Transcript – Expert to Expert Webinar: Annual Update for Hospital Harm-Acute Kidney Injury eCQM for 2026 Reporting Year

Broadcast May 7, 2026

Slide 1 [00:00:00]

[Susan Funk] We're going to get started with today's broadcast. Welcome and thank you for joining us for this Joint Commission Expert to Expert Webinar, addressing the 2026 Annual Updates for the Hospital Harm: Acute Kidney Injury eCQM. The Expert to Expert Webinar Series is offered in partnership with the Centers for Medicare and Medicaid Services and eCQM stewards. CE credit is available for attending the live broadcast only. I'm Susan Funk, Associate Project Director for Engagement on Quality Improvement Programs at Joint Commission, and today I'll be serving as this webinar's moderator. Next slide, please.

Slide 2 [00:00:42]

Before we begin with the webinar content, we would like to offer just a few tips about webinar platform functionality. Audio is by Voice Over Internet Protocol only. Use your computer speakers or your headphones to listen. There are no dial-in lines. Participants are connected in listen-only mode. Feedback or dropped audio are common for live streaming events. If you experience such audio or streaming issues, refresh your screen or leave and rejoin the session. We will not be recognizing the Raise a Hand or the Chat features. To ask a question, click on the question mark icon in the audience toolbar. A panel will open for you to type your question and submit. The slides are designed to follow Americans with Disabilities Act rules. Next slide.

Slide 3 [00:01:34]

Speaking of the slides, they're available now. There are many links that are provided throughout the webinar, but they are not clickable on screen. By downloading the slides, you'll be able to access the links and also take notes. To access the slides now, locate the webinar participant navigation pane and select the icon that represents a document. A new popup window will open and you can select the name of the file. A new browser window will open, and from it you can download or print the PDF of the slides. The slides will also be available within two to three weeks of the webinar on Joint Commission's website at the link included at the bottom of this slide. The slides will also be posted on the eCQI Resource Center. Next slide, please.

Slide 4 [00:02:22]

I'm sure that many of you attending today's webinar will wish to receive Continuing Education credit or Qualifying Education Hours. All relevant information about continuing education credit is available within a handout we've included within the webinar resources and has also been communicated on the webinar registration page. The attachment includes the list of entities that will provide credit, the requirements for participants to earn credit, and information about how to complete the survey and obtain a certificate. So, be sure to download that attachment to learn more. Credit is available for attendance during this live broadcast only. For information on Joint Commission's Continuing Education policies, visit the link provided at the bottom of this slide. Next slide, please..

Slide 5 [00:03:12]

The participant learning objectives are: Locate eCQM resources on the eCQI Resource Center, facilitate your organization's implementation of the Hospital Harm: Acute Kidney Injury eCQM annual updates for

the 2026 reporting year, and utilize answers to common issues and questions regarding this eCQM to inform 2026 use and implementation. Next slide.

Slide 6 [00:03:43]

This webinar does not cover these topics: Basic eCQM concepts, topics related to chart abstracted measures, and process improvement efforts related to this measure. While we will not address how to validate eCQM data during this webinar, before submitting eCQM data to CMS, please ensure your data is validated. Specifically, please ensure that extreme outlier results are verified. For example, extreme outliers may include reporting 0% or 100%. Please note that Joint Commission is not accepting data for this eCQM for the 2026 reporting year. Next slide, please.

Slide 7 [00:04:29]

All staff and subject matter experts have disclosed that they do not have any conflicts of interest. For example: financial arrangements, affiliations with or ownership of organizations that provide grants, consultancies, honoraria, travel, or other benefits that would impact the presentation of today's webinar content. Next slide.

Slide 8 [00:04:51]

During the 75-minute webinar, we will review the annual updates and changes for the Acute Kidney Injury eCQM for the 2026 reporting year. We'll then provide an overview of the measure flow and algorithm, then we'll provide responses to some frequently asked questions about this eCQM. Finally, we'll have a live Q and A segment during which we'll share responses to questions that have been asked throughout the presentation. Next slide, please.

Slide 9 [00:05:25]

Before we transition to the discussion about the 2026 reporting year changes, we wanted to point you to a PDF handout that includes directions to access the eCQM specifications, value sets, measure flow diagrams, and technical release notes. The link to the eCQI Resource Center landing page is provided on this slide. However, be sure to download the PDF handout that has additional links and navigation guidance. You can locate that PDF within the resource section of the audience navigation pane. We explained how to access documents within the resource pane earlier in the presentation. Next slide, please.

Slide 10 [00:06:07]

Okay, I will now turn the webinar over to our speaker for today, Michael Kerachsky, from the measure steward team, Mathematica. Michael, please introduce yourself. And when you're ready, feel free to start your presentation. Thanks.

[Michael Kerachsky] Great. Thank you, Susan. My name's Michael Kerachsky, I'm a senior analyst with Mathematica. As indicated, I will present on the 2026 reporting period updates for the Hospital Harm: Acute Kidney Injury eCQM CMS832 Version 3 by first reviewing some background information on the measure. Next slide, please.

Slide 11 [00:06:51]

Thank you. Okay, as a quick note for those who are new to the measure, the Hospital Harm-Acute Kidney Injury eCQM, which we will refer to as AKI, was adopted into CMS Quality Programs in the fiscal year of 2024 Inpatient Prospective Payment System rule. This means hospitals were able to self-select the measure for voluntary reporting beginning with the 2025 reporting period for fiscal year 2027

payment determination. CMS will begin public reporting scores of this eCQM on the Provider Data Catalog in calendar year 2026. Next slide, please.

Slide 12 [00:07:36]

Right, we will now review the measure description as well as the rationale and intent. Next slide.

Slide 13 [00:07:47]

Okay, this measure is an outcome measure that is scored as a proportion measure. Further, this eCQM is an inverse measure, meaning that decreased scoring indicates improvement. The measure is intended to be used to identify and reduce AKI. As indicated in the measure description here, this measure assesses the number of inpatient hospitalizations for patients age 18 and older who have an acute kidney injury stage 2 or greater that occurred during the encounter. AKI stage 2 or greater is defined as a substantial increase in serum creatinine value, or by the initiation of kidney dialysis, continuous renal replacement therapy, hemodialysis, or peritoneal dialysis. Next slide.

Slide 14 [00:08:46]

Moving on to the rationale and intent… the incidence of AKI in general hospitalized patients is 10 to 20%, and among critically ill patients, 45 to 50%. In cardiac surgery patients, this incidence ranges from 30 to 50%. AKI may result in a need for dialysis and is associated with an increased risk of mortality. Proportion of AKI cases are preventable and treatable through careful management of hemodynamic status, fluids, and vasoactive medications. Next slide.

Slide 15 [00:09:28]

The Hospital Harm-AKI measure is a risk adjusted measure. The purpose of risk adjustment is to promote a fair and accurate comparison of healthcare outcomes across measure entities, hospitals, controls for patient-level characteristics within the population of interest and outside of the hospital's control. So, patient-level characteristics may be clinical, such as types, number, or severity of conditions, demographic, such as age or gender, functional, such as ability to walk, or social, meaning income, education, geography, etc. Note we will review the risk variables associated with the AKI measure later in the presentation. Excellent, thank you.

Slide 16 [00:10:15]

Now we'll review the Measure Header Narrative for the 2026 version of the Hospital Harm-AKI eCQM Please note, throughout this presentation, changes are denoted with an icon with a star in a red circle located in the top left corner of a given slide. New content is included as underlined text, and for additional or added content and removed content as green strikeout text. Specifically, these slides will show the changes in the Measure's Header Narrative between the 2025 and 2026 reporting period versions of the Hospital Harm-AKI measure. Next slide.

Slide 17 [00:11:23]

All right, the inpatient, or sorry, the Initial Population and Denominator remain unchanged. The Initial Population corresponds to inpatient hospitalizations that end during the measurement period for patients 18 years of age or older without an obstetrical or pregnancy related condition, with a length of stay of 48 hours or longer, and who had at least one serum creatinine value after 48 hours from the start of the hospitalization. As we see in this bottom row, the Denominator equals the Initial Population, and there are no changes. Note, when determining the inpatient hospitalization period, the measure includes time in the emergency department and observation status when the transition between these encounters, if they exist, and the inpatient encounter are within an hour or less of each other. Next slide, please.

Slide 18 [00:12:34]

All right, we'll review the Denominator Exclusions which shall span the next two slides of which there are six criteria. Reading from the top of this slide, we begin with inpatient hospitalizations for patients with an increase in serum creatinine value of at least 0.3 milligrams per deciliter between the index serum creatinine and a subsequent serum creatinine taken within 48 hours of the encounter start. Next, we have inpatient hospitalizations for patients with an index eGFR, or estimated glomerular filtration rate, value of less than 60 milliliters per minute within the first 48 hours of the encounter start. Next, inpatient hospitalizations for patients who have less than two serum creatinine results within the first 48 hours after the encounter start. And the final criteria on the slide is inpatient hospitalizations for patients who have kidney dialysis, continuous renal replacement therapy, hemodialysis, or peritoneal dialysis initiated 48 hours or less after the encounter start and do not have evidence of a two times increase in serum creatinine. Note, there were no substantive changes applied to the 2026 implementation. Next slide, please.

Slide 19 [00:14:17]

Okay, continuing with the Denominator Exclusion Header language, two more criteria, the next of which is inpatient hospitalizations for patients with at least one specified diagnosis present on admission during the encounter that puts them at extremely high risk for AKI, and that includes the bulleted criteria here. And the final denominator exclusion criteria include inpatient hospitalizations for patients who have at least one specified procedure that starts during the encounter that puts them at extremely high risk for AKI. Again, includes the bulleted list here at the bottom of the slide. As with the Numerator, there were no substantive changes applied to the 2026 implementation. Sorry, I meant as with the prior Denominator Exclusion slide. Next slide, please.

Slide 20 [00:15:24]

All right, moving on to the Numerator. The measure's Numerator evaluates for inpatient hospitalizations for patients who develop AKI stage two or greater during the encounter as evidenced by a subsequent increase in serum creatinine value at least two times higher than the lowest serum creatinine value, and the increased value is greater than the highest sex-specific normal value for serum creatinine, or kidney dialysis initiated more than 48 hours after the start of the encounter. Evidence of a two times increase in serum creatinine is not required. Only one harm is counted per encounter, which means that though a single encounter may result in evidence of more than one AKI, only one AKI is reported per encounter. Again, there are no substantive changes applied to the 2026 implementation. Okay, next slide, please.

Slide 21 [00:16:37]

All right, finally, to wrap up the Header review, we will take a look at risk adjustment portion, which is split across the following two slides. Risk adjustment includes sex and age, as well as the first vital signs since the encounter start, including heart rate, respiratory rate, systolic blood pressure, temperature. Note, units were added to first vital signs to improve clarity. Next eGFR is calculated using index serum creatinine, patient sex, and the age-based formula. And patient sex is collected for risk adjustment and to calculate the eGFR and is determined by the Federal Administrative Sex value set, which is also used to derive the supplemental data element of patient sex for the measure. Here, the supplemental data element 'ONC Administrative Sex' was replaced with the 'Federal Administrative Sex' based on the updated standards. Next slide.

Slide 22 [00:17:53]

Okay, next, all encounter diagnoses along with their present on admission indicators are being collected for the development of the baseline risk adjustment model with initial focus on any encounter

diagnoses captured for cancer, diabetes, heart failure, hypertension, obesity. Finally, encounter length of stay in days. Note, was added in parentheses after to specify the units the encounter length of stay are measured in. As referenced at the bottom of the slide, the Hospital Harm-Acute Kidney Injury Risk Adjustment Methodology Report is available on the eCQM-specific page on the eCQI Resource Center website. Next slide.

Slide 23 [00:18:48]

All right, a bit about present on admission indicators. POA indicators are defined as the conditions present at the time the order for inpatient admission occurs. The POA indicator is intended to differentiate conditions present at the time of admission from those conditions that develop during the inpatient admission. Per CMS and the Agency for Healthcare Research and Quality Convention, POA indicators of Y and W are accepted indicators of a diagnosis present on admission. POA indicators of N and U are accepted indicators of a diagnosis that is not present on admission. eCQMs rely on the accurate recording of codes, including POA indicators, and diagnoses in patients' electronic health records, which is essential for the correct calculation of this eCQM. Next slide, please.

Slide 24 [00:19:55]

Okay, this slide includes several key resources specific to the reporting of the 2026 implementation of CMS832 Version 3, including links to the Measure Specification, Technical Release Notes, and the Risk Adjustment Methodology Report. Next slide.

Slide 25 [00:20:14]

Okay, now we'll review the Measure Flow which provides a high-level overview of how the measure works. As part of our ongoing review of feedback from the public, as well as updates to the webinar series for improvement, we have combined reviewing the Measure Flow and Logic together. All right, let's now continue on to the review of the Initial Population criteria. Next slide, please.

Slide 26 [00:20:53]

All right, starting with the yellow swim lane, so top of the flow here, the Initial Population definition is Encounter with Creatinine and without Obstetrical Conditions. The following conditions must be met to qualify for this definition, which are included in the logic on the right. So, there must be an Inpatient Encounter with Creatinine, so where creatinine tests result with a value from the CREATININE MASS PER VOLUME value set is not NULL and is performed 48 hours after the start of the Hospitalization With Observation, and there must be an Encounter with Age 18 and Length of Stay 48 Hours or More in Male or Female Sex. This means that there must be an inpatient encounter which ends during the day of the measurement period and the patient is greater than or equal to 18 at the start of the encounter, the duration of Hospitalization With Observation is greater than or equal to 48 hours, and the Patient Characteristic Sex is FEMALE finding or MALE finding. WHERE NOT EXISTS, meaning where there is not evidence of an Encounter Diagnosis code in the OBSTETRICAL OR PREGNANCY RELATED CONDITIONS value set. If the criteria is met, then the patient is included in the Initial Population, if not, the patient is not in the Initial Population. Looking back up to the logic that corresponds to the definition 'Encounter with Creatinine and Obstetrical Conditions' on the right, there is a red box around the SNOMED CT Direct Reference Codes for Patient Characteristic Sex FEMALE finding or MALE finding. This corresponds to the change noted when reviewing the Header for the Initial Population and Denominator. Specifically, the Sex Supplemental Data Element value set 'ONC Administrative Sex' was changed to 'Federal Administrative Sex' based on updated standards. Next, following the arrow down to the blue swim lane at the bottom with the 'yes' in the middle there, we see the Denominator equals the Initial Population. Note the blue diamond in the upper right corner of the Initial Population definition box with

an 'a'. This is used to identify the Denominator component, which, as we will see in a subsequent slide, will be included in the sample calculation. Next slide, please.

Slide 27 [00:23:43]

Okay, this slide shows the definition logic for Encounter with Age 18 and Length of Stay 48 Hours or More and Male or Female Sex, the criteria for which must be met, along with an Inpatient Encounter with Creatinine to meet the Initial Population Denominator criteria. And this is all captured under definition 'Encounter with Creatinine and Without Obstetrical Conditions', all of which we reviewed in the flow on the prior slide. So, just a reminder, the changes identified between the 2025 and 2026 reporting year versions of the measure are included as underlined texts for additions and green strikeout text to show removed content. So, as we see, we replaced the Patient Characteristics Sex direct reference administrative gender codes Female and Male with direct reference SNOMED CT codes Female and Male based on updated standards. Next slide, please.

Slide 28 [00:24:51]

Okay, this slide begins the depiction of the Denominator Exclusions conditions, of which there are six detailed in the definition at the top of the screen. Note, this review will span the next four slides. So, beginning with the first criteria, the evaluation of definition 'Encounter with 0.3 Milligrams per Deciliter or More Increase in Creatinine within First 48 Hours'. This exclusion evaluates for patients that may be admitted to inpatient hospitalization with an AKI that started prior to admission. Note the dark blue diamond in the upper right corner of the definition box with a 'b1'. Again, this is used to identify this exclusion component in the sample calculation. Okay, following the arrow down from that definition, the logic looks for whether there is an Increase of 0.3 or More Using lowest Creatinine Within 24 Hours. If there is an Increase of 0.3 or More Using Lowest Creatinine Within 24 Hours, then following the arrow to the right and down inclusive of that 'yes' within the line, this definition should be evaluated. Note we will review the logic change to this definition on the next slide. It is not depicted in the measure flow.

Okay, looking at the logic on the right. First, evaluate for an 'Encounter with Creatinine and without Obstetrical Conditions' where the result is not null. The lowest value is selected and the laboratory tests must be documented using a code from the CREATININE MASS PER VOLUME value set where the index test is not a subsequent test and the test took place during the first 24 hours of Hospitalization With Observation, and there was a subsequent test during the first 48 hours of Hospitalization With Observation, and the index test starts before the subsequent test and the subsequent test value when subtracting the index value is greater than 0.299. We use 0.299 rather than 0.3 due to variability of decimal precision with programming languages and calculation tools. Okay, now moving back up. If there does not exist an Increase of 0.3 or More Using Lowest Creatinine within 24 Hours, then following the arrow to the left and down, inclusive with the 'No', they must evaluate for an Increase of 0.3 or More Using First Creatinine within First 48 Hours. Now, the logic here is very similar to the Increase of 0.3 or More Using Lowest Creatinine within 24 Hours, with the exception being the index test is the first serum creatinine value obtained during the first 48 hours. Next slide, please.

Slide 29 [00:28:02]

Okay, as indicated on the prior slide, we updated the timing interval for definition 'Increase of 0.3 or More Using Lowest Creatinine within 24 Hours' to reflect that the index serum creatinine and subsequent serum creatinine values are taken within 48 hours of encounter start as opposed to arrival to better align with measure intent. A subtle change here. Next slide, please.

Slide 30 [00:28:36]

Okay, this slide contains two Denominator Exclusion criteria, each of which includes a dark blue diamond, b2 and b3, in the upper right corner of definition box top. So, specific to the, well, first Denominator Exclusion criteria on the screen or second total would be two. We see the definition for 'Encounter with Index eGFR Less Than 60 within First 48 Hours'. Now, this corresponds to a Male or Female qualifying encounter, 'Encounter with Creatinine and without Obstetrical Conditions' definition, where the index eGFR, either MaleeGFR or FemaleeGFR, is not null and is less than 60 milliliters per minute.

Next, moving to the right, we have the definition for 'Encounter with Less Than 2 Creatinine Results within First 48 Hours'. Again, we have the dark blue diamond 'b3' in the top right corner. The logic first pulls in the qualifying encounter that evaluates for whether the count of laboratory tests performed with a code from the Creatinine Mass Per Volume value set is less than two within the first 48 hours. Just a note, it's hard to read here, but at the bottom of the slide in the italicized text, we indicate, in short, that the Chronic Kidney Disease Epidemiology Collaboration, or CKDEPI, creatinine equation is used to derive the MaleeGFR and FemaleeGFR values.

Next, we indicate that both the female and male equations use the index serum creatinine values defined as either the lowest serum creatinine value within the first 48 hours, or sorry, my apologies, lowest serum creatinine value within the first 24 hours, or if there is no serum creatinine value within the first 24 hours, then the index is the first serum creatinine value within the first 48 hours. Next slide, please.

Slide 31 [00:30:56]

All right, moving on to the final three Denominator Exclusions, we have a definition for 'Encounter with Kidney Dialysis Started 48 Hours or Less After Arrival without High Creatinine'. It corresponds to 'b4' in the sample calculation. Moving down to the logic, first evaluates for 'Encounter with Kidney Dialysis Started 48 Hours or Less After Arrival' where a procedure was performed utilizing a code in the HOSPITAL BASED DIALYSIS SERVICES value set that was initiated within 48 hours of Hospitalization With Observation. Next, there is an Encounter with Creatinine and without Obstetrical Conditions where dialysis starts within 48 hours of Hospitalization With Observation, where not or where there is no evidence of Encounter with 2 Times Serum Creatinine Increase. So, where there is no evidence of a two times increase in serum creatinine during the encounter.

Moving to the right, the next exclusion criteria is Encounter with High Risk Diagnosis for AKI, which corresponds to 'b5' in the sample calculation. Moving down to the logic, first evaluates for 'Encounter with Creatinine and without Obstetrical Conditions' where not an Encounter with a Diagnosis code in the HIGH RISK FOR DIAGNOSIS FOR AKI value set that was present on admission. So, present on admission indicator is identified in the PRESENT ON ADMISSION or CLINICALLY UNDETERMINED value set and this happened during Hospitalization With Observation.

And the final Denominator Exclusion to the far right is 'Encounter with High Risk Procedures for AKI', which corresponds to 'b6' in the sample calculation, the logic for which evaluates for, again, 'Encounter with Creatinine without Obstetrical Conditions' with a procedure, oh, can we go back one slide. One more forward. Yes, thank you. Okay, let's see here. Okay, so back to, again, we're at 'b6' here, 'Encounter with High Risk Procedures for AKI', again, evaluates for Encounter with Creatinine and without Obstetrical Conditions with a procedure performed the code from the HIGH RISK PROCEDURES FOR AKI value set that starts during Hospitalization With Observation. So, in summation, if any of these six criteria are met, then the encounter meets the Denominator Exclusions, and if not, we continue to page five where we will evaluate the Numerator criteria. Next slide, please.

Slide 32 [00:34:08]

Okay... so flow continues to depict the Numerator criteria and how it is evaluated. To meet the Numerator criteria, to kind of recap, there must be either an Encounter with Evidence of a 2 times Serum Creatinine Increase or Encounter with Kidney Dialysis. Now, just to take a step back and provide some context to the Numerator updates, which we will review in detail in subsequent slides, when looking at the CQL logic, the 2026 implementation of CMS832 version 3, remediated known issue EKI 35 in which the prior 2025 reporting period measure logic corresponding to CMS832 version 2 compared the timing of only the highest and lowest serum creatinine values during the encounter to determine whether there is evidence of a 1.5 times - so - identification of AKI, or a two times increase of serum creatinine. So, that's the staging of AKI. So, this approach meant that the logic evaluates all serum creatinine values for evidence of a 1.5 times and two times increase in serum creatinine. But instead of evaluating all criteria or all values, it evaluated only the overall highest and lowest values obtained during the encounter. So, specific to identifying an AKI, or at 1.5 times increase, the logic did not restrict the evaluation to the lowest serum creatinine value obtained within the preceding seven days of the high value. And for staging an AKI, or two times increase, the logic did not restrict the evaluation to the lowest serum creatinine value obtained any time prior to the highest value.

Okay, first looking at the definition for 'Encounter with 2 Times Serum Creatinine Increase', which corresponds to 'c1' in our sample calculation, we'll see the logic first evaluates definition 'Encounter with 1.5 Times Serum Creatinine Increase'. So, the first step is to identify an AKI and then we stage it. The definition next pulls in qualifying encounter from the Initial Population, captured in 'Encounter with Creatinine and without Obstetrical Conditions' where a laboratory test is performed with a code from the CREATININE MASS PER VOLUME value set. This is our high creatinine test. The creatinine test is obtained during the Hospitalization With Observation, meaning after 48 hours of Hospitalization With Observation and up to 30 days or discharge, whichever is sooner. Next, the logic takes the high creatinine test and evaluates whether the test result is greater than the serum creatinine normal value. This means it is greater than the patient characteristic sex, for females 1.02 and for males 1.18, and takes the lowest creatinine test performed within seven days prior to the highest serum creatinine test, ensuring both values were obtained during Hospitalization With Observation. Next, we evaluate to determine whether the high creatinine test value is greater than or equal to the lowest serum creatinine test times 1.5. In other words, the high creatinine test is at least 1.5 times the lowest creatinine result taken within the preceding seven days.

All right, now that we have reviewed the definition for identifying AKI, or 'Encounter with 1.5 Times Serum Creatinine Increase', we will continue to review the logic for 'Encounter with 2 Times Serum Creatinine Increase Staging AKI'. Next slide, please. Okay.

Oh, I'm sorry. Can you back up one slide? My apologies.

[00:38:36]

So, where we left off here is about midway down where the last line says "and creatinine test result value is greater than or equal to lowest creatinine test times 1.5." So, nested within here is the 'Encounter with 2 Times Serum Creatinine Increase'. So, firstly, again, we identify the AKI, 1.5 times increase, and then we stage the AKI of two times increase. So, again, beginning with the line about halfway down, Laboratory Test Performed CREATININE MASS PER VOLUME. So, we first pull in that [which] corresponds to the qualifying encounter from the 'Encounter with Creatinine and without Obstetrical Conditions' definition, again, where a laboratory test performed with a code from the CREATININE MASS PER VOLUME value set. Again, this is our high creatinine test. Where the creatinine test was obtained during the Hospitalization With Observation. Again, the logic takes the earliest high creatinine test and evaluates whether the high creatinine result is greater than the serum creatinine normal value, again, meaning the result is greater than the patient characteristic sex. Next, the logic

ensures that the lowest serum creatinine value is obtained at any point prior to the high creatinine test and both were obtained during Hospitalization With Observation. And then moving on to that second to last and last line of the logic. The logic determines whether the high creatinine test is greater than or equal to the lowest creatinine test times two. In other words, the high creatinine test is at least two times the lowest creatinine test taken at any prior time during Hospitalization With Observation.

Okay, of importance here, just to recap, it is important to note that while the logic for identifying an AKI, or 1.5 times increase evaluates for a 1.5 times or more increase in serum creatinine from the lowest value within the prior seven days of the high value. The logic for staging an AKI evaluates for two times or more increase in serum creatinine from the lowest serum creatinine value obtained at any prior time during the encounter. Thus, for staging an AKI, it is not restricted to evaluating lowest value in the preceding seven days from the highest value. Next slide, please.

Slide 33 [00:41:11]

All right, I jumped the gun before, so now we'll get into some of the logic changes within CQL definitions for this Numerator criteria. So, here we're looking at the definition for 'Encounter with 2 Times Serum Creatinine Increase'. So, the logic first identifies the high serum creatinine result by pulling in the definition for 'Encounter with 1.5 Times Serum Creatinine Increase' or Encounter with High Creatinine. Logic then identifies low creatinine test prior, the lowest creatinine test result taken at any point prior to the highest value during the Hospitalization With Observation.

Note, along with updates to simplify the logic, measure developer updated function LowCreatinineTestLowest to LowestSerumCreatininePrior in the 2026 implementation in part to remediate the known issue. So, whereas the prior function, LowCreatinineTestLowest, identified the lowest creatinine test across the entire encounter, regardless whether or not it was obtained prior to or after the high creatinine test, the updated function, LowestSerumCreatininePrior, constrains the low test to any point prior to the high test. The logic then evaluates for a two times increase over the LowestSerumCreatininePrior to determine whether there is at least a two times increase. Then determines whether the high test result is greater than the Serum Creatinine Normal, which means it's greater than the Patient Characteristic Sex, Male or Female. Finally, the logic ensures that the high creatinine value is obtained during the interval from 48 hours after the start of the Hospitalization With Observation to 30 days or discharge, whichever is sooner. Okay, so that's for staging an AKI. Now, in the next slide…

Slide 34 [00:43:32]

Thank you. We're going to look at the identification of an AKI evaluated in the 'Encounter with 1.5 Times Serum Creatinine Increase' definition. So, similar to the logic to stage an AKI, the logic for identifying AKI was updated to remediate that same known issue. For purposes of the 1.5 times increase, the logic was updated to constrain the evaluation of the low serum creatinine value to the prior seven days from the high value, to within the prior seven days I should say. So, for this definition, the logic first pulls in the qualifying encounter from the Initial Population, then evaluates for the creatinine test, or high serum creatinine value obtained during Hospitalization with Observation. The logic then identifies the lowest serum creatinine test within seven days prior to the high value via function LowestSerumCreatinineWithin7DaysPrior. Note, the measure developer updated the function, which was previously LowCreatinineTestTime, to LowestCreatinineWithin7DaysPrior in the 2026 implementation to, again, remediate the known issue, specifically to ensure that the logic is not only evaluating for the lowest serum creatinine test across the entire encounter, but that it constrains the low test to within the preceding seven days from the high creatinine test.

Okay, moving along, the logic then evaluates for a 1.5 times increase over the lower serum creatinine value, then determines whether the high test result is greater in the serum creatinine normal. And finally, the logic ensures that the high creatine value is obtained during the interval from the 48 hours after the start of Hospitalization With Observation to 30 days or discharge. Next slide, please.

Slide 35 [00:45:36]

All right, that just went through the first of the two Numerator criteria. So, all that said, we'll now move on to the second Numerator criteria. Definition here, 'Encounter with Kidney Dialysis Started More Than 48 Hours After Arrival without High Creatinine', which corresponds to 'c2' for the sample calculation. Okay, so the logic moving down, looking at the arrow pointed down, first evaluates for an 'Encounter with Kidney Dialysis Started More Than 48 Hours After Arrival', the definition for which is nested below. First criteria is documentation of a procedure, code found the HOSPITAL BASED DIALYSIS SERVICES value set. Logic then pulls in the qualifying encounter, definition 'Encounter with Creatinine and without Obstetrical Conditions' where the Procedure starts 48 hours after Hospitalization With Observation. The logic then evaluates for the absence of an acute kidney injury during the encounter. So, WHERE NOT EXISTS 'Encounter With 2 Times Serum Creatinine Increase' during Hospitalization With Observation, i.e,, after first 48 hours and up to 30 days or discharge, whichever is sooner. So, if either of these two Numerator criteria are met, the encounter is included in the Numerator and processing ends. If not, the encounter fails the Numerator. Next slide, please.

Slide 36 [00:47:19]

All right, as alluded to across the last some odd slides, the measure's Denominator, Denominator Exclusions, and Numerator are now defined and we plug those quantities into our sample calculation formula, as we see here. The performance rate aggregates the populations into a single performance rate for reporting purposes. So, in the example we see here, the Numerator, 'c1' plus 'c2', equals 20 divided by the Denominator, 'a', equals 100 minus Denominator Exclusions, 'b1' through 'b6', so six criteria. Here it equals 20 to equal a 25% performance rate. And keep in mind, the lower the rate, the higher the quality. Next slide, please.

Slide 37 [00:48:16]

Okay. So, while the Risk Adjustment Variables are only included in the Narrative of the Flow, thus we didn't review those within the context of the flow. However, when we reviewed the Header updates, we noted the risk model for this measure includes patient sex and age, cancer, diabetes and heart failure present on admission, hypertension and obesity, which are collected along with all diagnosis and present on admission indicators, eGFR rate for females and males, and first vital signs, including first heart rate, first respiratory rate, first systolic blood pressure, first body temperature, encounter length of stay. Now, however, the next two slides focus exclusively on updates by the measure developer, specifically the addition of units to the risk variable definitions for vital signs, which were made to improve clarity. However, before we get into those, along with those definition changes, each of these vital signs entail a function update in which the measure developer changed the result captured as decimal to result captured as a quantity to align with the reporting in other measures. So, just keep this additional change in mind. And that change is located within the functions and the Specification. So, back to the definition changes here. First on the screen here is 'Risk Variable First Heart Rate in Encounter'. The underlined text has been added to indicate that for a Qualifying Encounter, the first heart rate should be reported using beats per minute. Next is 'Risk Variable First Respiratory Rate in Encounter'. Again, added text to indicate that for a Qualifying Encounter, the first respiratory rate should be reported using breaths per minute. Next slide.

Slide 38 [00:50:20]

Okay, so we have now risk factor variables for first systolic blood pressure and first temperature, and these were updated to also include units. So, first, 'Risk Variable First Systolic Blood Pressure in Encounter', added text indicates that for a Qualifying Encounter, the first systolic blood pressure should be reported using millimeters of mercury. Next, 'Risk Variable First Temperature in Encounter', and we added text to indicate if our Qualifying Encounter, the first temperature should be reported using Celsius or Fahrenheit. Of note, as indicated in the measure Header and the Specification, when reporting the first body temperature for risk adjustment, values from either Celsius or Fahrenheit readings are acceptable, but the reporting of Celsius readings is preferred. Okay, next slide, please.

Slide 39 [00:51:26]

All right, so we're going to close out the presentation with a few frequently asked questions, which we've responded to over the course of the last year regarding the 2026 implementation. So, question here is for the Denominator Exclusion of patients with an index eGFR value of less than 60 milliliters per minute within 48 hours of the encounter start, if a patient has multiple eGFR values resulted within 48 hours from the encounter start, does the measure look at the initial eGFR value? So, as you see in the answer, for the Denominator Exclusion definition 'Encounter with Index eGFR Less Than 60 within First 48 Hours', the logic evaluates the index serum creatinine value. As we indicated previously, this index is defined as the lowest serum creatinine value within the first 24 hours of the encounter start. However, if there is no serum creatinine value within that first 24 hours, then the index is the first serum creatinine value within the first 48 hours of the encounter start. Next slide.

Slide 40 [00:52:52]

Okay, finally, we will close with the following. So, starting with the question, "Could you please clarify the difference between the serum creatinine values used to identify the index serum creatinine and those used to evaluate Numerator compliance for identifying and staging an AKI?" So, the index serum creatinine value is used to calculate eGFR value for risk adjustment and to identify Denominator Exclusions. And this value must be resulted within 48 hours of the encounter start. So, important distinction there, within for 48 hours of encounter start. Serum creatinine values evaluated for the Numerator are obtained between 48 hours after the start of the encounter and either 30 days after the encounter or discharge, 30 days after the encounter start or discharge, whichever comes first. Okay, so at this point, that concludes the presentation for the Hospital Harm-Acute Kidney Injury eCQM. I'll hand it back to you, Susan.

Slide 41 [00:54:04]

[Susan Funk] Excellent. Thank you so much, Michael, for leading us through the annual updates, measure flow, and the FAQs. It was so much content, but just as a quick reminder to the audience, this webinar was scheduled to be 75 minutes, so we've got some additional time to get to the questions that were being asked throughout the webinar. Michael, catch your breath for a couple minutes. I'll take over for a few slides before we go into that Q and A segment. So, we've included a couple resource slides here for the audience. The first slide provides links to the eCQI Resource Center, CMS Eligible Hospital Measures page, and the Get Started with eCQMs links. We've also linked to the Teach Me Clinical Quality Language video series, and specifically the video shorts on Hospitalization with Observation and What is a Value Set? Next slide, please.

Slide 42 [00:54:59]

Continuing on with additional resource links on this slide, we've provided the link to the Value Set Authority Center, or the VSAC Support. We've also included the link where you can find information about the Expert to Expert Webinar Series on the Joint Commission's website. And finally, the ASTP/ONC

Issue Tracking System, often referred to as Jira. And this is where clinical and technical questions about these eCQMs should be submitted following this webinar. So, just let me give a little context now about the ASTP/ONC Issue Tracking System. So, the same subject matter experts from the Mathematica team that are on today's webinar are also the same staff that respond to questions posed within that ASTP/ONC Jira platform. So, the Q and A document following this webinar will likely take several weeks, and that's because it requires CMS approval before we can distribute. So, if you need a more immediate answer, please consider submitting your question via that issue tracker with the link on this slide. Next slide, please.

Slide 43 [00:56:08]

Okay, so with all of that said, we'll now be moving into our live Q and A segment. As a reminder for the audience, this webinar is continued to go to 15 minutes past the hour. We'll use this remaining time for the Q and A. I'll just real quick restate the directions. You can submit questions via the question pane. Click the question mark icon in the audience toolbar and that will open a panel for you to type and submit your question. The questions asked during this live event will be addressed in a written follow-up Q and A document, and that follow-up document will be posted several weeks after the event, as I noted earlier, after CMS review and approval.

One more note for the audience before we dive in. Our subject matter experts have been very busy during the webinar trying to respond to as many of your questions as have been submitted. However, there are typically some questions that are very specific to an individual organization or a situation or present clinically complex scenarios, and questions such as those sometimes require additional time and consideration for the response. So, not all questions can be answered today during this live webinar, but the team will work on responses to those for the written document.

We'll now welcome Michael back to share some of the questions and answers that have been submitted throughout the webinar. Michael, whenever you're ready, please jump into the Q and A with the first question you'd like to share.

[00:57:38]

[Michael] All right, thank you. All right, the first question is, "How much does creatinine need to increase to diagnose acute kidney injury for the Hospital Harm-Acute Kidney Injury measure?" So, the Hospital Harm-Acute Kidney Injury measure is looking for a stage two or higher AKI, defined as an increase in serum creatinine at least two times higher than the lowest serum creatinine value and wherein the, sorry, I'm just having a little bit of trouble reading. Bear with me. Okay, sorry. Let me repeat the answer. Measures looking for a stage two or higher AKI, defined as increase in serum creatinine at least two times higher than the lowest serum creatinine value where the increased value is greater than the highest sex-specific normal serum creatinine value.

Okay, so similar question, "How is AKI defined in the measure?" So, the measure defines AKI in two ways. First, as increase in serum creatinine at least two times higher than the lowest serum creatinine value where the increased value is greater than the highest sex-specific normal serum creatinine value, and two, initiation of dialysis that started 48 hours, dialysis more than 48 hours after the start of the encounter. [

Sorry, I'm looking to expand the window for the questions. Okay... "What benchmarks or targets are set for this metric?" So, there's not yet a national average for the Hospital Harm AKI measure. For this measure, a lower measure score indicates higher quality.

And then next question, "Can you define the encounter start time? Does this include time in the emergency department and/or an observation?" This is a great question. So, the answer is the Hospital

Harm-Acute Kidney Injury measure uses the Hospitalization With Observation function to determine the start of the inpatient hospitalization. This function includes ED and observation… encounters when discharge from the encounters and admission to the inpatient encounter is within one hour or less.

Okay, next question. Let's see. "Only those patients that are admitted as an inpatient from either the ED or observation are eligible for the measure, correct? If the patient was discharged from observation, they would not count towards the measure." So, only patients with an inpatient encounter are included in the measure. Time in the emergency department or observation is counted if discharged from these encounters and admission to the inpatient encounter is one hour or less. A patient discharged from observation with no inpatient encounter within one hour of discharge would not be included in the measure

[01:02:13]

"Will the patient be part of the measure population Denominator if patient sex is listed as undetermined in the EMR?" So, patient sex is required for the eGFR calculation of the sex-specific normal serum creatinine value. So, patients with null of patient sex will not be included in the Initial Population. Okay, just a question about the AKI Specification, just in general here, on slide 24, we include the links to both the Measure Specification, Technical Release Notes, as well as the AKI Risk Adjustment Methodology Report. So, in general, the eCQM Specifications can be found at the eCQI Resource Center. I will add a note, it's important to toggle by the applicable year reporting period that you are looking for specific implementation.

Okay, next, "If the patient has a less than 60 eGFR within the first 24 hours, but also has a normal value, would that exclude the patient from the Denominator?" Now, inpatient hospitalizations for patients with the index eGFR value of less than 60 milliliters per minute within 48 hours of the encounter start are excluded.

Okay. Just bear with me a moment. Okay… I'm sorry, I'm just ensuring I'm capturing… Okay, "On slide 32, Does the patient need to meet all logic to be in the Numerator?" Okay, so slide 32, can we are we able to quickly go back to slide 32? If not, we're talking about the Numerator criteria here, I think specific to the encounter with two times, so yeah, 'Encounter with 2 Times Serum Creatinine Increase'. Thank you. So the answer here is no, a patient could qualify for the numerator in two ways. So, as we discussed, I think a prior question here, so there's a subsequent increase in serum creatinine value at least two times higher than the lowest serum creatinine value and the increased value is greater than the highest sex-specific normal value, or can't see the rest of the slide, but if we look at, can we scroll, I don't know, maybe slide 35? Kidney dialysis was initiated. Yeah, thank you. 'Kidney Dialysis Started More Than 48 Hours After Arrival Without High Creatinine'. So, it's either 'Encounter with 2 Times Increase in Serum Creatinine' or 'Encounter with Kidney Dialysis Started More Than 48 Hours After Arrival without High Creatinine'. Either these two criteria will have the encounter meeting the Numerator criteria. All right.

"For slide 34, does it mean highest value for the high creatinine?" So, here we're looking at, I believe, the logic for 'Encounter with 1.5 Times Increase in Serum Creatinine'. So, staging. Yep, so staging AKI. So, the measure is looking for a stage two or higher AKI defined as an increase in serum creatinine at least two times higher than the lowest serum creatinine value where the increased value is greater than the highest sex-specific normal serum creatinine value. So, that's applicable to the 1.5 times identification of an AKI as well.

[01:07:21]

[Susan] Michael, I'll just jump in for a second. I think we've got time for another maybe two to three questions. I'll let you pick which ones, but we're coming close to the end time, but I'll let you select which ones you think are the most important.

[Michael] Yeah, yeah, thank you for noting that. Okay, I may have missed the answer to this question. "Is comfort measures or hospice order obtained within the first 48 hours as an exclusion?" So, hospice and comfort care are not exclusions for this measure.

More of a question regarding when the slides will be shared. So, the slides are available now and to access the slides in the viewer toolbar, click the document icon, select the file name and the document will open in a new window. You can print or download and save the slides. Okay, let me see.

Okay, just acknowledge a typo on slide 37 regarding first respiratory rate. It should say 'report respiratory rate'. Measure logic states qualifing encounter respiratory rate as reported as breaths per minute. I think that is it.

[Susan] That's great. As I mentioned earlier, I know some of these have very, very specific clinical scenarios that are sometimes a little bit more difficult to just quickly convey during a live webinar. So, I think we'll move on to the closeout. And Michael, thank you so much. And Jessica, thank you for being able to navigate to the earlier slides to illustrate some of Michael's points. That was very helpful. Okay, so just to reiterate my earlier note that the questions that we shared aloud and those that we didn't address during today's broadcast will be included in that written Q and A document that will be available in several weeks. So, as I've said a couple times, CMS needs to review and approve it first, so if you need a quicker response, please use that ASTP/ONC or Jira Issue Tracker. That's another mechanism where you can ask a question with a more timely response. And that link was shared earlier within the resource slides. Next slide, please.

Slide 44 [01:10:10]

And this gets to the point that Michael just iterated in the the questions where you can get the slides. So, all previous Expert to Expert Webinar recording links, slides, and transcripts can be accessed on the Joint Commission's webpage via the link that we've displayed on this slide, and it's available within the the PDF that any of you have downloaded. If you scroll down, you'll need to use the checkbox to sort for the Expert to Expert Webinars. Within a couple weeks, the recording and those materials will be posted on the site and also on the eCQI Resource Center. After this webinar, if you have any questions about webinar operations or about obtaining your Continuing Education credit, you can submit them via email to tjcwebinarnotifications @jointcommission.org. And for those of you that might have missed any of the webinars in this series, we've included a handout that has the recording links that are available for the first eight webinars, and the rest are coming soon. So, please share that document with your colleagues that might have missed some of the webinars. Next slide, please.

Slide 45 [01:11:20]

Before this webinar concludes, just a few words about the survey. We use your feedback to inform future content, determine the education gaps, and assess the quality of our educational programs. A QR code will appear on the next slide. You can use your mobile device to scan and access that survey. If you prefer to take the survey later, an automated email will also deliver the link to that survey and that email will come one hour after we end today's broadcast. After you complete the survey, you will be redirected to a page from which you can print or download a blank certificate that you complete by adding your own name and credentials. In case you miss that opportunity to download, an automated email will also be sent to you from the survey platform that includes the link to that certificate. And now our final slide.

Slide 46 [01:12:16]

So, we will leave this slide up for a few moments so that participants can scan that QR code. Thank you so much, Michael, for presenting the annual updates and facilitating the Q and A segment. Many thanks to the Mathematica subject matter experts for responding to the questions throughout the webinar and also for your partnership on this series. My appreciation also goes out to the operations staff that supported this webinar series for the 2026 reporting year. And finally, thanks to all of you in the audience that joined us today and for any of the webinars in this series. This concludes our presentation. Have a great day. I will just pause here for another maybe 10 seconds or so, so people can scan that QR code. Everyone have a great day.