Transcript

Pioneers in Quality – Expert to Expert Annual eCQM Update Series

VTE Measures On-Demand Webinar

October 2020

0:01
Thank you for joining us for our Pioneers in Quality On-Demand Webinar Series Expert to Expert 2020 eCQM Annual Updates for the 2021 reporting period.

0:13
This series is brought to you by The Joint Commission, the Centers for Medicare & Medicaid Services, and Mathematica Policy Research.

0:21
This on-demand webinar series will offer continuing education credit. This webinar series addresses changes that occurred during the 2020 eCQM Annual Update Cycle for the STK and VTE Measure sets, PC-05, and ED-2.

0:39
We will also be offering a session that provides an overview for a new measure – The Centers for Medicare & Medicaid Services' Safe Use of Opioids - Concurrent Prescribing for the 2021 reporting period.

0:51
Each session will also include a segment during which the measure leads will respond to common questions from Jira and other sources, so make sure to stick around for the end of the session to hear all of the Q&A.

1:02
You can access these sessions by visiting The Joint Commission webpage and also the eCQI Resource Center under the general eCQM and eCQI page.

1:13
Also, new to this webinar series are a series of supporting educational video shorts that address the more basic components of eCQMs and CQL. Most sessions are approximately two minutes in length.

1:26
These videos can be viewed anytime, so whether you're in need of a refresher or if you're new to the eCQM landscape, it takes less than 20 minutes to watch all five video shorts.

1:37
These videos can also be accessed on The Joint Commission website as well as on CMS' under the same general eCQM and eCQI education page.

1:48
Today's session will focus on the eCQM annual updates for the VTE measures.

1:54

Before we start, we'd like to offer just a few tips about webinar audio. Use your computer speakers or your headphones to listen. Feedback or dropped audio are common for streaming video. Refresh your screen, if this occurs. You can pause the playback at any time.

2:11
If you'd like to follow along and take notes, you can access the slides now within the viewing platform, see the left side of your navigation pane, and select the icon that looks like a document. A new popup window will open, and you can select the name of the file.

2:27
A new browser window will open, and from it, you can download and save or print the PDF of today's slides.

2:35
The slides will also be posted on the Joint Commission's website at this link [https://www.jointcommission.org/measurement/quality-measurement-webinars-and-videos/ and look under the Expert to Expert section].

2:40
As noted in the introduction, CE credits are offered for this on-demand webinar series.

2:47
This webinar is approved for one Continuing Education credit for the Accreditation Council for Continuing Medical Education, American Nurses Credentialing Center, American College of Healthcare Executives, the California Board of Registered Nursing, and the International Association for Continuing Education and Training.

3:08
Continuing education credits are available for this on-demand webinar for six weeks following its release date. To claim credit, you must have individually registered for this recorded webinar, listen to and/or view the entire recorded webinar, and complete a post program Evaluation and Attestation.

3:32
A Program Evaluation Survey and attestation link will available at the end of this recording.

3:41
When you complete the online evaluation survey, after you click “Submit,” you will be redirected to a URL from which you can print or download and save a PDF CE certificate; an automated e-mail will also include a link to the PDF CE certificate.

3:58
For more information on the Joint Commission's continuing education policies, visit the link shown on this slide.

4:04
At the end of this webinar, participants should be able to:

- apply concepts learned about the logic and intent for the VTE eCQMs
- identify common issues and questions regarding the VTE eCQMs and
- prepare to implement the VTE eCQMs for the 2021 eCQM reporting period.

4:26
The following staff and speakers have disclosed that neither they nor their spouses or partners have any financial arrangements or affiliations with corporate organizations that either provided

educational grants to this program or may be referenced in this activity: Susan Funk, Yanyan Hu, Karen Kolbusz, and Mia Nievera.

4:47
I'm Susan Funk, Senior Research Associate and the Lead Operations Staff for Pioneers in Quality.

4:52
Hello. I'm Yanyan Hu, Associate Project Director at The Joint Commission on the eClinical Team and the technical lead for the VTE measures.

5:03
Hello. I'm Karen Kolbusz, an Associate Project Director at The Joint Commission on the Clinical Team and the clinical lead for the VTE measures.

5:13
And I'm Mia Nievera, Project Director for the eClinical Team.

5:19
On Today's session, we will review the measure logic with a primary focus on what's new for 2021. Team, take it away.

5:27
Well, good afternoon, everyone, today we will talk about VTE 1 and VTE 2, specifically reviewing the electronic clinical quality measure specifications for the measures.

5:40
VTE-1 measures the number of patients who received VTE prophylaxis or have documentation why no prophylaxis was given from arrival to the day after admission or surgery end date.

5:55
The VTE-2 measure is essentially the same measure as VTE-1, but it focuses on patients with an initial admission to the intensive care unit or patients who have been transferred to the ICU unit.

6:10
Hospitalized patients are high-risk for developing VTE, which includes both thrombosis in a deep proximal leg vein or a pulmonary embolism.

6:22
VTE prophylaxis is a critical action step to reduce the incidence of VTE and improve patient safety in hospitals. But despite its proven effectiveness, the rate of prophylaxis remains less than optimal for both medical and surgical patients. Development began in 2010 to re-engineer [the chart-based measures] as electronic clinical quality measures and then, in 2015, we (after several iterations of the measure specifications) we did open up the measures for voluntary data submission.

6:54
In 2016, CMS required eCQMs as a mandatory requirement for inpatient quality reporting.

7:04
In 2019, most recently, we did have a technical advisory panel meeting, and we reviewed the specifications that were in place for the eCQMs

In 2019, or really, 2020, when the news broke, we all know about the pandemic and how COVID-19 has rocked our society.

7:25
It really has made those measures even more relevant, because we know that the virus does impact the blood vessels, causing inflammation of the blood vessels, and we see an increased incidence of

thrombotic disease in patients that are COVID positive, whether that be DVT or PE. So currently the measures are very relevant clinically. Guidelines have been updated over time, but the basic recommendations are still in effect. And with that, I'll turn it over to Yanyan Hu, who will take you into the electronic specifications. Yanyan.

8:07
Thank you, Karen.

This is the initial patient population for VTE-1 and -2, both VTE-1 and VTE-2 measures share the same initial population.

And it reads, “patients age 18 and older discharged from hospital inpatient acute care without a diagnosis of VTE, or obstetrics, with a length of stay less than or equal to 120 days, that ends during the measurement period.”

The following expression helps us define those statements in the measurement logic.

8:46
The logic is looking for an inpatient encounter that does not have a counter diagnosis of obstetrics, VTE, or obstetrics VTE, and the encounter diagnosis is an attribute of the “encounter performed” data type. So the timing is not important, because it is already tied to the counter. For the 2021 reporting year, we added code as a component to attribute of encounter diagnoses according to the QDM version 5.5.

9:23
Once a patient qualifies for the initial patient population, the process moves to the denominator. Although VTE-1 and VTE-2 have the same initial population, the denominator changes between those two measures.

In VTE-1, the denominator includes all patients in the initial population. For VTE-2, the denominator is refined to include only direct admit or transfers to ICU anytime during the hospital stay.

Let's talk about VTE-1 - VTE Prophylaxis. The denominator reads “all patients in the initial population.” Because the denominator does not change from the initial population, we can simply call it “the initial population” as that definition. No changes were made to the 2021 reporting year.

Moving on to the denominator exclusions.

10:27
The union operator allows for any one of these conditions to meet the denominator exclusions.

No changes have been made to this definition for 2021 reporting year.

Looking at the first exclusion, encounter of less than two days, these were no changes to this definition for the 2021 reporting year.

Looking at a second exclusion, encounter with ICU location stay one day or more, we did not make any changes to this definition for the 2021 reporting year.

We use attributes, facility locations, code and the facility location period to identify an ICU stay.

The logic is looking for a qualifying encounter that has an ICU stay greater than or equal to one day when the ICU location starts the day of/day after encounter starts.

In the third exclusion, “encounter with principal diagnosis of mental disorder or stroke,” for the 2021 reporting year, we have removed principal diagnosis attribute and is now presented with the attribute of “rank and code” as components of the encounter diagnosis.

11:55
Rank = to one, defines the principal diagnosis as the “encounter diagnosis.”

Moving to the fourth exclusion, “Encounter with principal procedure of SCIP VTE Selected Surgery.” For the 2021 reporting year, we have removed ordinality in “principal” from procedure performed datatype and added rank = 1 to define the principal procedure.

In the fifth exclusion, “intervention comfort measures on the day of, or the day after start of hospitalization,” we did not make any changes to this definition for the 2021 reporting year

12:39
As a refresher, the logic used “coalesce” to look for two timestamps.

First, we look for “relevant period” from “intervention performed.” If “relevant period” does not exist, then the logic looks for “author date time” when the comfort measure was documented.

Then, we are looking for the comfort measure to occur any time, from date of the start of a hospitalization to the day after admission timeframe.

The last exclusion is, “intervention comfort measures on day of or day after procedure.”

The logic is looking for comfort measures to be performed or documented one day or one calendar day after surgery ends. We did not change anything to this definition for 2021 reporting year.

13:37
The Numerator logic is looking for a patient who has either qualifying diagnosis OR qualifying surgery, received Medication Oral Factor Xa inhibitor on the day of or day after admission, or procedure which are broken down into 5 conditions. If any of these are satisfied, the patient will be in the numerator population.

If you compare those two numerator statement boxes, the red indicates the change for the 2021 reporting year.

14:17
We have updated the timing criteria for the 1st condition “VTE Prophylaxis Received From Day of Start of Hospitalization To Day After Admission or Procedure”.

The 2nd condition is looking for Inpatient hospitalizations for patients who received Oral Factor Xa Inhibitor. Notice the “intersect which means they must also have a diagnosis of afib or VTE OR a hip or knee replacement surgery.”

Conditions 3, 4, 5 are looking for reasons why a patient did not receive VTE prophylaxis. The first part of the numerator focus is on inpatient hospitalization for patients who receive VTE prophylaxis.

15:12
The first change for the 2021 version is that we've added a new value set of Rivaroxaban and Betrixaban for VTE prophylaxis to be eligible medications due to FDA updated guidelines.

One change for 2021 version here is VTE prophylaxis timing. The measure intent is looking for “VTE prophylaxis was given on the same day of admission day including prior to admission time.” In 2021 reporting year, if any of these interventions, whether mechanical or pharmacological, was given any time from date of start hospitalization to the day after admission, it will satisfy the numerator.

And you will notice we use the function from “day of start of hospitalization to the day after admission” here.

16:15

By using “union,” the measure is looking for VTE prophylaxis to start during day of or the day after end of procedure and that the procedure ends one calendar day after start of encounter.

We use the “calendar day of day after” function here.

Within the second condition, we have three definitions. There have not been any concept changes to those definitions for 2021.

First, the condition is looking for medication, or a factor of 10a inhibitor administered on the day of, or day after admission, or procedure.

Secondly, we look for history, or concurrent Atrial Fib, or history of VTE. For 2021, we add code to encounter diagnoses attribute.

Last, we evaluate if a hip replacement surgery or knee replacement surgery was performed on or before the end of encounter. No change is made to this definition for this year.

17:32
Moving to the third numerator condition. We transition the focus to patients who have a reason for no VTE prophylaxis.

This condition of low risk for VTE, or anticoagulant administered, is unioned into two definitions, using two timing conditions from the start of hospitalization two days after admission, and date of or day after procedure.

In the definition, low risk indicator for VTE. The logic is evaluating if the patient is a low risk for VTE through an assessment, a lab test, or because the patient is currently on anticoagulant for VTE.

A change for 2021 is the “low risk datetime” variable, which is used as a time-stamp placeholder to represent that patient has a low risk for VTE.

The indication of a low risk for VTE can be generated from a VTE risk assessment, an INR laboratory tests the result greater than 3, or anticoagulant medication administration.

18:55
The logic allows time stamps from any of three options to fill in that “low-risk datetime” variable to meet the condition.

In this logic, we pulled in the previous definition and add timings where any of low [risk] VTE assessments or medication administration has to be done during any time, from the start of hospitalization to the day after admission, or on the day of, or day after the procedure. And that procedure, ends the day after hospital admission, same timing condition, we just previously discussed.

For 2021 year, we used a new variable, “low-risk datetime” for timing comparison.

19:48
Moving to the fourth numerator condition, the “no VTE prophylaxis due to medication reason.”

At a high-level, a clinician needs to address a medical reason for both pharmacological and the mechanical VTE prophylaxis not done. So we use “intersect” to satisfy all these conditions to pass the numerator.

This is no concept change for 2021 year. We “union” those two timing conditions from date of startup hospitalization to day after admission and the day of/or day after a procedure, where any will satisfy the numerator.

Let's start with pharmacological VTE prophylaxis. The logic is looking for a medical reason why any of these highlighted medications were not given or ordered. For 2021 year, we've added Rivaroxaban and Betrixaban for the VTE prophylaxis value set for “not administered” and “not ordered.”

20:55
We use the “negation rationale” attribute, which looks for a medical reason why VTE prophylaxis was not done.

We use the “author date time” attribute so that documentation must occur during from day of start hospitalization to day after admission.

Now let's talk about mechanical VTE prophylaxis. No changes were made to these conditions.

The logic is looking for any devices not applied or ordered from the date of start of hospitalization to day after admission.

Moving to the next set of definitions. Again, no changes were made. And we use the same “medications and devices not given” concept.

However, this has to be documented on the date of/day after procedure, and that procedure must end one day after hospital admission.

In the last numerator condition of “no VTE prophylaxis due to the patient refusal,” no changes were made to these definitions. And just like the medical reason, this looks for a “patient who refused” as the reason for VTE prophylaxis not being done with the same two timing conditions from date of start of hospitalization to day after admission and the day of/or day after procedure.

22:32
No changes were made to these definitions.

But one thing to note here is that either “medication not done,” or the “device not done,” will pass a numerator, unlike the medical reason, which requires both.

Next, let's move on to VTE-2 - intensive care unit VTE prophylaxis. Again, the yellow boxes are the definitions from initial population.

Since we already know that VTE-1 and VTE-2, already have same initial population, we can go directly to the denominator population. No changes were made to the VTE-2 denominator.

The denominator is refined to include only direct admitted or transferred to ICU anytime during the hospital stay.

We used attributes, “facility location” codes to specify “intensive care unit in ICU stay” must be during qualifying encounter period.

23:44
Moving to the VTE-2 Denominator Exclusions.

By using “union,” if a patient meets any one of these four conditions, the case will be excluded from denominator.

Please note, we have not made any concept changes to the exclusions for the 2021 reporting year.

Again, noting that there are no changes for 2021, in this first exclusion, we use the global function “length in days” to calculate hospital stay.

If inpatient hospital stay is less than two days, it will be excluded.

24:29

The second exclusion, “first ICU stay with principal procedure of SCIP VTE selected surgery.” In any of these, procedures must end on the day of/the day after the start a first ICU. A change was made to replace ordinarily in principal with a rank = 1 for 2021 year.

It is important to note that these three functions together define the start date time of the first ICU.

New for 2021 reporting year is that, “global first inpatient intensive care unit” function. This function was just moved from the VTE Library to the Global Library.

So no content change, just a definition location change.

Moving on to the next exclusion. No changes were made to these definitions.

This intervention “comfort measure” exclusion is the same, in VTE-1, with exceptions to the timing conditions.

25:43
This is using a function to look for comfort measures to occur from the start of hospitalization to the day after first ICU.

In the last exclusion, no changes were made. This concept was also reviewed in the VTE-1 logic.

The difference here is the timing condition, where we're looking for comfort measure to occur on the day of, or the day after procedure that ends one calendar day after the start of first ICU.

Now, moving on to the VTE-2 numerator.

If a patient meets any one of these five conditions, the case will be in the numerator.

Please note, we have not made any concept change to 2021 reporting year. Here is a comparison of VTE-2 to VTE-1

We use the same clinical concepts, but have different timing conditions, where VTE 2 is about the first ICU stay.

26:57
So, for the remaining of the presentation, we will only focus on the timing constraints. In the first the numerator condition, there are two different timing conditions that are unioned together. So, either timing condition will satisfy the numerator.

The first timing condition is looking for “VTE prophylaxis must occur on the day of or the day after, start of first ICU.”

The second condition is looking for VTE Prophylaxis to start during the day of or the day after the end of the procedure, and that that procedure ends one calendar day after the start of first ICU.

For the 2021 reporting year, no concept of change was made. However, like VTE-1, there was an additional value set included for the “VTE prophylaxis medication administered, or device applied” definition.

Here is the new value set of Rivaroxaban and Betrixaban for VTE prophylaxis, which was also added to “no VTE prophylaxis by medication administered or device applied definition.”

Within the second numerator condition, we have the three definitions.

28:24
We will begin with “medication oral factor Xa inhibitor administered on the day of/a day after first ICU stay, or procedure.”

In this logic, we were looking for the oral factor Xa inhibitor to be administered on the day of/a day after first ICU stay or procedure. That procedure ends one day after day of the first ICU.

There are no changes for 2021.

The second definition is “encounter with prior, or present diagnosis of Atrial Fib, or VTE.” This is exactly the same logic as VTE-1, which is looking for history, or concurrent Atrial Fib encounter, a diagnosis of Atrial Fib, and the History of VTE diagnosis. There are no changes for 2021.

The third definition is “encounter with prior or present procedure of hip or knee replacement surgery.” No changes were made here.

29:37
This is also the same logic as VTE-1, which is looking for a hip replacement surgery or knee replacement surgery performed on or before the end of the encounter.

Moving into the third numerator condition, same as VTE-1, we transition to focus on patients who have a reason for “no VTE prophylaxis.” No changes were made to this definition.

This condition of “low-risk for VTE, or anticoagulant administered,” is unioned into two definitions, using two timing conditions, from start of hospitalization to date after first ICU stay, and day of/day after procedure.

Either one of these timing conditions will satisfy the numerator.

In the first timing condition, we use “interval” to define the time period between start of hospitalization to one calendar day after first ICU starts.

30:53
So, any of the low VTE assessments or medication administration, should occur anytime from the start of hospitalization and the day after first ICU stay.

For 2021 year, we use the same low risk date time variable described in the VTE-1 logic for the VTE assessment timestamps. In the second timing condition, any of the low VTE assessments or medication administration should occur on day of or day after procedure, and again that procedure ends one day after day of first ICU.

Again, also noting that there is no change for 2021. Moving to the fourth numerator condition “no VTE prophylaxis due to medical reason.” Again, noting that there are no changes for 2021.

We're looking for a medical reason for both “pharmacological and the mechanical VTE prophylaxis not done.” So “VTE prophylaxis medication not done” and a “device not done,” should occur anytime between start of hospitalization and the day after first ICU stay or both of them should occur on the day of/day after procedure.

32:23
OK, in the last numerator condition, we use the same timing conditions again, but, here, we are looking for a patient refusal, reason for either “medication, not done,” or the “device not done.”

Also, no changes were made for 2021. No changes were made for the denominator exceptions, but I wanted to note the difference between an exclusion and exceptions. An exclusion is processed before the numerator. So a patient is excluded and never in the numerator. An exception is processed after the numerator.

So if a case fails the numerator, that means the denominator exception, it will be excluded from the measure. So in this instance, a patient with first ICU stay less than one day will be excluded from the measure.

And that concludes our measure review.

Stay tuned for the Q&A, where I ask our measure leads questions from Jira.

33:57
So, for our first question, I want to go back to something you mentioned in the presentation, Yanyan, about the new function for 2021 from day of startup hospitalization to day after admission. Can you talk a little bit more about the impact of this function?

That's a great question.

First of all, the VTE prophylaxis that were given in the ED or in the observation will count to meet the numerator.

And here is the illustration of the time frame from day of start of hospitalization day after admission.

In this function, we use global function named hospitalization with observation here to set a time frame between a date of arrival, and a calendar day after admission.

Right, that makes sense. So with this function, what's the clinical impact, or the reason for adding this, this year?

35:11
We kind of extended the time frame to allow more patients [to be] eligible for the VTE prophylaxis timeframe.

So by using this new function for VTE prophylaxis, we are expecting more patient population included in the numerator population.

Sounds great, thank you.

And here's our next question.

35:50
Okay, so for our next question, not necessarily new for 2021, but it was a change, and this is regarding the low risk date time variable. Yanyan, can you explain what the purpose of using this variable is?

Good question. Yes. This is new for 2021 reporting year, the variable, low risk datetime is used as a timestamp placeholder for three timestamps, which are VTE risk assessment, relevant datetime.

INR laboratory test greater than three result datetime and anti-coagulant medication administration start date.

So, it allows for three different timestamps to fill in the low risk datetime variable to do further evaluation on whether or not the patient is in a low risk for VTE.

36:58
I see that makes sense. Okay, so the variable then allows for a time-stamp from either of those options to identify that a patient is in low risk for VTE.

Correct.

And here's our next question.

Does patient refusal need to be addressed for both pharmacological and mechanical prophylaxis?

I can take that one, Mia and it is a frequently asked question, probably because we require reason documentation for both pharmacological prophylaxis and mechanical prophylaxis when they are not administered.

37:56
However, in the case of patient refusal, if the patient refuses, either pharmacological or mechanical prophylaxis, [then] it is an acceptable reason for no VTE prophylaxis, and a one-time refusal of any form, pharmacological, or mechanical, would be sufficient.

Okay, great, well, thank you for that and here's our next question.

So, Karen, if a patient was taking a DOAC, like apixaban or rivaroxaban - tongue twister - prior to hospital arrival, will that count as a reason for no VTE prophylaxis?

Yeah, that's a great question. And we do receive more questions regarding the direct oral anticoagulants, which are these oral factor Xa inhibitors, such as apixaban and rivaroxaban, because they have been increasing in use over the last several years.

But unlike Warfarin, these DOACs, which is kind of the short name for them, must be taken daily to maintain an anticoagulant effect, and they should be continued during the hospitalization unless there is a reason for discontinuation. So a prior history of taking a DOAC is not a reason for no VTE prophylaxis.

39:30
Thank you.

And here's our next question. So Karen, I have one last question for you in light of the pandemic. How does the higher doses of pharmacological prophylaxis being used for COVID-19 patients impact the measure, if at all?

Yeah, that's a great question. And we are receiving more questions these days related to the COVID-19 pandemic and how it may be impacting practice patterns in the hospital, one of which is, as you mentioned, Mia, pharmacological prophylaxis and higher doses being given to the COVID patients. The COVID virus has been found to cause inflammation of the blood vessels and patients who test positive are at an increased risk for developing a deep vein thrombosis or pulmonary embolism. So higher doses of pharmacological agents may be indicated for these patients.

40:41
Yes. You know, in terms of the eCQM measure intent, the COVID patients will be evaluated the same as other inpatients.

Yes, I agree with you Yanyan, that patients who test positive for COVID can be accommodated by the current specifications. If prophylaxis is administered on arrival, or by the end of the day after hospital admission or surgery end date if the patient did undergo surgery that starts the day of or day after hospital admission.

Great. Thank you, Karen and Yanyan and for answering our questions today. This concludes the portion of our Q&A.

Thank you, Mia.

41:31
Measure specifications and other eCQM resources can be accessed through the eCQI Resource Center. It is a one stop shop for all things eCQM.

For eCQM-related questions, submit a ticket through the ONC Jira platform. The CMS blueprint provides additional guidance for eCQMs.

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42:21
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42:59
An automated e-mail will also be sent to you that includes the link to a printable and downloadable PDF CE certificate.

43:11
Thank you to our presenters and thank you for participating in this webinar.