PPS-Exempt Cancer Hospitals Quality Reporting (PCHQR) Program

Support Contractor

PCHQR Program: Lessons Learned in Population and Sampling and from EBRT

Presentation Transcript

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Lisa Vinson: Good afternoon. We would like to welcome everyone to today's webinar entitled, PCHQR Program: Lessons Learned in Population and Sampling and from EBRT. Our presenters today will be Tom Ross, PPS-Exempt Cancer Hospital Quality Reporting or PCHQR Program Lead, Hospital Inpatient Values, Incentives, and Quality Reporting, or VIQR, Outreach and Education Support Contractor; and myself, Lisa Vinson, Project Manager for the Hospital Inpatient VIQR Outreach and Education Support Contractor. Today's webinar is part of the series for the PPS-Exempt Cancer Hospitals or PCHs participating in the PPS-Exempt Cancer Hospital Reporting or PCHQR Program. As the title indicates, today, we will be discussing lessons learned in population and sampling and from EBRT or eeh-bert. These lessons have come from experiences during the most recent data submission period, which ended August 15, 2016. Please note that during this webinar, we will only be discussing topics pertaining to the PCHQR Program with great detail about data collection, sampling, and abstracting measures. So while you are welcome to participate, unless you are directly involved in the PCHQR Program, you may find that your time may be better spent elsewhere. If you have questions about the content of today's presentation, please submit them, using the chat function. As time allows, our presenters will address these during today's

event. If time does not allow all questions to be answered during today's event, remember that the slides, recording, transcript, and questions and answers will be posted following today's event on Quality Reporting Center and *QualityNet*. And now let's look at the next slide, slide number six.

As usual, here is the acronyms and abbreviations slide. Please use this slide for reference as we go through the webinar. Acronyms and abbreviations you will hear and see today include CA for cancer, EBRT or eeh-bert for External Beam Radio Therapy, Fxns for fractions, Gy for gray, NQF for National Quality Forum, and OCM for Oncology Care Measure. As always, feel free to print this slide out and post it at your desk or somewhere else for easy reference. Next slide please, slide seven.

Slide seven provides the purpose of today's webinar. As the slide states, the purpose of today's presentation is to provide participants in the PCHQR Program with information, which will help them to perform consistent population and sampling for all sampled measures as well as specific guidance to accurately abstract the EBRT measure. Now, on slide eight, let's look at the objectives for today's presentation.

As slide eight indicates, there are two objectives for today's webinar: collect population and sampling data for the oncology care and EBRT measures in a consistent manner; and, abstract and report EBRT in a uniform manner that is consistent with other PCHQR Program participants. And now on slide nine, I will turn the presentation over to our PCHQR Program Lead, Tom Ross.

Tom Ross: Thank you, Lisa. The portion of the webinar that I will be addressing today are the Lessons Learned in Population and Sampling, or more familiarly, Pop and Samp. In the PCHQR Program, population and sampling occurs with the Oncology Care Measures or OCMs and with External Beam Radio Therapy for the treatment of bone metastases or EBRT. There is also sampling that occurs with HCAHPS survey for most PCHs. But this is done via your vendor. So that is out of scope for today's discussion. All of the other measures, the cancer-specific treatment measures, the healthcare-associated infection, and the new admissions and emergency department visits are not sampled. As the PCHQR Program Support Contractor, we want to ensure that your data is submitted on time and meets the requirements specified in the final rules. In the data collection period that recently closed on August 15, 2016, we

are pleased to report that all of the PCHs successfully reported data for the OCMs and EBRT measures, and met the requirements for population and sampling. However, we did notice some inconsistencies in the application of population and sampling, and also fielded numerous calls and inquires. So we wanted to hold today's event to provide the PCHs a common framework for collecting Pop and Samp data for the OCM and EBRT measures in a consistent manner. While this does not impact the final numerator and denominator data reported, it is desirable to get the most consistent reporting across the PCHs. And I know from speaking with many of you that this is important to the PCHs, as well. So with this background being established, let's start by reviewing some of the underlying principles of population and sampling on slide number 10.

The initial population is all patients who share a common set of specified administratively-derived data elements. Note the words, administratively-derived data elements. This does not involve clinical abstraction. Currently, there is no differentiation in the PCHQR Program between reporting Medicare and non-Medicare patients. The data for the program is all patient data. So, basically, if you think about the OCM and EBRT Measure Information Forms, or MIFs, and associated algorithms, they start out with a set of ICD-10s, CPT® codes, and/or other patient population characteristics, such as age or sex. For example, to define the initial patient population for EBRT, you query your administrative data to look for patients who have the following administratively-derived data elements, remembering the name of the measure, External Beam Radiotherapy for bone metastases. Therefore, this measure is going to pull the patients from the administrative claims data based upon the following two characteristics - an ICD-10 diagnosis code for bone metastases, C79.51 or C79.52 and a CPT code for the administration of External Beam Radiotherapy, CPT 77402, 77407, or 77412. This defines your patient population for a given time period; in the case of a PCHQR, a quarter. These cases form the initial patient population, which are the patients for the measure or measure set that are eligible to be sampled, if you choose to sample. Slide 11 will talk about sampling.

Sampling is a way to reduce your data and effort burden. It is a way to select the representative part of the population to estimate a hospital's overall performance without having to abstract data for the entire patient population. Think about that for a measure such as NQF 0384, where some of you have patient populations in the many of thousands. If the performance data can be all collected from administrative data, there is

really no reason to do sampling. Sampling is useful when chart abstraction or medical record review is required to determine performance on a measure. Once again, the benefit of sampling is to reduce data collection and burden. And, the key term to remember in terms of sampling is the word representative. Let me share a brief story to illustrate this concept. A number of years ago, the PCHs were on a phone call discussing the fact that following the minimum number of patients required, 25, were abstracted for the Pain Intensity Quantified measure, NQF 0384, they were finding a low number of cases of pain and the pain being documented, using a standardized instrument. This led to small denominators in NQF 0383, Plan of Care for Pain. And, nobody likes low denominator measures as one or two non-concordant cases can make your compliance rates look low. One of the participants on the call suggested that PCHs limit the population of patients being queried for NQF 0384 to include those with advanced stage cancer or receiving palliative care. This would probably be an effective way of identifying a high percentage of patients with pain, but it would not be a representative sample of all of the PCH's overall patient population. It can then introduce other confounding factors, such as maybe palliative care services to document their pain interventions more frequently, and would ignore the practices in populations with less advanced cancer. You can see that having a representative sample is very important. We will continue our discussion of sampling in general on slide number 12.

To obtain statistically valid sample data, there are four key concepts to keep in mind. The first is that each of the individual cases in the population have an equal chance of being selected. Henrietta would always use the analogy here of a raffle, where everyone attending is given one ticket and places it in a hat. The hat is shaken up; each ticket has an equal chance of being picked. The second concept is that the sample selected, being random, will then represent the whole population. It's reflective of the population. And, the results will be reflective of the performance, the same as if every case in the population had been selected. This is why there are minimum sampling requirements dependent upon the size of your population. Of course, we want the performance of the samples to form an unbiased picture of the PCH's performance; therefore, from an ethical perspective, you should not bias the selection of your sample in a way that results in picking cases from a portion of the population that you would expect higher performance from. On slide number 13, we will review the sampling requirements for the PCHQR Program.

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First of all, remember that the PCHs are not required to sample their data. If you choose to, of course, you have either the electronic abstraction capabilities or the resources you can choose to oversample or even abstract the entire patient population. Sampling is offered in the program to decrease your data burden. Also, remember that sample sizes provided are a minimum. You may choose to sample more than the minimum but less than the entire population, as many of you did for NQF 0384. The data that you report for Pop and Samp are reviewed in the prior webinar, but I wanted to revisit this today in the context of a Pop and Samp, lessons learned. This information is on the next slide, slide number 14.

The population is all the patients who are eligible for the denominator in each reporting quarter from an administrative data. These will be patients identified as being eligible for the denominator because of the ICD-10 code and/or CPT codes and/or other administrative data for that measure. Sometimes there are also administrative-exclusion criteria, such as a diagnosis of metastatic disease. We will review this in detail later in today's event. The population is for a specific time period, which for the OCM and EBRT measures in the PCH Program, is in quarters. So you'd report Quarter 1, 2, 3, and 4 for each Program Year. The sampling is exactly that, the sample size, the sampling that was done for their population for that quarter. If no sampling was done, answering those "not sampled" are answered two to question one in the table, the sample size should equal the population. The information was entered into your external files by responding to three questions, referred to as Questions 1, 2, and 3. This same information will be required when we make the web-based data submission tool available, hopefully for the April 2017 data submission period. Q1, question one, not quarter one, uses a placeholder of SF. And the question is, what was your hospital sampling frequency? If you sampled for the quarter, you answered the number 1 for quarterly sampling. If you did not sample, you entered two for not sampled. If you have no eligible patients in the quarter, select two, not sampled. Q2, question two. This asks for your hospital initial patient population for the quarter; all of those patients who meet the inclusion criteria for the quarter and were not excluded by the administrative data. Q3, question three, this is your hospital's quarterly sample size, the number of patients or cases actually abstracted for reporting for the quarter. For NQF 0382, 0383, 0384, and 1822, your sample size, your response to question three above, must equal your reported denominator for that measure. The reason for this is that these measures have no numerator exclusions. In the two OCMs for prostate cancer, however, there are numerator exclusions,

which we have reviewed in the previous educational events. On slide 15, we will review the population and sampling guidelines for the program.

So, if you think about it, for the OCMs and EBRT, if you entered "not sampled" for your sampling frequency, then your population must equal your sample size because it was not sampled. For PCH-14, -15, -16, and -25, which are NQF 0382, 0383, 0384, and 1822, there are no post-denominator exclusions. So your denominator will also be the same. As mentioned, this does not apply to PCH-17 or -18, which are NQF 0389 and 0390, as the possibility of post-denominator, or numerator, exclusions may apply. We then see our familiar sampling grid. Remember, if your patient population is less than or equal to 10, sampling is not allowed. The grid displays less than 10, no sampling. But, for a population of 10 to 50, the minimum sample size is 10, so there is really no sampling for 10 or less. If you are allowed to sample due to your patient population and do choose to sample, slide 16 will review some tips on how to ensure that you have a statistically valid data in your sample.

As we have emphasized, if you sample, you want to ensure that the sample data represents the initial patient population. This means you should use a random sampling strategy and sample at least the minimum sample size based upon your initial patient population. And secondly, whatever sampling method you do apply, use the same methodology consistently within the quarter. Two methods of random sampling are outlined on this slide. The first is simple, random sampling. This is simply selecting the cases for the sample in such a way that every case in the population, capital N, has the same chance of being selected to be in the sample denoted as lower case n. Two of the methods to do this are the lottery type drawing such as the raffle instance we discussed earlier. The other way is by use of a random number generator, many of which can be found on the Internet. For example, let's say you have a population of 125 eligible for EBRT, you decide to sample. Referring to the sampling grid, this means you need a minimum of 25 cases. Number the cases from 1 to 125 in a spreadsheet, then use the random number generator to provide you 25 random numbers and then review these numbered records. A second method is a systematic random sampling. Once again, our population is capital N and the sample is lower case n. We then sample every kth record from the population starting the randomly selected starting place. K must be less than the population, capital N, divided by the sample size, lower case n. So, using our example of a population of 125 and a sample size of 25, the 125 divided by 25 is five. So, k must be

less than five. So let's choose three. We then throw a die and decide to randomly pick our starting record. This comes up as a two. So, we would start at record number two, then add three, select record five, add three more, select record eight and so forth until we have our sample of 25 patients. One last topic I want to address is what to do when you have a minimum sample size selected from your population. And then, when abstracting, you find that there are cases that are excluded from the denominator due to clinical factors, such as differing disease stage, medical contraindication, or other exclusions. The answer is you should supplement to get back to the minimum required sample size. For example, in EBRT, let's say we need those 25 cases. However, we worked through the clinical exclusions, we find out that 10 can meet the exclusion criteria, we then need to randomly resample or supplement from initial population until we reach the minimum required sample size based upon the initial patient population. So, with the basics for population and sampling reviewed, let's walk through each of the OCM and EBRT measures so that we are all on the same page. We will begin on slide number 17 with the simplest of measures, NQF 0382 or Radiation Dose Limits to Healthy Tissues.

In this measure, we begin as always when we are reporting Pop and Samp to determine our initial patient population, for the quarter that we are going to be abstracting and reporting for. The first thing we do is look for the patients who are eligible for the measure due to a diagnosis of lung or pancreatic cancer during the measurement period. This is determined by ICD-10 codes. In our example, there were 1,500 patients who had encounters during the measurement period. And of these, 100 had a diagnosis of pancreatic or lung cancer. Remember, while the patient population for this measure was expanded in the fiscal year 2017 final rule, the expansion to include breast and rectal cancer will not be in effect until patients being treated starting January 1st, 2017. Next, we have an administrative exclusion criterion, the presence of metastatic cancer diagnosis. This applied in our example to 25 patients, reducing the number eligible for the initial population to 75. Lastly, we need patients to have received 3D conformal radiation during the measurement period. This is determined by a CPT code. Twenty-five of the 75 patients still eligible for the reporting period did not have this therapy and therefore are not included in the initial population. This leaves us with 50 patients who are eligible. Therefore, our population is 50. We now have a choice to sample or not. If we elect to sample, and I think many more will in 2017 when the breast and rectal patients are included, we have to randomly

sample a minimum of 10 patients. In reporting this data, depending upon your patient populations, some will sample and some will not. So, your answer to Q1 will be one if sampled and two if not sampled. The answer to Q2 is going to be the population determined as outlined above for the quarter. And, your answer to Q3 is going to be your actual sample. Remember that your sample size must meet the denominator reported for NQF 0382. Now, let's jump ahead to the algorithm for 0384, skipping 0383 for now. The reason for it will soon be apparent. This is on our next slide, slide number 18.

NQF 0384 is Pain Intensity Quantified. We saw some numbers from the initial patient population, but they were lower than expected. So, after today's event, if you have questions about these administrative codes, please feel free to reach out to us. Once again, we start with administrative data to begin winnowing down all of the patients seen in the quarter at the PCH to those who qualify for this measure. The first step is a diagnosis of cancer as noted by ICD-10 code; a very long list of ICD-10 codes. In our example, there are 19,000 such patients in the quarter. We then ask if they received chemotherapy or had an office visit, based upon CPT codes, within certain time parameters or if they had an encounter for radiation therapy, once again based upon CPT code, during the measurement period. In the example, there are 2,000 patients who met that criteria, so therefore our population is 2,000. Now, unless you have this data available electronically (or a resident that you don't like), you probably do not want to abstract 2,000 records. So, a minimum of 25 random cases is required. However, as discussed in previous events, most PCHs choose to oversample to a minimum of 125 patients or until they get 25 patients who qualify for NQF 0383. In reporting this, most of you reported, sampled quarterly, a population in the thousands, and a sample of the actual number of records reviewed. And, once again, when reporting your data, the number sampled must equal the denominator for NQF 0384. Our next slide, slide number 19, shows the numerator portion of the NQF 0384 algorithm.

So, for those patients that we randomly sample from the population for NQF 0384, we then asked if pain was present. And if so, was the pain intensity quantified using a standard instrument? Those patients who do not have pain present, and those that have pain present and it is quantified using a standardized instrument, are included in the numerator for NQF 0384. What I want to emphasize here is that those patients who have pain present, and it is quantified using a standardized instrument, form the

patient population and denominator for NQF 0383, Plan of Care for Pain. NQF 0383 and 0384 are paired metrics. This bears repeating. Those patients who have pain present, and it is quantified using a standardized instrument, form the patient population and denominator for NQF 0383, Plan of Care for Pain. Our next slide shows an abbreviated algorithm for this measure.

This algorithm emphasizes that the patient denominator or population for NQF 0383 is those patients from the previous slide for NQF 0384 who have pain and the pain is quantified using a standard instrument. We do not have to go all the way back to the beginning of NQF 0384 and work through the entire algorithm and resample an abstract. Simply take the qualifying patient from NQF 0384, experiencing pain and the pain intensity quantified, using a standard instrument, and let them be the population for NQF 0383. Let me outline this more in our next slide, slide number 21.

The first two bullets, we are driving home important concepts that are central to understand. NQF 0384 and 0383 are paired measures. The patients in NQF 0384, Pain Intensity Quantified, who have pain and is quantified, using a standardized instrument, form the patient population for NQF 0383, Plan of Care for Pain. Furthermore, we know that most PCHs are oversampling NQF 0384 to get a larger denominator in NQF 0383. So, to sample this population, after going through all of the extra work to get a bigger denominator, seems counterintuitive. Also, you are probably already in the chart to abstract for 0384, so it is relatively little work to abstract 0383 while you are already in the record. So for NQF 0383, we would expect most PCHs to report a sampling frequency of two, not sampled. The population would be the number of patients who are in 0384 with pain present and quantified, using a standardized instrument. And as it is not being sampled, the sample, or answer to question three, should equal the population. And, once again, as there are no numerator exclusions, remember that the sample size must equal the denominator. Now, on to slide 22 to begin discussing a couple of trickier measures, NQF 0389 and 0390, the prostate OCMs.

The reason I say that these are trickier measures is that the determination of the population gets a bit muddier with these measures, as all the information needed to assess who is eligible for the patient population, requires data that is not typically found in the administrative data, but may require input from a cancer registry or further query of electronic record,

depending upon the maturity and discreetness, if that's a word, of your electronic health record. NQF 0389, Prostate Cancer: Avoidance of Overuse of Bone Scan for Staging Low-Risk Patients begins with gender of male. In our example, this includes 4,600 male patients. They then need a diagnosis via ICD-10 code, of prostate cancer. In our example, this takes the eligible patient population down to 400 patients. Then, using CPT codes, we see if they received brachytherapy, EBRT, a radical prostatectomy, or cryotherapy, during the measurement period. This reduces the patient population to 76 and really ends the determination of the initial patient population, using administrative data. However, it is clear that this standard only applies to patients with low-risk prostate cancer. There is a CPT II code 3271F for low risk of recurrence, prostate cancer in the PQRS standards. However, we know that CPT II codes are not readily available or used in the PCH setting. Therefore, we need to continue to find the population by looking at those patients who meet the definition of low risk of recurrence. This is defined by patients who have a PSA less than or equal to 10, and a Gleason score less than or equal to six, and clinical stage of T1c or T2a. In our example, this reduces our eligible patients to 20, so our population equals 20. In this instance, we can choose to sample and select a minimum of 10 random cases for our sample. This has been a low population measure for most of the PCHs and therefore most have reported a sampling frequency of two, not sampled. The population seems to range from 10 to 50 in general. And, once again, the actual number sampled is a reported sample. For this measure, there are numerator exclusions. So the sample size may not equal the denominator for the measure. On the next slide, slide 23, we will now—we will look at NQF 0390, which is very similar in construction to 0389, only with a different patient population.

NQF 0390 is Prostate Cancer: Adjuvant Hormonal Therapy for High-Risk Patients. In determining the patient population, we once again first limit to male patients. This limits us to 3,000 patients in the example displayed. We then look for the ICD-10 code of prostate cancer. This limits the eligible population to 300 for the quarter. We then apply the administrative-exclusion ICD-10 code for metastatic disease, which further reduces our patient population to 250 patients. The next step then requires the patient to receive EBRT to the prostate during the reporting period. This is determined by CPT II, by CPT code. This reduces our patient population to 100 patients. Just as in NQF 0389, this is the end of the usefulness of administrative code data for the PCHs. There is once again an administrative code for high or very high risk of recurrence,

G8465; but most PCHs do not have access to, or utilize, this code. Therefore, it requires clinical abstraction, as the measure is limited to patients at high or very high risk of recurrence, registry data, or EMR abstraction. There are numerous criteria for this step in the full algorithm in the MIF and algorithms on *QualityNet* to assess PSA, stage, and Gleason score. We have simplified this here for the sake of illustration. In our example, there are 35 patients of the 100 still eligible for the population who meet the definition of high or very high risk of recurrence. From this population of 35, the decision was made not to sample. So the sample in this case equals the population of 35. Most of the PCHs have a population of 10-to-50 range and elected not to sample, which is reported once again, as an answer of two to question one, not sampled. The population and sample are reported as the actual population and actual sample. As with NQF 0389, there are numerator exclusions in this measure so the sample may not equal the denominator for this measure. So now we will look at EBRT or eeh-bert, the most challenging of these measures to perform population and sampling for. We will begin this discussion on slide 24.

In this section, and in the lessons learned from EBRT that Lisa will be sharing with you next, we're displaying the new algorithm that is being proposed, but has not yet been fully approved for use of NQF 1822. However, all of the concepts are the same as that in the current algorithm, there is just more clarity, based upon the lessons learned. Once we have had final approval from CMS and the measure steward, we'll post the new algorithm and MIF, probably for use, starting on 1/1/2017. But, as I stated, there is nothing contradictory to the current MIF or algorithms posted. So you continue to use them in conjunction with the materials discussed and shared today. The first step, is to use the administrative codes for the ICD-10 codes for the diagnosis of metastatic bone disease, in conjunction with the CPT codes for the administration of EBRT, to define the initial population for the measurement period. EBRT is billed differently in different hospitals and many patients will have multiple encounters for the same treatment plan. Therefore, it is best to collapse these multiple encounters to the medical record number so that each patient, who had a diagnosis of metastatic bone disease and received EBRT, is counted only once in the measurement period, or quarter. This will not be an exact number of cases; it is a best approximation. I have discussed this with numerous PCHs, and we feel that this is the most accurate number of cases in the population we can estimate in the quarter. So, this is your population. I want you to be aware of two factors about

this estimate of the population. The first is that some patients will have multiple lesions being treated with EBRT. As Lisa will share with you, each metastatic lesion treated with EBRT should be treated as an independent case. So, therefore, this estimate of a population will be low. However, you'll find that many of the patients who are identified by using the administrative codes will be excluded. And, in fact, many should not even have been included in the initial population for EBRT. As a patient with an ICD-10 code for bone metastasis, getting EBRT, will be included in this measure, even if EBRT is to another site other than a metastatic bone lesion. This will cause the estimation of the initial patient population to be high. So, these two factors will sort of balance each other out. Therefore, for each quarter, use the number of individual patients, on a medical record basis, who have a diagnosis of bone metastasis and received EBRT during the measurement period that constitute your patient population. If you choose to sample, apply the sampling methodology at this point and randomly select your sample. You will then have to review these records to see if the patient meets any of the exclusion criteria. For those patients who meet the exclusion criteria, be sure to supplement and resample until the original sample size required by your population is reached. And, please note, the population is the total number of cases or metastatic bone lesions treated with EBRT. It may be that you will not have to sample all of the patients in your randomly selected patient population to reach the minimum number of cases, as some will have multiple lesions. To recap, the number of individual patients meeting the administrative definition is the population. We then translate that to the number of cases. Randomly sample and review the records until you have the number of cases, metastatic bone lesions treated with EBRT, to meet the sample size required for your population. And remember, your sample must equal the denominator for this measure as there are no numerator exclusions. We will review this with a hypothetical case on the next slide, slide number 25.

In this example, a query of the administrative data for a quarter finds that there are 215 encounters that have both an ICD-10 code for bone metastasis and a CPT code for the administration of external beam radiotherapy. These 215 encounters contain several duplicate patients. So, we collapse the individual medical record number and find that there were 112 unique patients with an ICD-10 code for bone metastasis who received EBRT during the quarter. Therefore, our population is 112. For the sake of estimating the number of actual bone mets treated with EBRT, remember that this number overestimates in some ways, people getting

EBRT for non-bone lesions, and underestimates in some ways, patients with multiple bone mets. We think of our population as 112 bone metastasis, receiving external beam radiotherapy. We choose to sample. Therefore, following the sampling guidelines, for initial patient population of 51 to 125, we'll have to sample a minimum of 20 percent of the patients. In this example, this is 22.4; so rounding down to our minimum sample size is 22 cases. We would then randomly select 22 cases from the population of 112 cases. Remembering that each separate anatomic site receiving EBRT is a separate case, we would review the records until we had abstracted the minimum number of 22 cases. When we find a case with a denominator exclusion, we continue to supplement until we reach the minimum of 22 cases that have no exclusions. Remember that you are allowed to oversample. For the cases that are not excluded from the denominator, we evaluate the ordered dosing fractionation scheme to see if it is compliant with one of the four approved fractionation schemes for NQF 1822. We will report this scenario as follows: Q1, sampling frequency is equal to one, for quarterly sampled; Q2, population is 122 [speaker error: population should be 112]; Q3, the sample will be the number of cases you reviewed that did not contain a denominator exclusion, and it would have to be a minimum of 22 per the sampling guidelines. Remember that the denominator has to equal the sample size for this measure. So, if (while reviewing the records) you exceed the minimum number of cases, be sure to report your sample as the total number of eligible cases reviewed and reported. So, that concludes my section, on population and sampling. I'm now going to turn the presentation over to Lisa to share the lessons that we have learned over the past one-and-a-half years from the PCHQR Program and the last six months in working with the Hospital Outpatient Quality Program from EBRT. This, as most of you have realized by now, is a challenging measure. I think Lisa's presentation will provide a lot of clarity and guidance on the topic. Lisa?

Lisa Vinson: Thanks, Tom. NQF number 1822 or EBRT has been a PCHQR Program measure since January 2015. It was recently added to the Hospital Outpatient Quality Reporting or HOQR Program, effective January 1, 2016. CMS would like to keep this metric consistent between the PCHQR and the HOQR Programs. Therefore, there have been some proposed updates or changes to the flowchart, which we will see on the next slide and further discuss for the remainder of this presentation. Next slide, please, slide number 27.

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This slide includes a proposed, updated version of the flowchart for NQF number 1822. As Tom related, this is not posted on *QualityNet* yet, but it is totally consistent with the information that is currently on *QualityNet*. It just provides more clarity. We plan on posting this material later in the calendar year. It reflects proposed changes that have been made, such as, the rewording of certain steps, and the addition of an exclusion step, all of which to allow for clarity and consistency when abstracting and reporting for this measure. So, let us begin our discussion pertaining to frequently posed issues and explanations of such with EBRT. Next slide, please, slide 28.

For lesson one, we learned that administrative data will capture other patients. As noted on this slide, both the ICD-10 and CPT codes are required for identifying potential patients for inclusion in the EBRT population. The diagnosis of bone metastasis or metastases is established by the ICD-10 codes, and the administration of EBRT is established by the CPT codes. There may be patients identified by these codes that have a history of bone mets and are ordered the EBRT to treat something other than a metastatic bone lesion; for example, lung, liver, whole brain, et cetera. These patients will be captured by the presence of the ICD-10 and CPT codes, but should not be included. Only treatment of bone mets should be evaluated. This exclusion also applies to cases where there is a mixed etiology; for example, in metastatic bone lesion on the cervical spinal cord extending into the spinal cord itself. To reiterate, EBRT used to treat anything other than a metastatic bone lesion should not be included in the patient population for NQF 1822. However, as there is no specific CPT code for EBRT solely to bone metastasis, it will require a chart review to find and remove these cases from the denominator. So, the new denominator statement included the addition of the qualifier, “for treatment of bone metastases.” Next slide, please.

Lesson two pertains to one of the denominator exclusions for the EBRT measure, History of Previous Radiation Therapy to the Same Site. Depending upon the fractionation scheme ordered, and how your facility bills for EBRT, a patient may have multiple encounters with an EBRT CPT code for a single treatment plan. It is common for multiple encounters to span over days, weeks, or even two months. It is important to consider all encounters that result from a single treatment plan as one case. Fraction number seven of a regimen of 30 gray over 10 fractions is not excluded because the patient received EBRT to the same site on fractions one through six. Consider all encounters that result from one

treatment plan as one case. So, you may be wondering, how does this exclusion, history of previous radiation therapy to the same site, apply? This exclusion is only applicable if there is a historical treatment of EBRT to the same anatomic site from a prior treatment plan. For example, if five months ago, a patient received EBRT 20 gray over five fractions to a metastatic lesion on the left femur, and now appears for retreatment of the same, this case would be excluded. The key here would be to review the medical documentation to see if the previous EBRT involved the same anatomic site. You will often find words such as retreatment, re-irradiation, or overlap with prior treatment field. If such documentation is found, the case is to be excluded. Next slide, please, slide 30.

As lesson three points out, there are patients receiving EBRT to more than one metastatic bone lesion. The EBRT measure is evaluating the dose and fractionation scheme of EBRT to treat bone metastases only. Each different anatomic site, where a metastatic bone lesion is present and receiving EBRT with an approved dosing schema, should be considered a separate case. Each case will be applied to the numerator and denominator, unless there are exclusion criteria that apply. So, a patient who is receiving EBRT to the left femur, and the right clavicle, would count as two cases. Next slide, please.

EBRT can be delivered in a variety of ways, including 3D conformal therapy, intensity modulated radiation therapy, SBRT, and SRS, and proton beam therapy. However, the treatments delivered via SRS or SBRT are excluded from the measure as they deliver highly focused radiation therapy. And, the optimum-dose schema for these delivery methods have not yet been defined in the literature. This exclusion applies to the use of these modalities, SRS or SBRT, during the current administration of EBRT to the anatomic site. There have been some who took this exclusion to be any treatment, current or past, with SRS or SBRT, to be an exclusion. It only applies when the current EBRT being evaluated is being administered via one of these modalities. Next slide, please, slide 32.

The exclusion for clinical protocol or registry study participants has often been misinterpreted. The current terminology of registry study has led some to believe if a patient is captured in their cancer registry they are excluded. This is not true. The exclusion should apply only when a patient is enrolled in a perspective clinical or protocol, involving the use of radiation therapy. The rationale is that the parameters and dosing

guidelines used in a clinical study or trial may be outside of the recommended treatment fractionation schemes recommended for treating bone metastasis in NQF 1822. Next slide, please, slide 33.

Lesson six, when to apply the femoral axis cortical involvement and surgical stabilization procedure exclusions is sometimes not as clear or straightforward. Femoral axis cortical involvement refers to the degree that the lesion has moved into the cortex or hard outer layer of the bone. The amount of cortical involvement weakens the bone and increases the likelihood for pathological fracture. Documentation in the medical record, whether it is found in the physician notes or there is radiologic evidence, must indicate that the femoral axis cortical involvement is greater than three centimeters in length. These patients may require surgical stabilization. The exclusion for surgical stabilization pertains to previous surgical stabilization of the area where the bone metastasis is being currently treated with EBRT. Review of the medical record is necessary to find the documentation to support this exclusion. Phrases you might find that will be sufficient to apply this exclusion include, reinforcement or internal fixation. Other examples would be, kyphoplasty, insertion of a rod or a plate or screws, or an open reduction internal fixation or ORIF. Next slide, please.

The spinal cord or cauda equina compression and radicular pain exclusions are only applied when the EBRT is being used to treat a metastatic bone lesion in the area of the compression or source of the radicular pain. Any current or history of spinal cord compression meets the exclusion criteria, if the bone lesion being treated with EBRT involves that anatomic site. As for radicular pain, the specific diagnosis is required. Upon review of the medical record, the physician may use ICD-10 CM codes M54.10 through M54.18 to apply this exclusion. A clinical description of the pain may also be used. However, in this description, the physician should specify radicular pain and avoid the use of terms such as, radiating pain or nerve pain. We have queried the measure steward for this measure, NQF number 1822, and they have acknowledged that this is a controversial topic, and that the nomenclature of nerve pain versus radicular pain versus radiating pain is debated in the field. If such documentation is found, the recommended course of action is to not exclude the patient from the measure. Please look for documentation specific to radicular pain to apply this exclusion. Next slide, please.

Regarding lesson eight, initially, there was a denominator exclusion for patient reasons, including patient declines therapy and economic, social, or religious reasons. This was derived when the measure was originally written to identify patients, using the ICD-10 codes for the radiation therapy treatment planning for EBRT, which would only occur once. However, the CPT codes for radiation treatment planning are physician billing codes, and many hospitals did not have access to this data. Therefore, the decision was made to utilize the CPT codes for the administration of EBRT 77402, 77407, and 77412, which are more readily accessible. Since inclusion of this measure is based upon the administration of CPT codes for EBRT, this exclusion has been removed altogether. After all, if the EBRT was administered, it was not refused. In the scenario where a patient does not complete the course of EBRT, the case is still included in the denominator and evaluated. The rationale for this is that the measure is accessing the fractionation scheme ordered to treat bone metastasis. Being that it is not based upon what was delivered, completion of the treatment course is not required for this measure. Next slide, please.

The ICD-10 and CPT codes were provided to assist in electronically narrowing the identification of patients eligible for the denominator population. Please keep in mind that any CPT and ICD-10 codes for SRS or SBRT, spinal cord compression, cauda equina compression, and radicular pain that were found in the previous MIF and algorithms, should not be used in excluding patients from your initial population. By doing so, a patient will be incorrectly excluded from the initial population. Clinical abstraction and chart review are necessary to determine if any of these exclusion criteria apply. For example, a patient may indeed have an ICD-10 code for spinal cord compression. However, the current EBRT may be to a site such as the ulna, which has no involvement with the spinal cord compression. A chart review is required to identify when these exclusions can be applied. Now let's review a few common EBRT case scenarios that will allow what you have learned so far to be put to use. Next slide, please.

Our first case study involves a patient who has multiple encounters for the administration of EBRT in a two-week period. This leads us to three important questions, which are—are these to be abstracted separately? If encounter number three is randomly selected, do I answer yes to the question, history of radiation therapy to the same anatomic site as they

received EBRT on encounters one and two? What date should be used for this case? On the next slide, let's review the answers. Next slide, please.

For the EBRT measure, it is important to always consider all encounters that result from a single treatment plan as one case. So question one, are these to be abstracted separately? It is common to have multiple encounters related to one course of therapy that span over days, weeks, and even months. So, no, these encounters should not be abstracted separately but grouped together as one case. Question two, if encounter number three is randomly selected, do I answer yes to the question, history of radiation therapy to the same anatomic site as they received EBRT on encounters one and two? You would answer no. History of radiation therapy to the same anatomic site exclusion criteria is only applicable if there is a historical treatment to the same anatomic site from the prior treatment plan. The key is to check the documentation, which oftentimes will contain phrases such as re-irradiation, retreat, or overlap of previous field of administration that indicate previous radiation therapy. Question three, what date should be used for this case? Review of the medical record is necessary to ascertain when the first dose of EBRT was administered. This is the date that should be used to date the case for abstracting and reporting purposes. Next slide, please, slide number 39.

For case study question number two, a patient was identified from coding data as having a diagnosis of bone metastases and having received EBRT during the measurement period. Questions to ponder. When I reviewed the medical record, I see that one of the treatment plans for EBRT is for whole brain radiation therapy. Should I include this case in the denominator? When I review the medical record, I see that one of the treatment plans for EBRT is for bone metastases on the left ulna. Should I include this case in the denominator? Let's review the answers on the next slide. Next slide, please.

NQF number 1822 is used to assess the fractionation scheme planned to be administered to treat bone metastases only. With that in mind, let's answer the two questions at hand. Question one states, when I review the medical record, I see that one of the treatment plans for EBRT is for whole brain radiation therapy. Should I include this case in the denominator? Both the ICD-10 79.51 and 79.52, and CPT codes 77402, 77407, or 77412 identify patients that have a history of bone metastases and have EBRT ordered to treat something else. In this instance, whole brain radiation. These patients will be captured by the presence of the ICD-10 and CPT

codes; however, only the treatment of bone metastases should be evaluated. Therefore, this case should not be included in the denominator. Question two says, upon reviewing the same patient's record, it was also determined that the patient received EBRT to the left ulna. What should I do with this case? This treatment will be considered a separate anatomic site and abstracted as a separate case. And, as it is treatment of a bone metastasis, it would be included in the denominator. Next slide, please.

Our third case scenario involved a complicated patient. Upon review of the record, it was found that EBRT was administered to four separate sites: Left tibia with 3D conformal radiation; spinal lesion at cervical vertebrae C2 through C3 via SRS; mass on right chest wall, including soft tissue; and, EBRT to a lesion to the left clavicle. The abstractor needs help with abstracting this data correctly. Next slide, please.

A key point to remember here is to treat each separate anatomic site as a separate case. So, in this scenario, each anatomic site needs to be evaluated independently for concordance. Lesion number one, this case is concordant. The rationale is 3D conformal radiation is an acceptable EBRT delivery method used to treat a metastatic bone lesion, which is at the left tibia, and one of the four recommended fractionation schemes is used. Lesion two, this case is excluded from the denominator. The rationale is, stereotactic radio surgery, or SRS, is not an acceptable EBRT delivery method [to include in the denominator for NQF 1822] because the optimal fractionation schemes for this modality have not yet been determined. Lesion three, this case is excluded from the denominator. The rationale is, the location of the lesion involves more than bone, soft tissue in this case, and the physician will need to be allowed to individualize the treatment schema. Remembering that EBRT applies to bone metastases only, this case would be excluded. And lesion four, this case is concordant. The rationale being, that this measure is assessing the fractionation scheme ordered, which is one of the approved fractionation schemes, not delivered. Furthermore, completion of the course of treatment is not a requirement. So, for this case, although therapy stopped, the patient did receive at least one fractionation of a recommended dose. And now, on to our last case study, slide 43, please.

Scenario four states, in an earlier version of the EBRT tool, there was an exclusion for patient refusal. Why is this no longer available? The patient's reasons exclusions, which include documentation of patient declining or refusing treatment, and documentation of economic, social, or

religious reasons, were initially included to be applied as an exclusion before treatment was received. The CPT code was for radiation therapy planning. Since the measure has been refined to use codes for the administration of EBRT, the presence of this code in the record indicates that the patient received at least one treatment. Therefore, the patient refusal exclusion is no longer applicable. This concludes our review of lessons learned from EBRT. One slide 44, I will review some upcoming dates and milestones.

You can see the next three webinars that are scheduled for the PCHQR Program. Note that the October 6 event is earlier in the month than usual. This is so that you have this information about public reporting while you have access to the Public Reporting Preview Report. As for upcoming data submission deadlines, HCAHPS for Quarter 2, 2016, will be reported by your vendor on October 5. And by November 15, you will be reporting cancer-specific treatment measures, and the CDC will be reporting your HAI data. You will, as always, receive detailed instructions and ListServes as we get closer to these events. At this time, I will turn the event over to Deb Price to review the CE process.

Deb Price: Thank you, Lisa. Due to time constraints for this webinar, anyone who wants CEs for the event, please review the rest of these slides carefully. I am going to move through them very quickly now and then you can just contact me later. All right. This event has been approved for one continuing education unit for the boards listed on this slide.

If you – we now have an online CE certificate process. If you registered through ReadyTalk®, a survey will automatically pop up when the webinar closes. We will also be sending out a survey link in an email to all participants within 48 hours.

This is what the survey will look like at the end of this – at the end of my slides. And, what you do is you click, Done, on the bottom. And, the next slide, this is what will pop up.

You have a new user link and an existing user link. If you have never had any problems getting certificates, please use the existing user link. If you have had problems, use the new user link.

This is what the new user link will look like. First name, last name, we are asking you to use a personal email, and phone number, because a lot of the hospitals have firewalls that our links cannot move through.

Support Contractor

And this is what the existing user page looks like. Your username is your complete email address, including what is after the @ sign.

And, this concludes our event for today. Thank you for attending today's webinar. We hope you have learned something, and we want you to have a great rest of your day. Goodbye.

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