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Speaker: Brian Willis

Hello, thank you for attending today's webinar. Before we begin, we would like to cover some housekeeping items. You can expand each widget by clicking on the maximum icon to the tart -- top right. This webinar is being recorded. The recording won't be available until one day after the webcast. If you have any questions, you can click on the Q&A widget to submit your question. Will address as many questions as possible during the event. If a fuller answer is required, we do capture all questions. If there any technical difficulties, please click on the help widget. You can use the Q&A to address technical issues. I would like to pass it off to Shanna Hartman. Shanna, you have the floor.

Speaker: Shanna Hartman

Thank you and welcome everyone to today's electronic clinical quality measure, Clinical Quality Language for eligible professionals and clinicians. My name is Shanna Hartman and I will be presenting today along with Bryn Rhodes.

At the end of today's session, you will be to understand the concepts about new clinical quality language or CQL or CQL expression language for the eCQM performance period and know where to find additional resources and ask questions about eCQM and CQL logic.

Thank you. CQL is an international HL7 standard designed to unify the expression of logic for eCQM and treated -- CQL to improve the accuracy and clarity of eCQM. Some of the benefits of CQL include improved expressivity, more precise and unambiguous logic, you can share logic between measures and logic with decision support, it can be used with multiple information data models and simplified test engine implementation.

Following completion of testing and input from the vendor in our communities, eCQM and CQL will be transitioned to use the clinical quality standard for logic extraction. The transition began with a calendar the -- year 2019 reporting period for eligible hospitals, critical access hospitals and the 2019 performance period for eligible professionals and collisions in the hauling programs. A hospital inpatient quality reporting program, Medicare and Medicaid promoting interoperability. And the quality program. An advance alternative payment models such as the comprehensive primary care plus program. To support this transition, CMS published is eCQM in this past bring of 2018. At this time, I will hand the presentation over to Bryn Rhodes to go into what is CQL.

WHAT IS CQL?

Speaker: Bryn Rhodes

Thank you. Welcome everyone. Thank you for joining. I'm excited to be able to present on this topic. I've been part of the development of clinical quality language for several years. It's exciting to see being used to share quality measures specifications. During his presentation, we will look at what a few examples of CQL as it appears in the quality measures. First I would like to start by answering the question, what is CQL? What is the context and background?

So, to answer the question what is CQL, I would like to step back. I would like to ask another question what is quality? This definition comes from help quality measures. It is a quantitative tool to assess performance related to a clinical process structure outcome. So, will meet about what a quality measure is and how to describe it? One of the things we're interested, especially in terms of performing that measurement over a broad range of systems and environments, is communicating the definition of the quality measure. One way to communicate is through narrative description that explains the natural language what is being measured. What patient or clinical information is involved or what is inclusion or exclusion and have a calculation of the metrics should be performed. Narrative descriptions of quality measures are good. But electronic representations are better. We can get more formal descriptions that can be more readily consumed and implemented. This helps with precision of measurement and clarity and communication of the intent. So, that Lisa question what is an electronic clinical quality measure? That is the chronic representation of the measure to allow the measure to be evaluated automatically. It describes the intent and both the data involved in the relationships and criteria that's behind it.

So, in fact, eCQM carried a complete narrative description as well is the machine-readable representation. Let's take a look at a snippet of narrative from the medication document. This is the overall description of the measure, percentage of visits, the professional test and I commence a list of current medications. This narrative description is useful for communicating the overall intent. There are lots of details that may be drawn out.

Who said it, what did they say, who supports it? That is metadata about the measure. There are questions about the content of the description. So, what kinds of things doesn't talk about? We're talking about prescriptions over the counters, herbals, a list of medications we need to know the dosage of. We also need to know to the frequency of those types of things. That is the data model. And then what are the relationships between them? How is that related, what is the patient's age, what is the criteria that applies? That is the logic. We think of those three buckets of information that are represented in a quality measure. If we look at specifications that are used to communicate a eCQM. Metadata categories are covered by the health quality measures format whether that be the document that contains all of the information about the structure of the measure, what is the numerator, what is the denominator, what is the data criteria involved? And for the data model, we use quality data models in previous years to represent the data model and logic. In this view approach, we have taken the logic versions out of quality data models and put them in to a specific clinical quality language that focuses on representation of logic. We still use quality data models to specify the data involved in the measure. >> Speaking about data models specifically, QDM is a way to specify clinical state. It starts at the higher level with categories of information such as laboratory tests, diagnostic studies and encounters. QDM defines different context for those categories, the category in contacts are combined to talk about things like medications administered, encounter performed. From there, their combined 28 particular terminology to let us say what kind of information we're talking about, for example, we use terminology to specify ties a peen for a medication prescribed. Will speak more about terminology. But, finally for each data element, we will talk about the attributes. So, pieces of information that are contained with that data element.

For example, in an encounter performed, QDM defines it encounter performed as a document of the encounter indicated by the QDM category and its corresponding values which have been completed. And in encounter performed has the following attributes. It has things like Relafen period, principal diagnosis and we will note for those familiar with the previous versions of QDM, the relevant period replaces the admission time and discharge time attribute. It is so as an air goal. This attribute is an interval value attribute that has both a start and stop time. We will look more at those later when we start looking at the CQL. Note the ID attribute. We want to talk about specific instances of the QDM element and the code attribute which talks about the terminology for the specific data element including the ability to directly reference the code. We will look at that more. There's one more thing to call out, there are plural attributes, they have more than one down. Diagnoses is an example where there may be multiple diagnosis codes associated with this encounter, diagnosis allows you to talk about both of those.

As we think about what it takes to actually share the logic involved a specification of a quality measure, the first thing we do is separate the description of the terminologies so this focus on the terminology. The description of the data model, and the description of the logic. Because of the separation we can isolate the impacted changes on these different specifications. For example, we can introduce knew operations into the logic without having to change quality data models. We can introduce changes to quality data models without having to change the logic specification. And just like QDM can reference different terminologies, CQL can represent data models as well as data terminology.

So then CQL is a center languished to share precise, human and machine readable user definition. Although we have described CQL as a quality measure, we can describe the logic involved in sharing decision support. Okay, with that background, for what CQL is, we will switch gears and take a deeper dive into what CQL looks like and how it is being used. Most of the examples will look at come from the same measure, CMS-68. We will look at some others to give you a sense of the different constructs you will encounter in CQL for measures. This is a population criteria section of CMS-60. Documentation of current medications in the medical record. It is a proportion measure so we see the typical criteria sections, initial population, the numerator and denominator. One thing to notice is the numerator is referring to a single definition but with a meaningful name, medications documented during the qualifying encounter. So the CQL measures can use definitions to build a population criteria, the authors can give those definitions names to capture the meaning of the expressions they represent.

CQL uses definitions like holding blocks. They use one definition to build upon another and another. They pick a visual representation, the generic patient population that the machine can populate. Each block represents a definition, each definition addresses a specific population parameter. At the base of the diagram, the largest bloc, the largest population as indicated by the icon, A equals encounters. In this logic, we are looking for specific encounter type encounters which medication should be documented for example. Moving up to block B, we don't need to repeat the encounter logic, we call in definition A. And then for definition B, the age, such as the patient is 18 or older. Moving up to block C, we call up definition B. The pattern will build off each definition by adding each criteria. Each successful definition will note on the patient population. At the top level, all the criteria from definition A and B and it becomes a numerator definition. In case you're wondering why not write the logic where the sea equals the encounter and I committed to one statement, that's a question that we follow the

methodology of using blocks of the definition. It's cleaner to read and it allows us to reuse the definition throughout the special specification. Through the use of the names, it allows the major authors to communicate intent of the expression.

In concrete terms, CMS-60 starts with qualifying encounters during the measurement period. It adds H criteria in the initial population. And then and that's criteria for medication, documented during qualifying encounters. Then as you saw on the population criteria, the measures issues is that is expression -- expression directly as a numerator.

So, let's look at the Nnadi -- anatomy of the definition. The definition has a name in CQL. It is a unique identifier within the library. As an expression. The expression is the contents of the definition. This expression can reference other definition to build complete definitions. Note that the libraries in CQL are groups of definition. Measures can use a library to define the population criteria. It can also share these libraries between different measures to understand criteria. It can be used in different quality measures such as -- as is appropriate.

Looking specifically at expressions, what do we mean? They are strings of CQL that are made up of values like numbers, quantities, operators like less than or equal to, during identifiers like medications encounters, CQ allows these components to be combined according to the rules of the language. This adds two numbers together to get another numbers so they will produce a result. For example, 2+2 is an expression and the result is 4. For this example, we're treating encounters that of the code in the medication encounters value set. And that is during the measurement period. We will begin to that. First, let's look at an important kind of expression that is a clarity. Queries allow you to operate on a list of values so you see list of encounters or lists of lab orders. This expression of a query, you can tell because the query starts by introducing the source and then gives it an alias. The alias is qualifying encounter and that name can be used in the core to refer to the elements within the source. So the source can be used in the were -- where clause. Digging in further, the source of the query is a special kind of expression in CQL called a retrieve. This is where we are specifying the data order. Retrieves in CQL are enclosed in square bracket and have a type in terminology. Retrieve expressions are effectively same as data criteria in previous versions of QDM. X -- it it -- the way that this is done is intended to be familiar to users of QDM in previous versions. You'll see the same type of colon used to delineate the type in values. The terminology is typically a value set. But it may also be a cold system or a single direct reference code. We look at that a bit more later. For this retrieve is saying find all of the encounters with the codes. So, the results of this expression is that list of encounters.

As an aside, for the terminology section for this measure, note that the name given to the value sets are all available throughout the measure. To retrieve, is reference in the medication encounter code set. If the measure uses any code systems are direct reference codes, they will also be listed in the terminology section of the measure. These value sets are all available in the value set of -- ESAC. The cyclic of that, searching for the medications encountered Co. said by the object identifier employed, in this case you can see the value set displayed here. You can also use this interface to dig and to the contents of that actual value set. Turning back to the retrieve, for many QDM data elements, a gated form is defined. This allows to look for events that did not happen, for example current medications were not documented on the encounter.

So, negated types in QDM, we is the negation rationale to brew -- provide the reason for the absence or why that event did occur. The expression returns medications that were not discharged and the rationale, the medical reason was patient refusal. Note the references terminologies, here. This is the reference to terminology in expression outside of our Shreve. -- Retrieve. The negation rationale in the medical or another reason not done is listed.

Where turning back to the value set, the terminologies used in clinician measures can be downloaded in various formats. Includes a DOS spreadsheet. You can select the appropriate reporting period and select the format. In this case, Excel inserted by CMS ID. Looking at the results of the download, there is a sheet for this measure containing all of the value sets and the content used within this measure. Note that the medical or other reason not done value set, it is looking for the attribute negation rationale. The value set does not have associated QDM category. In the prior versions, the listing contains the attribute where fence. Now, the QDM category will be specified for terminology or not terminology as reference from retrieval and that's because the reference and expection -- in an expression can happen anywhere or in an arbitrary place. So , the direct reference codes are something that is new in CQL is the ability to reference the specific code from the terminology. So, just as with value sets, these codes can make art of the data criteria, they can appear inside of a tree or they can appear outside of a retrieve as part of a CQL expression. For the first example, the documentation of the current medication is referenced directly in human readable terminology is section. This code documentation of current medications procedure. In addition because the terminology is referenced within a retrieve, it will appear in the data criteria section of the human readable. The second example signal from the child immunization status. Event 117. For medicine tests is equivalent to the 2-T code, discharged over hospice care. Because the termination of restaurants outside of retrieve, it appears in terminology section but not the data retrieval section. One more thing to note about the preference, comparisons, it gets this ~rather than any goals. CQL allows both the quality and the equivalent comparisons. This symbol ~is equivalent. But equivalence allows for the same meaning but not the same value for codes. Specifically it means same code systems but not necessarily the same code system version on display. For example, the discharge disposition was coded with the same code but from a previous code system version, the codes are: but not equal. Because, we don't want to use version specific comparisons when we are comparing codes, you'll see that the symbol ~is used to compare codes. Going back to the Valley code of 30, I will spend more time on this because the information communicates values of the codes are different, direct reference codes used by the the patients are provided in a separate download. Again, on the download tabs in the appropriate reporting year, select and the last row in the table is the direct reference code that's specified within those files. The file contains all direct reference codes used in the hospital and can election eCQM. You can see with this file looks like.

So, turning back to the where clause. We saw the where clause in the previous query. The where keyword injures is the clause and what follows is an expression the results in a yes or a no and getting whether each element in the source will be included in the results of the core. In this case, for each encounter and the source, if encounter occurred during the measurable period the result is yes. The encounter is included in the result. Recall the name qualifying encounter? This query has been a lease with the encounter element and the source. For data elements you see this document use. Accessing the attributes of the data element, the qualifying encounter

dock relevant period. It is referencing the relevant source in the qualifying encounter. For encounter performance, QDM defines a period as referring to start and stop time. The actual name relevant period is used on different types and it is part of the clinically relevant period. Using consistent names or attributes across the types makes it easier to learn and use the conceptual data model defined by QDM. One other thing to note is the attribute relevant period and a parameter measurement period of both intervals. They both have a start and an end point. CQL defines operations for bearing both directly as well as timing which allows temporal relationships to be expressed in natural language such as and or during. So, because timing relationships are such a -- important part of describing criterion quality measures, CQL supports a broad range of operations to compare dates and times. For example, we can compare to daytime values, it can be read the encounter as documented before the assessment was completed or you can compare the date time with an interval. The assessment was completed during an encounter, it can also compare an integral with a daytime. The encounter stop and start time includes the assessment completion. It's just the converse of the previous example. And finally, we can compare to intervals directly, the encounter took place during the measurement period. So, looking at some more examples, you have comparing integrals, we've seen during includes that CQL supports other Interval operators , one here shows the use of overlaps, the hospice period overlaps a measurement period. Timing phrases can use keyword starts, access the beginning or ending of an interval similar to which QDM represents previous versions. You can say it starts, timing phrases can also include hospice. And antidepressant starting 105 days or less before after the depression is -- timing phrases can also specify the precision of which a comparison was performed. For example, it can specify the covers and should be performed only to the day ignoring the time component, day of keywords are used for the timing phrases. As in, the assessment was documented 365 days. Or, another example, the suicide risk assessment sources same day as a positive note screening was done.

Okay, next we will look at one of the most common constructs in CQL, the relationship box. So, relationships in CQL use the with and without keywords to establish relationships between sources for this example, the statement reads the primary source and encounters and the related source procedures are the code of documentation of current medication. The related sources giving an alias as well, medication documented in this case. This is used in the such that condition to divine the criteria for the relationship. This example can be read the numerator can qualify encounters during the measurement period with medications documented procedures such as the medications were documented during the encounter.

Queries can include multiple relationships and they can use with and without. With, there is a pass to exist, without, it cannot exist. Queries, each additional relationship further restricts the primary source to those elements that establish relationship. From this example taken from Poll one -- CMS, the definition newborn fed breastmilk since birth can be read. With breastmilk meeting which started during the encounter relative period without dietary intake other than breastmilk which started during the encounters relative period.

Another example of this, sometimes we need to consider alternative relationships among the same source. The relationships are defined as the same query always add to the restriction. You will see alternative relationships expressed by combining the result with each alternative using -- this is from bipolar disorder and major depression. For this example where you -- we're looking for a behavior index encounter. This is 47 days before the start of psychotherapy and in

treatment. These are expressed using a with relationship to the index barrel health outpatient encounter index definition. Those results are then combined. Note, note the parentheses. This can be used anywhere in expression to indicate order of operations. The same way that parentheses can be used in any standard mathematical expression.

Another example, multiple sources. With and without relationships are used when there are 2 data elements involved in the relationship. There are cases where more than 2 elements need to be involved in order to express their criteria. In these cases, you will see a multisource core used. As seen in this example taken from CMS, B letter seven. You can see these multisource queries. It can be done from any number of sources. In this query we have 3 different sources. These counts are under 200, medication orders for lookover and, their criteria has been defined in the where clause. These medications are replaced on the same day, three months or less after the end of this count under 200. Notice the use of the return keyword, the return clause in CQL continues to shape the results of the core. In this example because the core has three sources, each result may have to have up to 3 elements. Only the account under 200 result will be included in the result with the core. This is from the core -- it will return counts under 200 that have this relationship to the medications.

Let's look more closely at the union operator directly. Union is used to combine lists, to combine a number of lists and eliminates duplicate results. So as shown in this example taken from CMS B seven. Unions can combined lists of different types of elements. This expression combines diagnosis from unilateral amputations diagnosis and unilateral amputation procedures. The result will have elements of both types. When different types are confirmed in a single list, for elements in that list they have different attributes. For example, the diagnoses have a prevalence period and the procedures have a relevant period. Looking for a prevalence period out of the procedure, that results in a --

You will see the coolest function used to find the first value in the list of expressions. In this case, if there is no prevalence period used for relevance. When combining results of different types, subsequent Utes -- use of event results need to take that into account. That can't complicate downstream expressions. In some cases, what we want to do is to treat different type of elements as though they were the same. We can do this by using a return to shape the results. In this example taken from 169, the query combines depression treatment procedure orders with depression treatment procedures such as anti-depressant medication orders. But at Teresa procedures performed and medication orders as procedure orders and it does that by constructing a procedure order with the author-daytime from the start of the procedure or the medication. The result of this expression is a list of all procedure order elements, some of those came from actual procedure orders in the underlying system, some of those are constructed in the results based on the values of completed procedures or medication orders during the system orders.

CQL also allows list to be combined using intersect and except in this example taken from CMS 108. We see the use of union and intersect together. Notice these are suppressed. I indicated the order of operations. The innermost union encounters with our Chilo fibrillation -- artillery girl -- the duration. The result is union with the medication received.

I'm looking at one more example. Occasionally, there is any to define a local definition, a name for an expression that can only be used within the core in which it's defined. CQL can include this for a purpose. In this example, prior heart rate introduced to find the most recent prior heart rate for each encounter. This allows the name prior heart rate to be used throughout the rest of the core. So in the where clause we see that the heart rate in the prior heart rate has to be less than 50 bpm. In other words, this queries looking for consecutive heart rate below 50 beats per minute.

That concludes the list of examples that we have. And, I will turn it back over to Shanna to talk about some available tools and resources for the specifications.

Speaker: Shanna Hartman

Thank you Bryn. We have listed some available tools and resources you can use as a reference such as the CQL specification. Then there is the CQL based implementation guide of the link. The electronic clinical quality improvement resource center we can find information on CQL including QDM's you can also find the updated the eCQM specifications on the eCQI resource Center. Links to that center as well. And additional resources that are available for CQL such as formatted and usage wiki. A hub tools repository, the money testing tool and if you have any CQL questions or issues, you can submit and issue ticket. And at this time, I will turn it over for questions.

Q & A

This afternoon we have several really great questions.

Question:

The first is from Mary Rose and she is asking how is this related to any change in reporting to electronic clinical data system reporting?

Answer:

This is Shanna, sorry. I'm not familiar with this. Maybe Brny if you have additional information?

I can speak directly to it. This is more about a focus on being able to talk about importing clinical data sources into data that is used to perform the measure. It's a focus on where the source of the data is coming from more than how the specifications are being communicated. Does that help?

Thank you, Bryn. I do, we're getting a lot of questions about the slides. We will be posting them on the website. A link will be provided shortly. We have a recording that will also be posted in case you missed any portion of the presentation.

Question:

Okay, the next question is from Eddie, can you summarize what CQL is in one or two sentences?

Answer:

So, it's a high level language for encoding clinical knowledge. It is focused on , it is a core language that is augmented with support for constructs that are ubiquitous in healthcare settings. Inner roles which allows temporal expressions and terminologies as elements. That was 2 sentences but that may have been too long. Sorry.

Question:

That was great. The next question is from Stephanie Batista, the question is for medications such as for the PTE prophylactics, if administered in the ER prior to the start of the impatient encounter, does the new SQL UL -- CQL qualify that patient? Are encounters numbers stay the same from emergency department in patient?

Answer:

Yes, if you look at a lot of the hospital measures, you will see a new function called hospitalization. And hospitalization really is intended to capture where there is an emergency department visit prior to and impatient encounter. And, the measure is looking at the period from the ED admission all the way through that discharge from the hospital. So, you will see the hospitalization function is to determine that. Rather than looking for the administration in the impatient encounter, we look for the administration anywhere in the start of the emergency department visit to the end of the patient encounter.

And this is Shanna Hartman, to Bryn's response, this webinar today and Thursday where overstaying -- we are hosting a similar webinar which kicks off additional measure specifications. So, please be sure to be on the lookout for these upcoming webinars. That is where you will find individual measure information as well.

Question:

The next question is from Lynn Hostetler. Generally, clinical documentation is focused on affirmative or positive findings and not documentation of what is not done. Negation rationale in other words. Can you speak to the impact of that requirement in terms of changes required and documentations? Clearly, it makes more sense for some than others.

Answer:

This is Shanna from CMS. I don't think any of the -- that is changed. The negation rationale and recommendation of findings is often done. It was used prior to eCQI . This is for the logic portion of CQL.

Question:

This comes from Greta, she came across this within CMS version 7. Can you explain what it does? Then she'd provides a definition of global hospitalization and location and it goes through the encounters.

Answer:

Flattened takes a list of lists and returns the elements in all of the lists as a single list. So if of a list for the first element, it is itself a list of one, 2 and 3, and the second element is a list of 4, 5 and six. Then flatten will return a list as the elements of one ct two, three, four, five, and six. If you look in the specifications self, there is a discussion about that.

Question:

Thanks, Bryn. The next question is from Yvette and the question is for episode-based measures. How do you express negation logic, would it return a negative type? The math does not package at the return types are not the same in all population criteria.

Answer:

All right, so. Typically, the negation are used as part of relationships to the primary elements. If you have a measure of encounters performed, you would be looking for things that didn't happen during that encounter. If you had a measure that was looking for encounters not performed, that would be a different population. It would be a different base population, it seems to me. Does that help?

Thanks Bryn. When comparing time periods such as with during, are those inclusive comparisons for example, greater than or equal to the start and less than or equal to the end.

Yes, for the during operation specifically, those are inclusive comparisons. There are, in those specifications, he goes into great detail on what exactly each of those episode-based measures mean. Sorry, I was reading from the question list. It does select each of those operators in terms of the start and stop of each interval in the comparison. But, yes with during, those are inclusive comparisons.

Question:

Okay. The next question is from --

What is prevalence period and relevant period and the differences between them?

Answer:

So, I would defer to Q DM expert on that. The QDM specification as the exact definitions of what those attributes are. In prevalence period, that is associated with a diagnosis, relevant period might be when it was documented for diagnosis. But the prevalence period be -- would be when it was prevalent in the patient. Again, that would be, I would refer you to the QDM documentation on that.

Question:

Okay, the next question, can you please share a reference of implementation for CQL? For example, a reference implementation which parses the CQL, interprets a logic block into code and acts on the patient data model.

Answer:

Yes, we do have tools repository that we provided in tools and resources. It has a to script, a CQ L interpreter. And, the tool and repository has a CQL translator that is built in Java that actually takes the CQL and in turns it into a machine-readable representation that focuses on, that is what the engine is running. It is available.

Question:

Thank you. The next one is from Steve has Lee. Can you discuss the relationship of plaintiff -- CQL and other models?

Answer:

I am certainly not an expert on these models. I would say that my understanding of BPM, it can reference expressions of different flavors. Different languages. So, CQL can be used within a PPM model to provide criteria for branching, flow and things like that. You can also use it to define actions that you would want to take within a particular process. You can also use it to define the input and output parameters for any given node within the model. So, there is a lot there. There is a lot of potential but, that is a work in progress, I think.

Question:

Thank you, the next is from Greg, can you please get -- give more examples of intersect and except. What those terms mean for logic?

Answer:

Yes, within the CQL specification, there is good examples of that. Especially with diagrams. Basically they intersect, it takes 2 list and returns only the items that are in common between those 2 list. If you have numbers that intersect, you'll get some of them. And then, except takes the difference between, it's the difference. If you have 1, 2, 3, 4, you will get 1 and 2. Those also work with intervals. The intersect returns the overlap of the intervals and the except of intervals returns the interval, the first interval where it does not overlap the second.

Question:

Thank you. The next question is from Nancy, which reporting year will CQL be expected to be fully implemented?

Answer:

This is Shanna from CMS. The measure specifications that we make managed -- we published in 2018 are using CQL logic. It is for implementation beginning January 1, 2019 for both hospital and clinician CQL 's.

Question:

Thank you. The next question is from Brian, what is the overall goal of CQL versus the other tools. It is much harder to read. What is the Vantage?

I will reference this because some of the advantage, so, CQL is embedded so just to clarify, what comes out of the measure authoring tool is usually in clinical quality language. That is part of the MAT output what are the additional advantages?

Answer:

Yes, in trying to express more sophisticated quality measures, QDM, the previous versions, we ran into this roadblock where you can express the quality measure using the logic functions in QDM. We were faced with the choice of expanding QDM or breaking out the logic portions of QDM into a separate specification which has lots of advantages in terms of architecture. CQL can focus on supporting the ability to express logic and QDM can focus supporting the conceptual data model description. Those 2 specifications can evolve independently. And, CQL can be used in different domains, it can be used in port definitions or decision support. As far as being more difficult to read, we love feedback on that. We tried very hard to make the syntax of CQL familiar to somebody had used QDM. It is more sophisticated then QDM because it supports more functionality perks -- functionality. So, yes. I would love feedback. What do you think is hard to read? I will try to address any issues that you find.

CONCLUSION

Speaker: Anita Somplasky

So, I know we'll have one minute left and we still have a few things to wrap up. So, we will, just to let you know, will be putting up all questions and answers as part of the document that we post. So, I know that we still have several that we have not gotten to. Do you want to go over some of the next steps, here?

Speaker: Shanna Hartman

Sure. Slides and questions and answers will be posted to the eCQI resource Center.

Any additional questions that you think of may be submitted to the eCQM issues tracker. There is a CQL project inside of that as well. And, we want to thank you for attending today's webinar and as I mentioned earlier, this kicks off a series of webinar series for a deeper dive into eCQM. Our next eligible professional clinician webinar will be on preventive care and screening measures and will be held January 16, 2019 from 1 PM to 2 PM EST. You can use a link via web serve or you can find these webinars on the eCQI resource Center for events. You can register there as well. Again, we want to thank you for attending today's webinar on CQL basics.

This concludes today's webinar. Please have a great afternoon.

[Event Concluded]