital A shows you an example for a hospital that has been categorized as better than national. The yellow hospital, Hospital B shows you an example for a hospital categorized as no different than national. And Hospital C in red, depicts an example of a hospital categorized as worse than national. Now in order to classify these hospitals into these categories, what CMS does is compares the hospital 95% confidence interval against the national observed rate.

And so, in this example you can see that there's a small gray map of the United States at the top and that depicts the national rate which in this example is 15.6% and there's a small dotted line going down that shows you how hospitals compare to that 15.6%. If you take the example of Hospital A, you can see that it's point estimate, so the estimated, let's pretend it's the AMI readmission measure, so the estimated readmission rate for the hospital, for AMI readmission is 12.6% and with the entire interval estimate ranging from 9.4% to 14.3%, I believe the numbers are. What this means is that we estimate the hospital AMI readmission rate, to be 12.6% and we're 95% sure that the true estimate is somewhere between 9.4% and 14.3%. Then when we compare this interval estimate the entire green line, to the national observed rate, you can see that the entire green line is less than, or it is less than or to the left, of the national observed

rate. And so, this means that because the entire line, the entire interval estimate is less than the national rate. This means that we classify the hospital as better than the nation. In contrast, with the red hospital, Hospital C, the entire interval estimates, the entire red line, is above the national observed rate of 15.6% and so we classify the hospital as worse than national. And lastly, for the yellow hospital, Hospital C, you can see, or Hospital B, you can see that the 95% interval estimate includes that 15.6% and it crosses over the dotted line that represents national observed rate. In this instance, because the interval estimate contains the national observed rates, this means that the hospital is classified as no different than national. And that's the approach that we use for the vast majority of the measures. The payment measures, the image on the right-hand side of the screen, use in essence, a similar approach. But the interval estimate this time is compared against a national average payment. And the performance categories have a different sort of label. So, they're less than national and so that's better than national. And they're greater than national instead of worse than national. But again, we're still comparing the entire interval estimate against the national results in order to determine the hospital's performance category.

And lastly, for the EDAC measures, or the Excess Days in Acute Care measures, again the concept is entirely the same, but this time instead of using a national rate, what we are comparing against is expected days of zero, zero expected days, and that's what you see at the top of the image, we have a hospital with zero days of expected performance instead of a national map of the United States. And again, the labels here are different. So, you see fewer days than average, average days and more days than average. But the entire principle is the same. If the entire interval estimate is less than zero days then the hospital is classified as fewer days than average. If the entire interval estimate, the one in red, is greater than zero days, that is classified as more days than average. And if the entire interval estimate contains zero days within that range, then the hospital is classified as average days. And now I'm going to turn it back to Bethany.

Bethany Wheeler-Bunch: Thank you Tamara for reviewing the changes in the national results and providing an overview of interpreting your performance category in the

	Hospital IQR Program. I will now turn the presentation over to Curtis Smith, to review more specifics with receiving and reviewing your HSRs. Curtis, the floor is yours.
Curtis Smith:	Thank you Bethany. Hi, I'm Curtis Smith with CVP. I'm a Project Lead on the Healthcare Quality Analytics and Reporting Contract or HIQAR.

A *QualityNet* notification indicating the reports are available, will be sent via email to those who are registered for the notifications regarding the Hospital Inpatient Quality Reporting Program. Hospital users with the "Hospital Reporting Feedback - Inpatient" role and the "File Exchange and Search" role, will have access to the HSRs and user guide. For those with the correct access, the HSRs and user guide will be in their My *QualityNet* Secure File Transfer inbox.

The FY2019_HVBP_HSR_UserGuide.pdf that accompanies your complication and mortality HSRs, includes additional information about the data in your HSRs and also includes examples for the complication and mortality replication process. The FY2019_Hospital_IQR_Program_HUG.pdf that accompanies the IQR HSRs, includes additional information about the data in the HSRs.

IQR HSRs are provided to hospitals to allow them to preview their information before it is publicly reported. Here we will provide an overview of the IQR HSRs.

For IQR, you will receive an HSR bundle zip file that includes the following items: Your Readmission_HSR; HWR_HSR; your Mortality_HSR; your Complication_HSR; your Payment_HSR; your CMS_PSI_ HSR; your excess days in acute care, or EDAC HSR; and your Hospital_IQR_Program_HUG.

The fiscal year 2019 IQR program has the following updates: The pneumonia excess days in acute care or EDAC measure, will be publicly reported for the first time this year; the CMS PSI version 8 software, was updated for ICD10 specifications this year; and Veterans Health Administration data is included in the AMI heart failure and pneumonia cohorts for the IQR mortality and readmission measures.

Each of the IQR HSRs uses same basic structure for consistency with tabs providing the following information: Your hospital's measure results; the distribution of state and national performance categories; the discharge level data used to calculate your hospital's measure results; and the case mix comparison of the risk factors used for risk adjusting the measures.

Each HSR starts with a Measure Results, or Performance table, that provides your hospital's measure results for the measures included in the given HSR. It provides the following information: The performance category that will be reported on *Hospital Compare*; the number of eligible discharges included in the measure; your hospital's rate for each category and interval estimates that were used to define the performance category that was assigned to your hospital; the national values are provided for comparison; and with the exception of CMS PSI, state values are provided for comparison as well.

For each IQR HSR, include a Distribution tab that shows the distribution of hospitals across the different performance categories within the nation and within your state. When coupled with the performance categories for your hospital from the previous tab, this can show how your hospital's performance compares to the rest of the hospitals in the nation, as well as in your state.

The readmission mortality hospital wide readmission, complication and CMS PSI HSRs, have Discharge tabs that provides the discharge level data that was used to produce each measure. The readmission mortality hospital-wide readmission complication and CMS PSI HSRs have a Discharge tab that provides the discharge level data that was used to produce each measure. The readmission and mortality HSRs include all discharges that meet the inclusion requirements for each measure, and use the inclusion/exclusion indicator to identify discharges that were excluded from the measure. In these HSRs the count of discharges with an inclusion/exclusion indicator of zero, can be tied to the denominator for each measure and performance tab. These are the eligible discharges. Due to the volume of discharges and their measures, the hospital-wide readmission in CMS PSI HSRs only include discharges that are part of the numerator for each measure. The count of events in eligible discharges,

for example, readmission mortality or complication, for the measure, can be tied to the numerator in the Performance tab.

In the hip/knee complications measure, an index discharge can have more than one complication associated with it. However, only one complication is included in the calculation of the measure. When there is more than one complication for the additional complication record column, it will have a "No" value for the first complication and a "Yes" value for each additional complication attributed to that index discharge. If you filter the additional complication records column to "No," you can file the same process used in readmissions and mortality HSRs, to identify the count of eligible discharges and the events in the eligible discharges that can be tied to the denominator and numerator in your Performance tab.

The EDAC HSR differs from the other HSRs in that it uses 2 Discharge-Level data tabs to provide the Discharge-Level detail and Event-Level detail. The Summary of Event tabs lists the discharges that are included in the measure. It follows the same inclusion/exclusion numerator and denominator logic as the Discharges tab from the other HSRs. It lists summary level event information about the emergency department visits, observation stay visits and unplanned inpatient readmissions within the thirty days following discharge. The ID number on this tab is used to tie the events on the Patient Level Summary tab. Note that in the row with ID number 4 it lists the patient had two emergency department visits and three observation stays in the thirty days following discharge.

The EDAC Patient-Level Summary tab provides the detail level information for the emergency department, observation, and unplanned readmission visits listed in the Summary of Events tab. There are one too many patient level summary records for each Summary Event tab that had a record. Each individual event for a given discharge, is listed on its own row. The ID number on the Patient-Level Summary tab, can be used to tie the record or records to the corresponding number on the Summary of Events tab. The row here with ID number 4, are the 2 emergency department visits and three observation stays on the Patient-Level Summary records for the Summary of Events we saw on the previous slide.

The payment HSR has three tabs for providing discharge level data, the Index Stay and the Summary tab and two Post-Acute Care tabs. The Index Stay and Summary tab list the discharges that are included in the measure. It includes all discharges that meet the inclusion requirements for each measure and uses the inclusion/exclusion indicator to identify the discharges that were excluded from the measure. It provides the summary-level payment information and provides a split between facility, physician and post-acute care payments. The Total Episode Payments value is split into payments for the index admission and payments after the index admission, represented by the Total Index Admission Payments column and a Total Post-Acute Care Payments column. The Total Index Admission Payments is further split up into the Facility and Physician Payment columns seen here.

The Payment Post-Acute Care tables break out the post-acute care costs to provide further detail on where the post-acute care payments were made. The Condition Payment Post-Acute Care tab provides distribution to post-acute care costs across 11 care settings for AMI, heart failure and pneumonia payment measures. The procedure Payment Post-Acute Care tab provides distributions of post-acute care costs across 13 care settings for the total hip arthroplasty and total knee arthroplasty payment measure.

Each IQR HSR, except for CMS PSI, includes one or two case-mix comparison tabs with the distribution of patient risk factors for the included measures. Procedure-based measures are listed in a separate tab from diagnosis-based measures and the readmission, mortality and payment HSRs. Note that not all risk factors apply to every measure. N/A is used to denote risk factors that do not apply to a given measure. If your hospital has no qualifying cases for a measure then NQ will show in the risk factor cells. These are the conditions that are used to risk adjust the measure rate to account for differences in the health of your patient population in comparison to the national average. Hospital percentages are provided along with the state and national percentages to let you see how your patient population compares for each risk factor.

In the complication HSR, table 2 displays the percentage of eligible index submissions where the patient experienced each type of complication. A

patient may have more than one complication associated with an index admission, but only one complication is counted in the raw complication rate. The percentages for the individual complications, may not add up to the raw complication rate. If a patient has the same specific complication coded multiple times, this is only counted once in the specific complication rates provided in the table.

Next is the HVBP mortality HSR.

The mortality HSR is laid out to provide the hospital results in the first table and then go into further detail in the tables that follow, to show how that information was derived. Table 1 provides the hospital results for AMI, heart failure and pneumonia mortality measures that will be used in the Hospital Value-Based Purchasing Program for calculating the achievement and improvement points for these outcome measures. The achievement threshold and the benchmark were calculated on fiscal year 2019 baseline data and provided here for convenience. The following columns are found in Table 1. The number of eligible discharges is account of the discharges used for the measure calculations. And performance period survival rate will be used to calculate the achievement and improvement points for these outcome measures in the Hospital VBP Program. The achievement threshold was calculated as a median survival rate among all hospitals with measure results in at least 25 cases during the fiscal year 2019 baseline period. The benchmark as calculated as a mean average of the top 10% of survival rates among all hospitals with measure results in at least 25 cases during the fiscal year 2019 baseline period.

Table 2 includes additional provider level values that are used in the calculation of the performance period survival rate. The following columns are found in Table 2. The Predicted Deaths is a number of predicted deaths within 30 days from admission, on the basis of your hospital's performance with a observed case mix and your hospital's estimated effect on mortality. The Expected Deaths is the number of expected deaths within 30 days of admission on the basis of the average hospital performance with your hospital's case mix and average hospital effect. The replication process detailed later will show how the predicted

deaths and expected deaths, are calculated. The National Observed Mortality Rate is calculated as the number of observed 30-day deaths nationally, divided by the number of eligible discharges nationally. The Risk Standardized Mortality Rate, or RSMR, is the mortality rate that has been adjusted for differences in case mix across hospitals and a hospital specific effect. The Performance Period Survival Rate is calculated as 1 minus the RSMR.

The Discharge tables contain discharge level data for all Part A Medicare, fee for service, patient stays with a primary qualifying diagnosis of AMI, heart failure or pneumonia accordingly, that had a discharge date in the reporting period for patients who are 65 and above at the time of admission. The ID number is provided as a way to reference records while avoiding sharing PII or PHI. The HICNO column through the Discharge Destination column, contain the data as it was pulled from hospital claims. The Index Stay column indicates whether the stay is included in measure calculations, by a "Yes" or "No." The stays that are flagged "Yes" represent the discharges found in the Number of Discharges column in tables 1 and 2. For stays that are not included in the measure, the Inclusions/Exclusions Indicator columns have a number one through 9 indicating the reasons, or reason, why the stay was excluded. The corresponding descriptions for these numbers are defined in your user guide that accompanies the HSR.

Death within 30 Days flags "Yes" or "No" if a patient dies within 30 days of admission. Risk Factor Variable columns contain the model risk factors which vary by measure. For each measure these columns start with mean age minus 65 risk factor and end with Chronic Liver Disease risk factor. The risk factors will vary for each measure. Table 4 and your user guide provide a description for each. Row 8 in your HSR contains the model coefficients for each risk factor, which are estimate over data for all hospitals. Beginning in Row 9 of your HSR under the risk factors, the cell will contain a one if the patient was identified as having that risk factor and equals a year above 65, for the age 65 variable. Otherwise, it will have a zero. HOSP_EFFECT represents the underlying risk of a mortality at the specific hospital after accounting for patient risk. AVG_EFFECT

represents the underlying risk of mortality at the average hospital after accounting for patient risk.

Again, the user guide is distributed with your HSRs in an Excel document with the sample calculations and step by step instructions can be requested from the *QualityNet* help desk. Replication process with mortality measures include the following steps: Calculate predicted deaths; calculate expected deaths; calculate the risk standardized mortality rate and calculate the performance period survival rate.

For replication, save a copy of the HSR to work from and complete the calculations in Excel, working below the actual data. The replication steps should be completed on the discharge level worksheet for each mortality measure. The first step of replicating the results is to identify eligible discharges. To do this, limit the Index Stay column to "Yes", using the filter above.

For each eligible discharge identified in a previous step, multiply each risk factor flag by their relevant coefficient found in Row 8. As an example of the calculation, the formulas are shown in Rows 31, 32 and 33 and also highlighted in blue. When the results are compared to the table above, note the coefficients are brought down for the rows that had a risk flag of 1.

Next, sum all the products risk factor flags times coefficient from the previous step, for each index discharge. The calculation that's shown as an example, is for the value in the first row. Then add the hospital-specific effect, which is the HOSP_EFFECT value found in cell AN8. A calculation is shown as an example. Note, this example is for AMI mortality measure. The heart failure and pneumonia measures both have more risk factors so the formula example shown in these steps will be different for those measures.

Next, calculate the predicted probability of a 30-day death for each stay using the formula shown and the results from the previous step. Note that the EXP in the formula is the Excel exponential function.

Finally, sum the predicted probability of a 30-day death for all the stays, to get the number of predicted deaths within 30 days from readmission.

When this value is rounded to two decimal places, it should match the predicted deaths value for this measure in table 2. The example formula was used to sum the values for the predicted deaths in cell AR41. Each hospital will likely have a different quantity of discharges, so the formulas will need to be adjusted accordingly.

To calculate the expected deaths, start with the sum products, risk factor flags, times coefficient, that were created in the predicted deaths calculation and add an average hospital effect which is average effect value found in cell AO8. Next, calculate the expected probability of a 30-day death for each day using the formula shown and the results from the previous step.

Finally, sum the expected probability of a 30-day death for all the stays, to get the number of expected deaths within 30 days from readmission. When this value is rounded to two decimal places, it should mask the expected deaths value for this measure in table 2. The example formula shown was used to sum the values for the predicted deaths in cell AQ41. Again, each hospital will likely have a different quantity of discharges and will need to adjust the formulas accordingly.

To calculate the risk standardized mortality rate, first divide the predicted deaths by the expected deaths. The result is the standardized mortality rate. This value is then multiplied by the national observed mortality rate from Table 2, to get the risk standardized mortality rate. When this value is rounded to 6 decimal places, it should match the risk standardized mortality rate found in Table 2. The Excel formula shown for the calculations are shown in column AS. The result of these calculations are shown in Column AT. The performance period survival rate is calculated as one minus the risk standardized mortality rate. When this value is rounded to six decimal places it should match the performance period survival rate found in Table 2. The Excel formula used for the calculation, is shown in Column AS. The result of the calculation is shown in Column AT. Due to differences in rounding between SAS and Excel, there may be a minor difference at the 6th decimal place. When CMS calculates your hospital rates, it uses SAS and the values in your HSR are based on those SAS calculations.

Starting this year, in fiscal year 2019, the elective primary total hip arthroplasty/total knee arthroplasty risk standardized complication measure, has been added to HVBP program. A new HSR has been added to provide the detailed information on the calculation of this measure.

Similar to the mortality HSR, the complication HSR is laid out to provide the hospital results in the first table and then go into further detail in the later tables.

The following columns are found in Table 1. The Number of Eligible Discharges is a count of discharges used for measure calculations. The Risk-Standardized Complication Rate will be used to calculate achievement and improvement points for this outcome measure in the Hospital VBP Program. The achievement threshold was calculated as a median complication rate among all hospitals with measure results in minimum case size greater than 25 during the fiscal year 2019 baseline period. The benchmark was calculated as a mean of a top decile of complication rates among all hospitals of measure results and minimum case size greater than 25 during the fiscal year 2019 baseline period.

Table 2 includes additional provider level values that are used in the calculation of the risk standardized complication rate. The following columns are found in table 2. The Predicted Admissions with a Complication is the number of predicted admissions with a complication within 90 days from admission, based on your hospital's performance with its observed case mix and your hospital's estimated effect on complications. The Expected Admissions with a Complication is a number of expected admissions with a complication within 90 days of admission, based on average hospital performance with your hospital's case mix and the average hospital effect on complications. The replication process detailed earlier, shows how the predicted and expected rates are calculated. The National Observed Complication Rate is the number of observed admissions with a complication within 90 days nationally, divided by the number of eligible discharges nationally. The Risk-Standardized Complication Rate is a predicted admissions with a complication, divided by the expected admissions for the complication, then multiplied by the national observed complication rate.

The Complication HSR Discharges Table contains many of the same columns as the Mortality HSR Discharges Table. A stay can appear multiple times on a discharges table if the patient had more than one complication for that discharge. However, it is only included once in the calculation of the measure. Similar to IQR calculations to HSR, the additional complication record column is used to flag the additional complications. In the example seen here, the first four rows are the same index discharge and the list the four complication records that are attributed to that discharge. This is easily identified noting that the additional complication record column has a "Yes" value for the second through the fourth record.

The discharge table contains further discharge level data for the complication measure. The complication field identifies the complication that occurred whether AMI, pneumonia, sepsis, surgical site bleeding, pulmonary embolism, death, mechanical complication or infection. If a patient did not have a complication, it will appear as N/A. The rest of the column shown here contains specific information pertaining to the listed complication.

The replication process for the hip/knee complication measure is the same as a mortality measure with one difference. In the first step, when you limit your replication calculations to rows where index stay, or Column G, equals "Yes," you must also limit it to rows where additional complication, record B, or Column H, equals "No." The rest of the complication process would follow the same steps as those laid out for the mortality measures.

When is the review and corrections period? The HVBP review and corrections period for fiscal year 2019 is April 11, 2018 to May 10, 2018. Pay special attention to the deadline of the review and corrections period since requests sent after May 10, 2018 will not result in a correction.

Review and correction requests can be submitted via email to QNetSupport@hcqis.org or over the phone, to the numbers on your screen. When emailing in a request, include Hospital VBP in the subject line, to aid in the help desk process. Again, if you are referencing a

specific case or discharge, please reference the ID number associated in HSR rather than sending patient information via email.

The suspected calculation error on your HSR, can be submitted for review with the possibility of a correction. General questions about the HSRs, the mortality measures or the complication measure, may also be submitted. Requests for submission of a new or corrected claim, are not allowed. A snapshot of the administrative claims data is available approximately 90 days after the end of the period, is taken in order to perform program calculations. For fiscal year 2019 the applicable period ends on June 30, 2017 and the administrative claims data file used for calculations was produced on September 29, 2017. The review and corrections process does not allow hospitals to submit additional corrections related to the underlying claims data used to calculate the rates, nor add new claims to the data extract used to calculate the rates. CMS cannot regenerate the report for this period to reflect corrected claims. If your facility submitted, or wishes to submit a corrected claim after September 29, 2017, that pertain to an incorrect claim originally submitted prior to September 29, 2017, the corrected claim will not be included in your measure results. Because claims data are generated by the hospital itself, hospitals in general, always have the opportunity to review and correct this data under the deadline specified. In many cases, where the claims listed in HSR don't match internal records, is due to the fact that corrections were made to those claims after the deadline.

And now we'll take questions.

Bethany Wheeler-Bunch: Thank you Curtis, for providing that overview. We have received many great questions in the chat window today, so we will try to cover as many as we can in this Q&A session. The first few questions are for Tamara. The first question is in reference to slide 11. Could you please tell me why slide 11 does not show a national rate for the EDAC measures?

Tamara Mohammed: Slide 11 doesn't contain information on the national averages for the EDAC measures because the EDAC measures compare hospital results against zero instead of comparing them to a national results assessed hospital performance. As addressed on this slide and both previous slides,

the national rates they usually use as client performance categories, but EDAC is an exception. It compares the interval estimate against zero instead of comparing it to a national result. And this is why we don't typically provide the information on the national averages for the EDAC measures.

Bethany Wheeler-Bunch: Thank you Tamara. The next question is also for you. For the payment measures, does less than the national mean better or worse?

Tamara Mohammed: So for the payment measures, a performance category of less the national does not imply whether or not the hospital is performing better or worse, and this is because the measure results do not provide an indication of the quality of care to hospitals. This is true also for the payment category of greater the national. It doesn't mean that the hospital is performing better or worse. And the reason this is so is because the payment measures are not meant to be interpreted in isolation. They're really meant to be considered alongside other existing quality outcome measures such as the mortality measures. So, in brief, a payment categorization of less the national or greater the national, this simply indicates that the average cost of treatment at your hospital for a sit in condition for AMI, heart failure or pneumonia, tends to be either significantly less or significantly more than the average cost of treatment for that condition, in the nation. It does not really speak to the quality of care at your organization.

Bethany Wheeler-Bunch: Thank you Tamara. That was a great explanation. We have one more question for you. Why can't we compare payments across years?

Tamara Mohammed: So the reason we can't compare payments across years is because the national payment results are usually adjusted for inflation, based on a specific year. For example, the fiscal year 2018 results are adjusted for inflation based on 2016 dollars. This is different from the year you would adjust for inflation for the fiscal year 2017 results which used 2015 dollars. As a result, it really wouldn't be fair for us to then compare the results as they're reported, without adjusting for inflation based on using the same year dollars. And this is why we really don't compare payment measures across the years.

Bethany Wheeler-Bunch: Thank you Tamara. The next two questions are now for Curtis. The first question is, how do the readmission measures handle same day readmissions?

Curtis Smith: Thank you. None of the readmission measures consider patients as readmitted if the readmission was to the same hospital for the same condition or procedure on the same calendar day. This is done to align with the regulatory requirements since CMS rules already require prospective payment system hospitals, provide same day, same condition readmissions into one claim. However, the readmission measures do consider patients as readmitted if they had an eligible readmission to the same hospital on the same day, but for a different condition or procedure.

Bethany Wheeler-Bunch: Thank you Curtis. Our next question is, our hospital is in a rural location, are we being grouped in with city hospitals with a different patient population? Does this influence our payment measure results in the HSR?

Curtis Smith: Payment measures are standardized payments by removing geographic differences and policy adjustments that are independent of care decisions. In addition, the payment measures are adjusted for differences in risk variables like comorbidities, patient age and medical history. Together these adjustments ensure that the measure results in your HSR, reflect a variation in payments unrelated to where your hospital is located.

Bethany Wheeler-Bunch: Thank you. Our next question is related to the mortality measures. Could a single patient's death be included in two different discharge tables on my HSR? For example, could one patient's death be counted in the AMI and COPD mortality?

Curtis Smith: Yes, it could. Each measure is calculated independently from the other measures. So, if a patient meets the cohort criteria for two different mortality measures, with admissions each falling within 30 days of death, then the death would be counted as a numerator event for both measures.

Bethany Wheeler-Bunch: Thank you. And here is another question related to the 30-day mortality measures. Is the 30-day mortality measured from admission date of index admission or from discharge date of index admission?

Curtis Smith: The 30-day time period for the mortality measure, starts with the date of index admission.

Bethany Wheeler-Bunch: Thank you for that clarification. The next question is in relation to the complication measure. Why in the Hospital Value-Based Purchasing complication HSR are there more rows in table 3 than eligible discharges in tables 1 and 2?

Curtis Smith: There are more discharges in table 3 but they're not all eligible. The reasons to not be eligible include if the patient left against medical advice, the patient was transferred to the facility where index admission occurred, the patient had more than two hip/knee procedures during index admission, etc. Additionally, some discharges have multiple rows if there were multiple complications during the stay. These are indicated in the additional complication record column. If you count all the rows where index stay equals "Yes" and additional complication record equals "No," then it should match your eligible discharges from table 1 and 2.

Bethany Wheeler-Bunch: Thank you. The next question, in the IQR CMS PSI HSR table for discharge level information, the list of diagnosis codes include alphanumeric values, however last year they did not. Could you explain why this is?

Curtis Smith: Sure. From October 1, 2015 the ICD9 diagnosis coding system was replaced with the ICD10 diagnosis coding system. The reporting period for the CMS PSI HSR is from October 1, 2015 to June 30, 2017. So, all the diagnosis codes listed in HSR are ICD10 codes which has a first character as alpha instead of a number.

Bethany Wheeler-Bunch: Thank you. And I'll squeeze in one more regarding the PSI measures. What is the difference between the CMS recalibrated PSI software in the publicly available all payer version 7 on the ARC Website?

Curtis Smith: The main difference is that the CMS recalibrated version 8 software includes a risk adjustment model based on reference population of Medicare fee for service discharges, while the all payer ARC version 7 does not.

Bethany Wheeler-Bunch: Thank you. And now a question regarding the readmission measure. How does the hospital-wide readmission measure identify the number of eligible discharges at my hospital in table 6?

Curtis Smith: For the hospital-wide readmission measure there are five cohorts in the denominator: Medicine, surgery gynecology, cardiorespiratory, cardiovascular and neurology. Each cohort includes its own conditions for inclusion. The specifics on how the measure counts readmissions can be found in the all calls hospital-wide readmission measure specification report. A link to the copy of the report can be found in your hospital user guide.

Bethany Wheeler-Bunch: Thank you. And I think we have enough time for one more question. What is the difference between predicted and expected deaths in the mortality HSR?

Curtis Smith: Sure. Predicted deaths are the number of deaths within 30 days from admission, based on your hospital's performance with its observed case mix and your hospital's effect on mortality. While expected deaths are the number of deaths within 30 days of admission based on the average hospital performance with your hospital's case mix and the average hospital effect on mortality.

Bethany Wheeler-Bunch: Thank you Curtis for that explanation and thank you Tamara also, for your willingness to answer questions and present on today's webinar. Thank you to everyone for joining today's webinar. I will now hand over the webinar to Dr. Debra Price, to discuss continuing education credit. Thank you all and have a great rest of your day.

Debra Price: Thank you. This event has been approved for one continuing education credit. You must report your own credit to your respective boards. Complete the survey and then register for your certificate. Registration is automatic and instantaneous. Therefore, if you do not get a response right away, there is a firewall blocking your link. You will need to register as a new user using your personal email and phone number.

If you are a new user or have had any problems getting your credits, use the new user link. If you have not had any issues getting your credits, use the existing user link. Thank you for joining us today. We hope you

learned something. All questions will be answered and posted on our www.*QualityReportingCenter*.com website at a later date. Enjoy the rest of your day. Goodbye.