Hospital Inpatient Quality Reporting (IQR) Program

Clinical Episode-Based Payment (CEBP) Measures

Presentation Transcript

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Candace Jackson: Hello and welcome to the Hospital IQR Program's Clinical Episode-Based Payment Measures webinar. My name is Candace Jackson and I am the Hospital Inpatient Quality Reporting Program's Support Contractor lead from the Hospital Inpatient Values, Incentives, and Quality Reporting Outreach and Education Support Contractor. I will be hosting today's event. Before we begin, I would like to make a few announcements. This program is being recorded. A transcript of the presentation and the questions and answers will be posted to the inpatient website, www.qualityreportingcenter.com, in the near future. If you have registered for this event, the reminder email and the slides were sent out to your email address about two hours ago. If you did not receive that email, you can download the slides at the inpatient website. Again, that's www.qualityreoprtingcenter.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 the question-and-answer session will be posted to the qualityreportingcenter.com website in the upcoming week. I would now like to welcome and introduce our guest speaker for today, David Ruiz. David leads the Data & Analytics team at Econometrica. He holds a Master of Arts degree in Economics. David is the project director for several CMS projects at Econometrica, which includes directing measure calculations, data analyses, and reporting to the clinical episode-based payment measures. David, the floor is yours.

David Ruiz: Thank you. The purpose of this presentation is to provide an overview of the clinical episode-based payment measures and hospital-specific reports that contain data on these measures. This overview includes discussing the goals of CEBP measures, measure methodology, and how to perform CEBP measure calculations. Additionally, we will review CEBP HSR content and where to locate related supplementary information.

By the end of the presentation, we hope that you'll be able to identify the goals of the CEBP measures, explain the CEBP measures methodology

and locate the following CEBP documents: each hospital's HSR, supplemental files, and additional measure information on *QualityNet* that includes measure specification documents, measure-grouping rule information, frequently-asked questions, mock HSR, and hospital-specific data files description.

The CEBP measures reflect clinically coherent groupings of healthcare services that can be used to assess providers' resource use. Specifically, these measures assess Medicare spending for clinically related services for a condition or procedure CEBP episode, an episode that is comprised of periods immediately prior to, during, and following a patient's hospital stay for a given condition or procedure. There are six CEBP measures, three condition measures, and three procedural measures. The condition measures offer cellulitis, gastrointestinal or GI hemorrhage, and kidney/urinary tract infection, or Kidney/UTI. The procedural measures are for aortic aneurysm, colectomy, common duct exploration, and spinal fusion.

The CEBP measures will become part of the IQR Program measure set for payment determination starting fiscal year 2019. For this year, 2017, the condition measures are reported in the HSRs for informational purposes only, and neither the condition or procedural measures will be publicly reported in *Hospital Compare*. However, in 2018, condition and procedural measures will be provided in an HSR and publicly posted on *Hospital Compare*.

The three condition measures and three procedural measures were selected based on the following criteria. One, they constituted a significant share of Medicare payments and potential savings during and surrounding a hospital stay. Two, they represented services that could be linked to care provided during a hospitalization. Three, they comprise a substantial portion of payments and potential savings for post-acute care. Four, they reflect high variation in post-discharge payments, which enables differentiation among hospitals. Five, these conditions and procedures are managed by general physicians or hospitalists, or by surgical sub-specialists, depending on the type of measure.

The CEBP measures follow the general construction of the Medicare Spending per Beneficiary, or MSPB measure, in terms of including standardized payments for Medicare Part A and Part B services, risk adjustment for individual patient characteristics, and having an episode window that is three days prior to the inpatient admission, also known as the index admission through 30 days after hospital discharge. However, unlike the MSPB measure, CEBP measures include only Medicare Part A and Part B services that are clinically related to a condition or a procedure. The CEBP episodes may also begin during the 30-day post-discharge window of another CEBP episode if the readmission needs an episodes trigger specifications. For example, if a beneficiary had an upper GI hemorrhage and was readmitted within 30 days after discharge for a recurrent upper GI hemorrhage, the readmission would be grouped to the first episode and would also begin a new episode. Likewise, if a beneficiary had an upper GI hemorrhage episode with a readmission for a kidney or urinary tract infection within 30 days after discharge, perhaps as a complication of a GI hemorrhage admission, it could be grouped to the first GI hemorrhage episode and trigger a new kidney/UTI episode.

During this introduction to the CEBP measures, I will now review the goals of the CEBP measures, the measure methodology, calculation steps, and example calculations. Afterwards, I will go over the hospital's physical reports and supplemental files to help everyone better understand these reports and data.

I will now start with the goals of these measures.

In conjunction with the IQR Program quality measures, the CEBP measures aim to contribute to the overall picture of the provider's clinical effectiveness and efficiency, and allow meaningful comparison between providers, based on resource use for certain conditions procedures. For example, hospitals can look to different examples of services to identify potential areas for improving efficiency through actions such as improving coordination with pre-admission and post-acute care providers to reduce the likelihood of a readmission.

Next, I will provide a description of the measure methodology and define some key terms.

The CEBP measures are claims-based measures that include price standardized payments for all Medicare Part A and Part B services grouped into treatment services and post-discharge services. The figure on this slide provides an overview of this grouping for each CEBP measure. The episode start and episode end are denoted by black triangles. The index submission, also known as the episode trigger, and hospital discharge are indicated by red triangles. To group clinically related services, each episode is subdivided into treatment services and post-discharge services, shown in blue and purple respectively.

Clinically related treatment services to a given CEBP condition or procedure measure are denoted by the blue filled triangles and these services are included in the CEBP measure calculation. Likewise, clinically related post-discharge services are denoted by the purple filled triangles and these services are also included in the CEBP measure calculation. The unfilled triangles under the treatment service and post-discharge service groupings denote services that are not clinically related to the given condition or procedure measure. These services are not counted in the CEBP measure calculation. We will now provide more details about CEBP episodes and clinically related services in the next three slides.

As we talk about CEBP episodes, it's important to note that not all hospital admissions qualify as index admissions. Hospital admissions that are not considered as index admissions to start a CEBP episode include instances when claims data have coding errors, including a missing date of birth or death dates that proceed the index admission; or the index admission claim has zero dollar payment amounts; when there are transfers between acute care hospitals; when admissions occur to hospitals that Medicare does not reimburse through the inpatient prospective payment system, for example, critical access hospitals and admissions that have discharge dates that are fewer than 30 days prior to the end of the yearly performance period, which is December 31st.

The presence of specific medical codes on claims will trigger a CEBP episode and CEBP measures are classified into episode types and clinical subtypes. Episode types are defined by the presence of complications or comorbidities, for example, major complications or comorbidities (MCCs). Clinical subtypes are defined by the presence of ICD-10 diagnosis codes for condition episodes or current procedural terminology, CPTs, for procedural episodes during the triggering inpatient hospitalization and/or Physician Part B claims associated with triggering inpatient hospitalization. Let me restart that. So, we're starting at 18. The presence of specific medical codes on claims will trigger a CEBP episode and CEBP measures are classified into episode types and clinical subtypes. Episode types are defined by the presence of complications or comorbidities, for example, major complications or comorbidities, MCCs. Clinical subtypes are defined by the presence of ICD-10 diagnosis codes for condition episodes or current procedural terminology, CPTs, for procedural episodes during the triggering inpatient hospitalization or on Physician Part B claims associated with the triggering inpatient hospitalization.

For example, a cellulitis episode could have an episode type of cellulitis with major complications and comorbidities, but cellulitis without major complications and comorbidities. These episode types may further be broken down into clinical subtypes, which would include cellulitis as a complication of diabetes, cellulitis as a complication of decubitus pressure ulcers, or cellulitis in all other patients. A division of measures into types and subtypes allows for a more accurate comparison of the observed-to-expected cost for beneficiaries with a similar clinical picture.

I mentioned earlier clinically related services are grouped to an episode by applying grouping rules. Grouping rules identify and aggregate clinically related services by two categories of medical care: one, treatment services that encompass a medical care occurring during a hospital stay and clinically belated services beginning three days prior to the hospital stay, and two, clinically related post-discharge services that include routine follow-up, as well as services after discharge that are linked to the

occurrence of adverse outcomes fully or partially attributable to care while in the hospital.

A CEBP measure score is the CEBP amount divided by the national episode weighted median CEBP amount for a given measure. The CEBP amount is the average ratio of each episode standardized episode payment over its expected episode payment, multiplied by the national average observed episode payment amount.

CEBP measures that are less than one indicate that a given hospital spends less than a national episode weighted median CEBP amount during a given performance period. A lower measure score year-to-year can be described as an improvement in relative position as compared to that year's national episode weighted median for a given measure. We do want to take a moment to point out that CEBP measure scores alone do not necessarily reflect the quality of care provided by hospitals. The CEBP measures are most meaningful when presented in the context of other quality measures to provide a more comprehensive assessment of hospital performance.

Now that we have gone over CEBP terms and how to interpret the CEBP measures, this slide will discuss what populations are included and excluded when calculating a hospital CEBP measure. Beneficiaries included are those who are involved in Medicare Parts A and B from 90 days prior to the episode through the end of the episode and those who are admitted to sub-section (d) hospitals. Beneficiaries that are excluded are those enrolled in Medicare Advantage during the episode, those who have Medicare as a secondary payer 90 days prior to the episode through the end of the episode, or those who died during the episode.

The next part of this presentation will focus on the steps to calculate hospital CEBP measures.

There are eight steps we will walk through over the next set of slides. The first step is to standardize claim payments so that spending can be compared across the country. The second step is to calculate the

standardized episode spending for all episodes of a given condition or procedure in the hospital. The third step is to estimate the predicted episode spending using linear regression. Next, all extreme values produced in step 3 are Winsorized or bottom coded. The fifth step is to calculate residuals for each episode from step 3 so that we can identify outlier payments. Then in step 6, the outlier payments are excluded. In step 7, we calculate the hospital-level risk-adjusted payments, which is a CEBP amount for each hospital. Finally, in step 8, we calculate the CEBP measure for hospital based on the CEBP amounts.

In the first step, claims payments are standardized to adjust for geographic differences and payments from special Medicare programs that are not related to resource use, such as hospitals graduate medical education fund for training residents. However, payment standardization maintains differences that result from healthcare delivery choices such as the setting or the services provided, the type of provider, for example, a nurse practitioner versus a physician, the number of services provided in the same visit, and outlier cases. For more information and the full methodology that's used in calculating standardized payments, you can refer to the CMS Price Standardization Documents on the *QualityNet* web page listed on this slide.

In the second step, all standardized Medicare Part A and Part B claim payments for clinically rated services are summed within that CEBP episode. This includes patient deductibles and co-insurance. Claims are grouped based on the from date variable. The inclusion of claims based on the from date variable is based on the first day of the billing statement covering services rendered to the beneficiary. Inpatient claims are based on submission date. We often get questions about post-acute care services that extend beyond 30 days after the hospital discharge. All post-acute care services that have a claim from date within the 30-day hospital discharge period will be included if clinically related to the episode in question.

For example, if a patient is admitted to an eligible hospital, which triggered a CEBP episode, and then this patient receives clinically related

home health services beginning within the 30-day post-discharge period under the episode, the CEBP amount will include these home health services even if the duration extends beyond the 30-day post-discharge period. The CEBP measure calculation does not prorate spending.

The third step is to calculate the expected episode spending amount. In this step, the episode spending amount is adjusted for age and severity of illness, specifically to account for variation in patient clinical complexity. The linear regression is used to estimate the relationship between number of risk adjustment variables and the standardized episode cost calculated in step 2. Risk adjustment variables include factors such as age, severity of illness, and co-morbidity interactions. Severity of illness is measured using a number of indicators including hierarchal condition categories or HCC indicators. HCC indicators are specified in the HCC 2016 Version 22 model, which accounts for the inclusion of ICD-10. Additional independent variables are included depending on the type of condition or procedure measure. Full details about these linear regressions can be found on the *QualityNet* web page list on this slide. Separate regression models are run for each clinical subtype.

In the fourth step, extremely low values for expected episode spending are Winsor summarized. In the regression model in step 3, a large number of variables are included to more accurately capture patient clinical complexity. A risk of using a large number of variables is that the regression can produce extreme predictive values due to having only a few outlier episodes in a given cell. For each clinical subtype, episodes that fall below the 0.5 percentile of the episode expected cost distribution are identified. Next, the expected spending of those extremely low spending episodes are set to a 0.5 percentile threshold. Lastly, the expected spending scores are renormalized to ensure that the average expected episode spending level for an episode based on a clinical subtype is the same before and after Winsorizing.

In the fifth step, we calculate the residual for each episode's identified outliers. The residual is calculated as the difference between the standardized episode spending, which is calculated in step 2, and the

Winsorized expected episode spending, which is calculated in step 4. In the sixth step, these statistical outlier episodes based on outlier clinical subtype are identified and then are excluded to mitigate the effect of high spending and low spending outliers for a given CEBP measure. High-spending outliers are identified when the residual falls above the 99th percentile of the residual distribution. Low-spending outliers are identified when the residual falls below the first percentile. This last step also renormalizes the expected spending of an episode to ensure that the average expected spending is the same as the average standardized spending after outlier exclusions.

In the seventh step, the risk adjusted CEBP amount is first calculated as an average ratio of the hospital standardized payments from step 2 to its renormalized expected payments from step 6 across the hospital CEBP episodes. This average ratio is then multiplied by the national average standardized episode payment to convert this ratio to a dollar amount.

In the eighth step, the CEBP measure for a given condition or procedure is then calculated as a ratio of the risk-adjusted CEBP amount for the hospital as calculated in step 7, and the National Episode Weighted Median CEBP amount for that condition or procedure.

Now, that we've gone over each of the steps to calculate the CEBP measures, the next slides will walk through the calculation of the cellulitis CEBP measure for an example hospital.

We previously described how condition and procedure measures have different episode types and clinical subtypes. However, CEBP measures follow similar calculation steps. To illustrate how CEBP measures are calculated, we will use the example of conditions measure cellulitis. The episode type for cellulitis includes cellulitis with major complications or comorbidities, or MCC, and cellulitis without MCCs. Clinical subtypes within each episode type include cellulitis as a complication of diabetes, cellulitis as a complication of decubitus pressure ulcers, and cellulitis for all other patients, which is reflected by the absence of ICD-10 diagnoses codes for diabetes and decubitus pressure ulcers.

In this example, hospital A has 30 cellulitis episodes, ranging from $8,000 to $11,000 in standardized episode spending. After applying steps 1 through 4 of the calculations, we see that the hospital has one episode with a residual higher than the 99th percentile, which we registered in step 6. As a reminder, the residual was calculated as the difference between a standardized episode spending from step 2 and the Winsorized expected episode spending from step 4, which, in this example, was $500. This episode, which has a residual higher than the 99th percentile, has been excluded in step 6. The CEBP amount and the CEBP measure will then be calculated based on the remaining 29 episodes for Hospital A.

In step 7, the CEBP amount for Hospital A is calculated as the average of the ratios of each episode standardized payment to its renormalized expected payment. Next, this average ratio is multiplied by the average standardized episode payment across all hospitals to convert the CEBP amount to a dollar amount. In this particular example, for Hospital A, the average of the ratios across episodes is 0.899. The average standardized episode cost for cellulitis across all hospitals is $9,260.25, then multiplying it to this average ratio for this hospital yields a CEBP amount of $8,324.96 for Hospital A. In the next slide, we will walk through a more specific example calculation of the CEBP cellulitis amount for Hospital A.

To simplify calculation in step 7 in the previous slide, let's assume that Hospital A had only six cellulitis episodes during the performance period. Each cellulitis episode in this particular example is either with or without MCCs, shown as either gold or light blue, and either a complication of diabetes or decubitus pressure ulcer. Each episode has a standardized payment and expected payment depending on whether it is with a major complication comorbidity and whether it is a complication of diabetes or decubitus pressure ulcer. For example, episode 1 is cellulitis without an MCC and is a complication of diabetes. Its standardized payment is $8,404 and its expected risk adjustment payment is $8,569. Dividing the standardized payment by the expected payment for episode one yields a ratio of 0.981. To calculate the cellulitis CEBP amount across these six

episodes, we add these ratios of standardized expected payments (to expected payments) across episodes. This gives us a total ratio of 5.393. We then obtain the average ratio, seen in the first bolded calculation at the bottom of the slide, by dividing the total ratio by the number of episodes at this hospital, for an average ratio of 0.899, then, multiplying the average ratio of standardized payments to expected payment for Hospital A by the national average standardized episode amount of \$9,260.25, we obtain the cellulitis CEBP amount of \$8,324.96 for Hospital A.

Finally, in step 8, the cellulitis CEBP measure for Hospital A is calculated as the ratio of the CEBP amount, which we calculated in the previous slide, divided by the national episode rated median CEBP amount for cellulitis. Let's assume that the national episode rated median amount for cellulitis is \$9,382.23. As a result, our example hospital would then have a cellulitis CEBP measure of 0.887, or 0.89 when rounded. Over the next few slides of this presentation, I will provide an overview of the CEBP hospital-specific reports and supplemental files that each eligible hospital receives.

Next slide. The CEBP hospital-specific reports or HSRs include six tables and three supplemental hospital-specific data files. The tables include CEBP measures for the individual hospital, as well as results for hospitals in the state and the nation. The supplemental hospital-specific data files contain information on the hospital admissions that were considered for the individual hospital CEBP measures, as well as other data on Medicare payments to individual hospitals and other providers that were included in the calculation of the CEBP measures. The tables we display over the next few slides contain data for illustrative purposes.

Table 1, which is included in each hospital's HSR, displays the hospital CEBP measure for each of the three conditions.

In table 2, we see the number of eligible admissions and the CEBP amount for each of the conditions for a given hospital. This table also provides the hospital's average, stage average, and U.S. national average CEBP amount for each position.

Table 3 displays the major components used to calculate a hospital CEBP measure for each condition. It includes data, such as the number of eligible admissions, CEBP amounts, and the episode weighted national median CEBP amount for each condition. For the sake of space, we're only presenting the top half of table 3, but this table also includes information on GI hemorrhage and kidney/UTI measures.

Table 4 displays the national distributions of the conditions CEBP measures across all hospitals in the nation and figure 1 shows that in graphical form for each of the conditions. Table 5 provides a detailed breakdown of a given hospital spending by category or medical care in terms of when an episode clinically related services are grouped for each condition. Table 5 includes all three condition measures, but for the sake of space, we are only showing the top of table 5 that displays information for cellulitis. Spending levels are then broken down by claim type within the treatment services and clinically related post-discharge services period. Hospitals can compare the percent of total average spending by claim type period to the total average spending in hospitals in their state and in the nation. The cost included in table 5 are the average actual standardized episode spending amounts. These spending amounts are not risk adjusted for patient clinical complexity because risk adjustment is performed at the clinical subtype level.

In this example, this hospital has an average claim standardized spending amount of $129.91 on outpatient services beginning in the clinically related post-discharge window. This dollar amount is 2 percent of episode spending for the hospital for clinically related post-discharge services. Looking at the same excerpt on table 5, we can also compare that percent of total average spending in the hospital to that of the percent spending at state and national levels. The red box highlights the comparison we can make for the percent of spending on outpatient services for clinically related post-discharge services. For example, a lower percent of spending in the hospital than the percent of spending in the state or in the nation means that, for a given condition within a given grouping period and claim

type, the hospital spends less than the other hospitals in the state and the nation respectively.

Table 6 provides a breakdown of averages and expected spending by episode type and clinical subtype for each condition. Hospitals can compare average and expected spending amounts to the state and national average and expected spending amounts by clinical subtype.

In this example, we have highlighted spending for cellulitis with and without MCC as a complication of diabetes and can see the differences in average spending and average expected spending per episode by episode type and clinical subtype combination. Table 6 lists information for all three conditions, but we're only displaying the top part of the table on this slide for illustrative purposes.

On this same table, you can further use column C through F to compare spending level of the hospital to the spending level in the state and in the nation. For example, if the individual hospital has a lower value in column B than in column F, its patients have a lower expected spending level than the nation for a specific conditions episode type and clinical subtype combination.

In addition to receiving a CEBP HSR, each eligible hospital receives three supplemental hospital-specific data files. There is the index admission file, beneficiary risk profile, and a CEBP episode file. In the index submission file, you'll see all the inpatient admission for the hospital in which a beneficiary was discharged during the performance period or for which this year's report would be based on 2016 data. The beneficiary risk profiles identify beneficiaries and their health status based on the beneficiary's claims history 90 days prior to the start of an episode. In this file, you'll see data that was used in the risk adjustment model. In the CEBP episode file, you'll see the type of care and spending amount and the top five billing providers in each care setting for each CEBP episode at your hospital.

Hospitals may submit questions about CEBP calculations or their HSR to cmscebpmeasures@econometricainc.com. For report re-upload requests and calculation questions, please include your hospital CMS certification number, or CCN, so that we may easily analyze your hospital's questions against the data we sent. In addition, if you have a question that we do not get to today during the call, please feel free to email us at the same address listed on this slide. As with other claims-based measures, hospitals may not submit additional corrections to underlying claims data and they may not submit new claims to be added to the calculations. Additional information about CEBP measures, including more detailed measure specification documentation, reviewing rule documentation, frequently asked questions, mock HSR, and a description of data files for HSRs can be found on the *QualityNet* website listed on this slide. Finally, for any issues downloading the reports, please refer to the *QualityNet* Help Desk at qnetreport@hcqis.org.

Over this call, we went through quite a bit, including the goals of the CEBP measures, steps involved in calculating the CEBP measures, HSR contents, hospital-specific supplementary data files, and informational resources that are available online. I hope you found this presentation helpful to better understand the CEBP measures. We do have some time for some questions and I'll turn this to my colleagues to field some of these questions that have gone through the chat.

Sri Nagavarapu: Hi, everyone this is Sri Nagavarapu from Acumen and our team will be fielding some of the questions that you all have sent in through the chat. For questions that we're not able to get to here or reply to you directly about, we'll have a transcript of those questions and we'll be able to follow-up down the road. So, the first question that I'll read here is, "Does the patient population include encounters that did not meet the two midnight criteria, intended inpatient, but filled as outpatient?" The measures only include admissions to IPPS hospitals that are billed on IP claims under the given trigger rules. If they're billed on an OP basis, then they would not be able to trigger an episode.

Next, there's a question asking, "Since claims are based on a DRG, how do they determine what care during the inpatient admission is considered to be unrelated to a condition? In other words, how is the separation between filled and unfilled triangles determined?" That's a great question. The easiest way to think about the components of the measure is that there are two types of services being distinguished, treatment services, which are for the initial treatment of the condition. These include the services during an inpatient stay, as well as pre-trigger, such as diagnostics related to the inpatient stay. Then, the second category are clinically related post-discharge services. These are services that could include routine follow-up care after discharge, as well as complications, such as manifested through readmissions to inpatient facilities. For treatment services, all cost of Part A claims during the inpatient stay are included in the measure as treatment services and treatment services also include the standardized allowed amounts of Part B physician supplier claims during the inpatient stay. For pre-trigger services and clinically related post-discharge services, our clinicians and externally contracted clinicians have done an extensive review of services occurring in these time periods in order to determine clinical relatedness and unrelatedness. The way this review worked is we gathered clinicians with expertise in the given areas. So for example, for the GI hemorrhage episode, we had gastroenterology and colorectal experts. For the kidney/UTI episode, we had general medical and surgical practitioners, as well as nephrologists. For cellulitis, we had general practitioners in medical and surgical specialties. What we did was construct these episodes, bring up the services occurring during the episodes, along with a diagnoses in front of the clinical experts. The clinical experts reviewed the services and determined according to a series of rules, that are spelled out in detail on the methodology document, whether those services are likely to be clinically related and able to be influenced by the hospital assigned the trigger admission and attributed the measure. So, the clinicians reviewed these services, determined whether services were clinically related or unrelated, and only the standardized allowed amounts associated with the related admissions were counted in the cost that are represented in clinically related post-discharge services and pre-trigger services.

I'll move to the next question here. "For acute-to-acute transfers, are the patients excluded from their receiving hospital, as well as from the sending hospital?" Yes, if there is an acute-to-acute transfer, then that episode would not trigger an episode for the purposes of CEBP measure. Neither the receiving hospital nor the sending hospital are assigned an episode for the CEBP measure in this case. The next question is in the CEBP spending breakdown under the "clinically related post-discharge services," "What does the category inpatient cover?" So this category covers any inpatient claims that occur in the post-discharge period. These could be IP readmissions that are clinically related according to the process that I described earlier and the clinically related determination could be made based on just the DRG, or in cases where clinical experts felt that the DRG by itself wasn't sufficient, the DRG in combination with particular diagnoses. The inpatient admissions here could be of a wide array of possibilities, but depending on the grouping rules for the specific clinical episode, and you can find those grouping rules on the documentation online. The next question, "Why are Medicare Advantage patients excluded?" So this has to do with a beta limitation. So the measure excludes beneficiaries enrolled in Medicare Advantage during an episode to ensure that a complete picture of resource use can be accounted for through the duration of an episode. The way to get a complete picture of resource use for Medicare Advantage payments would involve the use of validated encounter data and, at this time, the measure is not using encounter data due to differences in the way data is reported in encounter data versus fee-for-service.

The next question is regarding slide 18. "To clarify, if a case has a subtype ICD-10 code, but not a DRG for cellulitis, this is considered a trigger event. If so, is this a primary or secondary ICD-10 diagnosis code?" The answer to the question is no. The subtype ICD-10 codes that the questioner refers to would not be sufficient to trigger a CEBP episode for cellulitis. It would need to occur with a trigger DRG listed in the methodological documentation.

The next question is, "Are CEBPs defined by MSDRGs?" This is a related question about the opening or triggering of CEBP episodes. All CEBP episodes are triggered by an MSDRG found on an inpatient claim. In addition, there are identification of clinical subtypes that can happen through the presence of ICD-10 diagnosis codes or through the presence of CPT HCPCS codes and it is also possible for the procedural episodes, which weren't the focus of this year's informational reporting, for the procedural episodes to have complementary trigger rules that depends on CPT codes on Part B claims. But MSDRGs underlie the triggering of all CEBP episodes. The next question is, "Where do we find our hospital-specific payment amount for the conditions and procedures? Do we just add an average?" If you're asking for the payment amount for your specific inpatient stay at your hospital, just for the triggering inpatient stay, the way to find that is to look for average spending per episode in table 5 of the HSR and it will be listed under the treatment section under the inpatient row. The information is also available in the supplementary CSV files that are provided as an accompaniment to the HSRs. If you're asking about the payment amounts across all claims that are grouped to the episodes, including not only the triggering inpatient stay, or what we also refer to as the index inpatient stay that starts the episode, but also claims in the pre-trigger period of three days or the post-discharge period of 30 days. If you're interested in that amount, the average episode payment amount is in table 3 in the HSRs. The next question is, "Is CEBP a claims-based measure?" The answer there is yes. The measure is based fully on claims and no registry information is included. Now, I'm compiling a few other questions on our end here and please continue to send them over.

There's a question in the transition from slide 44 to slide 45. "There was a comment about an aspect that is not risk adjusted. Please explain in more depth." There are lines in the HSRs that show breakdowns of episode spending by various service settings in order to provide more information about the measure. In cases where those sorts of breakdowns are provided, spending is not risk adjusted. However, the measure is risk

adjusted and so it's important to keep in mind that distinction that in every case when looking at the final measure, that measure is risk adjusted.

The next question here. "If my HSR for cellulitis/diabetes, has no data, does that mean that we had no cellulitis patients with the diabetes code also?" That's correct. Your hospital did not have any episodes for that subtype, though it's important to keep in mind that the exclusion criteria that Dave had talked about and that are in the methodology documents have been applied. So, for instance, if you had a Medicare Advantage patient for cellulitis with diabetes, that patient and the episode would not be included in the measure and so your HSR for cellulitis diabetes would have no data there. The next question is, "A patient may come into the hospital with one primary condition. However, during evaluation, additional problems are often diagnosed, present on admission. The condition may not be clinically related to the primary condition, but perhaps clinically related to one of the additional diagnoses. Does this methodology take into account all conditions clinically related to any diagnosis present on admission or only the primary diagnosis?" This is a great question and it gets back to the underlying methodology here in assigning clinically related services. In assigning clinically related services, the clinical experts are examining the attributed hospitals inpatient stay and trying to determine what services are reasonably under the influence or affected by the attributed hospital's treatment during that inpatient stay. So, if there are conditions that are comorbidities that are present on admission, as the questioner asked, and those are conditions that are not directly a part of the inpatient stay and not necessarily under the influence of the hospital, they would not be used to assign clinically related services in the pre-trigger, post-discharge period. This is to ensure that the episode spending does not include services that are part of comorbidities that the hospital is not accountable for treating for that specific DRG. So the focus is on assigning services, grouping services to the episode, that are clinically related to the specific DRG and episode type that we're looking at in the measure. At the same time, the comorbidities will be accounted for in risk adjustment to the extent that they show up in the 90-day look-back period. So, if those show up in the

90-day look-back period, they will be risk adjusted forward to ensure that hospitals are not penalized for complex patients. All right, I think that is the last question that we have time for here. As I said, we'll be following up after we receive the Q&A transcript to see whether there are additional questions that we can cover and we will follow-up with answers on those. Thanks very much for taking the time to send in these detailed questions. I hope it's been informative to walk through this. The methodology documentation posted on *QualityNet* will be quite helpful for answering more details about some of the questions that you've asked. Thanks very much.

Candace Jackson: Thank you and this concludes the webinar for today. I would just like to announce that this webinar has been approved for one CEU and that you can review the CEU slides in the presentation and if you have any questions you can send those to us. Again, I'd like to thank our speakers for today and for all of you who participated in today's event. This concludes our presentation and we hope that you have a great afternoon. Thank you.