BPCI Advanced CQS Webcast Script

Slide	Topic	Script
1	**Title Slide**	Hello. My name is Dr. Mark Reardon, a physician on the CMS Innovation Center Medical Officer Team, driving innovation in quality on both the Bundled Payments for Care Improvement Advanced (BPCI Advanced) team and across the Innovation Center. I welcome you to the BPCI Advanced Composite Quality Score webcast. We hope you find it informative.
2	**Objectives of the Webcast**	Quality Measures evaluation in BPCI Advanced encompasses three topics. The first is the Quality Methodology, which is the relationship between Clinical Episodes and the Quality Measures, understanding how Clinical Episodes are attributed, and understanding the Quality Measure data submission sources. The second is the Composite Quality Score, or CQS, which involves understanding how CMS calculates the CQS for Acute Care Hospitals, or ACHs, and Physician Group Practices, or PGPs, as well as how CMS aggregates Quality Measures data and incorporates Clinical Episode volumes. The third is the Reconciliation process, which involves understanding how Quality Measures and the CQS impact Reconciliation in Fall 2020. This webcast covers the second topic, the CQS. Now I'd like to introduce my colleague, Dr. Beth Chalick-Kaplan, a Nurse Practitioner on the BPCI Advanced Model Team to describe the CQS in detail.
3	**Comparing Quality Measure Performance**	Thank you Mark. The CQS is one component of the payment reconciliation process and is calculated from the Quality Measures. One of its primary purposes is to create a comparative assessment for performance across Clinical Episodes and Episode Initiators. This is because BPCI Advanced includes many conditions, and not all Quality Measures apply to all Clinical Episodes.

4	**Calculating the CQS**	Let's dive in. When we describe how CMS aggregates the Quality Measures data to calculate the CQS, it's important to note that there is one process for ACHs and one process for PGPs. For ACHs, there are two steps involved. First, CMS scales the ACH's Quality Measures. Then, those scaled results are volume weighted to determine the CQS. For PGPs, there are three steps involved. **First**, CMS scales the Episode Initiator level Quality Measures. **Then**, CMS scales and weights the Hospital level Quality Measures. **Finally**, those scaled results are volume weighted to determine the CQS. Notice that, while the number of steps differs, both ACHs and PGPs follow the same concept, where CMS first scales the results, then volume weights them. The difference is that CMS breaks out the scaling for PGPs into two parts.
5	**Calculating the CQS: ACH Step 1**	First we'll walk through the ACH process, followed by that for the PGP. Notice the graphic in the bottom left hand corner of the slide, which we will use for process and step reference throughout this webcast. Let's start with Step One, scaling the Quality Measures.
6	**ACH Step 1: Example Profile**	In this slide, we've created a profile for Smith Hospital, which is participating in BPCI Advanced for the Acute Myocardial Infarction (known as AMI) and Pacemaker Clinical Episodes. **Specifically**, Smith Hospital had 400 beneficiaries at their hospital who had an AMI, and 250 beneficiaries at their hospital who had a Pacemaker inserted at the end of Performance Period 1. Based on the AMI and Pacemaker Clinical Episodes, both in-patient episodes, there are four applicable Quality Measures: • Advance Care Plan • Hospital-Wide All-Cause Unplanned Readmissions • CMS Patient Safety Indicator 90 (CMS PSI 90), and • Excess Days in Acute Care after Hospitalization for Acute Myocardial Infarction (AMI)

		Now that we have established Smith Hospital's profile, let's see how CMS calculates the Quality Measures.
7	**ACH Step 1: Types of Quality Measures (Part 1)**	For Smith Hospital, CMS calculates each Quality Measure at either the Episode Initiator level or at the Hospital level. CMS calculates the Hospital level Quality Measures using all Medicare beneficiaries at the hospital; CMS does not limit them to BPCI Advanced Beneficiaries or to the Clinical Episode. CMS calculates the Episode Initiator level Quality Measures using only BPCI Advanced Beneficiaries' relevant Clinical Episodes for which the Quality Measure applies. In the table, you can see that CMS calculates the Advance Care Plan Quality Measure at the Episode Initiator level and calculates the other Quality Measures at the Hospital level.
8	**ACH Step 1: Types of Quality Measures (Part 2)**	Let's talk a bit more about who CMS includes in each level. CMS calculates the Hospital level Quality Measures more broadly than the Episode Initiator level Quality Measures. On the left side of the diagram, the Hospital level graphic depicts Medicare beneficiaries who received care at Smith Hospital. CMS includes all of these individuals in the Hospital level calculation. On the right side of the diagram, the Episode Initiator level graphic depicts a smaller number of beneficiaries who were in BPCI Advanced Clinical Episodes at Smith Hospital and CMS therefore includes them in the Episode Initiator level calculation. For more detailed information, please refer to the Quality Measure Fact Sheets on the BPCI Advanced website.
9	**ACH Step 1: Raw Quality Measures Scores**	Going back to our table of Quality Measures, CMS calculates a raw score for each Quality Measure based upon the two types of populations. In this scenario, let's imagine that Smith Hospital received a 77% raw score for the Advance Care Plan Quality Measure.

		Since CMS calculates the Advance Care Plan Quality Measure at the Episode **Initiator** level, we know that this raw score means that 77% of eligible BPCI Advanced Clinical Episodes at Smith Hospital had documentation of an Advance Care Plan, **or** had documentation that a provider **discussed** advance care planning, but the beneficiary did not want to, or was unable to provide an ACP. In comparison, since CMS calculates the All-Cause Readmissions Quality Measure at the Hospital level, we know that this raw score means that 15% of all inpatient stays at Smith Hospital represented unplanned readmissions, regardless of whether the beneficiaries were in a BPCI Advanced Clinical Episode. Notice the raw scores are in various units. How can we compare these when the scales are so different?
10	**ACH Step 1: Scaling Quality Measure Results (Part 1)**	In order to make the Quality Measures an apples-to-apples comparison, CMS determines the hospital's raw score percentile relative to their cohort in the baseline period for each quality measure. This percentile is called the scaled score. Using a percentile addresses the issue with mis-matched units, because CMS can convert all scores to the same scale from zero to 100. It's important to note the quality measures have different baseline periods and the phrase quality measure baseline period does not relate to the baseline periods used in the model for the creation of target prices. To provide an example of how a percentile addresses the issue with mis-matched units, let's consider the Advance Care Plan Quality Measure at Smith Hospital. Smith Hospital received a raw score of 77%. Once CMS compares Smith Hospital to its cohort in the baseline, CMS finds that Smith Hospital's raw score would have been in the 60th percentile. Therefore, Smith Hospital's scaled score is 60.
11	**ACH Step 1: Scaling Quality Measure Results (Part 2)**	You may be wondering, who is the cohort and what is the baseline period to which a hospital is compared for the percentile? A hospital's cohort for the scaled score will either be at the national level or at the Model level, depending on the Quality Measure.

		As you can see in the graphic on the left, if CMS calculates the Quality Measure at the Hospital level, then the cohort comparison will be at the national level. This means all ACHs nationwide where this Quality Measure applies. As you can see in the graphic on the right, if CMS calculates the Quality Measure at the Episode Initiator level, then the cohort comparison will be narrower, at the BPCI Advanced Model level. This means all Participating Episode Initiators in BPCI Advanced. Note that for the national level, the baseline period is always Calendar Year 2018. For the Model level, the baseline period currently includes episodes with anchor end dates in Quarter 3 2019 approximately. The Model level baseline period will be rolled forward for Model Year 3.
12	**ACH Step 1: Scaling Quality Measure Results (Part 3)**	We have now completed our table, which shows both the raw and scaled scores for each Quality Measure in Smith Hospital. Notice that the scaled scores are consistent in units. We can now read this table to say that Smith Hospital was in the 60th percentile for Advance Care Plan, the 50th percentile for All-Cause Readmissions, the 40th percentile for CMS PSI 90, and the 60th percentile for Excess Days in Acute Care for AMI.
13	**Calculating the CQS: ACH Step 2**	This completes Step One of the CQS process for ACHs. Now let's move to Step Two, volume weighting the scaled scores to determine the CQS.
14	**ACH Step 2: Clinical Episode Volumes**	Step Two starts by bringing in the Clinical Episode volumes. CMS calculates the number of attributed Clinical Episodes for Smith Hospital. Remember, our initial profile of Smith Hospital mentioned that Smith Hospital is participating in the AMI and Pacemaker Clinical Episodes, and ended Performance Period 1 with 400 AMI and 250 Pacemaker Clinical Episodes. This table shows how each Quality Measure will account for a total number of related Clinical Episodes that apply to each Quality Measure. Notice how the first three rows have 650 total applicable

		Clinical Episodes, the 400 AMI Clinical Episodes plus the 250 Pacemaker Clinical Episodes. However, notice that the Excess Acute Days for AMI Quality Measure only has 400 total applicable Clinical Episodes. We marked the number of Pacemaker Episodes "N/A" ("not applicable") because the Excess Acute Days for AMI Quality Measure does not apply to the Pacemaker episode.
15	**ACH Step 2: Weighting Clinical Episode Volumes**	Next, CMS calculates a normalized weight for each Quality Measure, based upon the volume of triggered Clinical Episodes. This is so that CMS gives more weight to Quality Measures that apply to more triggered Clinical Episodes accordingly. We've provided a sample calculation showing that the Advance Care Plan Quality Measure is more heavily weighted than the Excess Acute Days for AMI Quality Measure, because it is relevant to more triggered Clinical Episodes than the Excess Acute Days for AMI Quality Measure.
16	**ACH Step 2: Volume weighting to get the CQS (Part 1)**	We now have two sets of standardized numbers. The first is the scaled score, which represents the standardized Quality Measure results. The second is the normalized weight, which represents the standardized Clinical Episode volumes. CMS then does a weighted average calculation: CMS multiplies each scaled score by its normalized weight and then adds these weighted scores together to get the CQS. On the slide, we can see the calculation for Smith Hospital is the sum of 16.8, 14, 11.2, and 9.6. This equals 51.6, which is the CQS for Smith Hospital. This concludes our walkthrough of the CQS for ACHs. Next, we'll present the calculation of the CQS for PGPs.
17	**Calculating the CQS**	As a reminder, calculating the CQS is a three-step process for PGPs.
18	**Calculating the CQS: PGP Step 1**	Let's begin with Step One, scaling the Episode Initiator level Quality Measures.
19	**PGP Step 1: Example Profile**	In this slide, we've created a profile for Lakeside PGP, whose physicians practice at both Smith Hospital and Johnson Hospital. Lakeside PGP is participating in BPCI Advanced for two in-patient clinical episodes: Major Joint Replacement of the Lower Extremity,

		or MJRLE, as well as the Chronic Obstructive Pulmonary Disease (COPD), bronchitis, asthma, Clinical Episode. Between the hospitals, Lakeside PGP had 600 Clinical Episodes at Smith Hospital and 200 Clinical Episodes at Johnson Hospital, for a total of 800 Clinical Episodes at the end Performance Period 1. These 800 Clinical Episodes are split into 300 MJRLEs and 500 COPD attributed Clinical Episodes. Based on the MJRLE and COPD Clinical Episodes, there are five applicable Quality Measures: • Advance Care Plan • Hospital-Wide All-Cause Unplanned Readmissions • Perioperative Care: Selection of Prophylactic Antibiotic 1st or 2nd Generation Cephalosporin • Hospital-level Risk-Standardized Complication Rate (RSCR) following elective Total Hip Arthroplasty (known as THA), or Total Knee Arthroplasty (known as TKA), and • CMS PSI 90 Now that we have established Lakeside PGP's profile, let's see what happens to the Quality Measures.
20	**PGP Step 1: Scaling Episode Initiator Level Quality Measures**	For Lakeside PGP, CMS calculates the raw and scaled scores for the Episode Initiator level Quality Measures, pooling together Clinical Episodes from Smith and Johnson Hospitals. From our five applicable Quality Measures, only Advance Care Plan and Perioperative Care are Episode Initiator level Quality Measures. As explained before, CMS calculates the raw scores for these Quality Measures. These scores will be specific to Lakeside PGP. CMS will then determine Lakeside PGP's percentile compared to all other BPCI Advanced Episode Initiators. **Therefore**, if we look at the Advance Care Plan Quality Measure, 80% of Lakeside PGP's Clinical Episodes from both Smith Hospital and Johnson Hospital had documentation of an Advance Care Plan, or had a provider discuss advanced care planning with then but the beneficiary did not want to or was unable to provide one. This is the raw score.

		With this raw score, Lakeside PGP is in the 85th percentile compared to all other BPCI Advanced Episode Initiators. Hence they receive a scaled score of 85.
21	**Calculating the CQS: PGP Step 2**	Step Two is for CMS to scale and weight the Hospital level Quality Measures.
22	**PGP Step 2: Scaling Hospital level Quality Measures (Part 1)**	CMS calculates a scaled score for the Hospital level Quality Measures for each ACH: Smith and Johnson Hospitals. On this slide, we list the two hospitals and their Hospital level Quality Measures. If we use the All-Cause Readmissions Quality Measure as an example, Smith Hospital had a raw score of 12 percent, which means the hospital had a 12 percent readmission rate. This places it in the 85th percentile nationwide, so the scaled score is 85. Meanwhile, Johnson Hospital had a raw score of 18 percent, which means the hospital had an 18 percent readmission rate. This places it in the 75th percentile nationwide, so the scaled score is 75.
23	**PGP Step 2: Scaling Hospital level Quality Measures (Part 2)**	Now, let's bring in the volume of Clinical Episodes to account for Lakeside PGP practicing at different locations. Lakeside PGP's physicians practice at both Smith and Johnson Hospitals and triggered a total of 800 Clinical Episodes. Since 600 Clinical Episodes were triggered at Smith Hospital, compared to 200 Clinical Episodes at Johnson Hospital, Smith Hospital should be weighted more heavily. In the next slide, we'll look at the weighting calculation.
24	**PGP Step 2: Scaling Hospital level Quality Measures (Part 3)**	CMS weights the scaled score for each Hospital level Quality Measure to account for the volume of Clinical Episodes at each ACH. Let's focus on the All-Cause Readmissions Quality Measure **first** for a closer look. In the blue columns of the table, we have Smith Hospital's details: Smith Hospital had 600 Clinical Episodes attributed to Lakeside PGP, and Smith Hospital's scaled score for the All-Cause Readmissions Quality Measure was 85.

		In the darker gray columns of the table, we have Johnson Hospital's details: Johnson Hospital had 200 Clinical Episodes attributed to Lakeside PGP, and Johnson Hospital's scaled score for the All-Cause Readmissions Quality Measure was 75. The sample calculation shows how CMS weights those values to get the scaled and weighted quality score of 82.5. Now that we have walked through one Quality Measure in detail, let's see how CMS does the same for the remaining Quality Measures.
25	**Example PGP Step 2: Scaling Hospital level Quality Measures (Part 4)**	This slide shows the complete table for the remaining Hospital level Quality Measures for Lakeside PGP. This includes the scaled and weighted quality scores for the CMS PSI 90 and the THA/TKA Quality Measures.
26	**Calculating the CQS: PGP Step 3**	We just finished Steps One and Two of the CQS process for PGPs. We now move on to Step Three, which is volume weighting the scaled results to determine the CQS.
27	**PGP Step 3: Clinical Episode Volumes**	Similar to the volume weighting calculation for the ACH process, Step Three starts by bringing in the Clinical Episode volumes. CMS calculates the number of attributed Clinical Episodes that are relevant for each Quality Measure. This table shows how each Quality Measure will have a total number of related Clinical Episodes. Notice how some of the Quality Measures have 800 total applicable Clinical Episodes, which is the 300 MJRLE plus the 500 COPD Clinical Episodes. **However**, the Perioperative Care and THA/TKA Quality Measures only have 300 total applicable Clinical Episodes. This is because CMS only uses these Quality Measures in the MJRLE Clinical Episode, resulting in "N/A" ("not applicable") in the COPD column.
28	**PGP Step 3: Weighting Clinical Episode Volumes**	Next, just as in the ACH calculation, CMS calculates a normalized weight for each Quality Measure, based upon the volume of triggered Clinical Episodes. We have provided a sample calculation showing that the Advance Care Plan Quality Measure gets a weight that is higher than Perioperative Care because it is relevant for more triggered Clinical Episodes.

29	**PGP Step 3: Volume weighting to get the CQS**	We now have two sets of standardized numbers. The first is the scaled score, which represents the standardized Quality Measure results. The second is the normalized weight, which represents the standardized Clinical Episode volumes. CMS then does a weighted average calculation: Each scaled score is multiplied by its normalized weight and then adds these weighted scores together to get the CQS. On the slide, we can see the calculation for Lakeside PGP is the sum of 23, 7.5, 22.3, 21.6, and 4.8. This equals 78.3, which is the CQS for Lakeside PGP. This concludes our review of the CQS calculation for PGPs.
30	**CQS Impact on Reconciliation**	The CQS will accrue during Calendar Year (CY) 2019 and CMS will calculate it for the first time in Fall 2020 using Calendar Year 2019 quality data. That CQS score will be incorporated in the reconciliation results for Performance Period 1 during the 2nd true-up in Fall 2020 and for Performance Period 2 during the 1st true-up in Fall 2020. The monetary impact of the CQS score on reconciliation is introduced in the BPCI Advanced Model Years 1 & 2 Performance Period 1 Reconciliation Webcast and this impact will be described in more detail in the future.
31	**Additional Information**	We started this webcast with a high level overview of the CQS process, walked through the two-step process for ACHs and the three-step process for PGPs, then explained how Clinical Episode volumes impact the CQS calculation. We hope this information has helped your understanding of how CMS calculates the CQS for ACHs and PGPs. If you need additional assistance, you can email the BPCI Advanced team at BPCIAdvanced@cms.hhs.gov and include your BPID or application ID. If you have additional **questions**, we encourage you to first visit the BPCI Advanced website. You will find many helpful resources, and

		we'll continue to post new and updated materials, such as Frequently Asked Question documents. Finally, please take a moment to complete a short nine-question survey that appears at the end of today's event. This survey helps the BPCI Advanced Learning System Team to improve events and identify topics important to you. Thank you for viewing the BPCI Advanced Composite Quality Score Webcast.