

# Quality Data Model (QDM) User Group Meeting |Minutes

Meeting date | 07/19/2017 2:30 PM ET | Meeting location|Webinar link:  
<https://esacinc2.webex.com/esacinc2/j.php?MTID=mb962393406b2f4cf8f09d16d996ee5ec>

Time	Item	Presenter	Discussion/Options/Decisions
5 Minutes	Announcements	Chana West (ESAC)	<ul style="list-style-type: none"> <li>• <b>Cooking with CQL Webinar was held on July 20<sup>th</sup> at 4:00 PM ET.</b> These sessions are generally held on the third Thursday monthly. Upcoming events can be found by going to the <a href="#">eCQI Resource Center events page</a>.               <ul style="list-style-type: none"> <li>○ Please submit CQL-related questions to <a href="mailto:cql-esac@esacinc.com">cql-esac@esacinc.com</a>.</li> </ul> </li> <li>• <b>2017 CMS QRDA III Implementation Guide is Now Available</b> <ul style="list-style-type: none"> <li>○ CMS has published the <a href="#">2017 CMS Quality Reporting Document Architecture Category III (QRDA III) Implementation Guide (IG) Version 1.0 (7/07/2017) for Eligible Clinicians and Eligible Professionals (EPs) Programs with Schematron and sample files</a>. This version replaces the 2017 CMS QRDA III IG for Eligible Clinicians Reporting v0.1 (12/29/2016).</li> </ul> </li> </ul>
60 Minutes	QDM 5.3 Annotated Version	Floyd Eisenberg (ESAC)	<p>The purpose of the annotated version is to provide guidance for using QDM 5.3 with the transition to CQL. The introduction section includes modified diagrams to show how to express a QDM data element using tooling designed for CQL. A new section addresses timing considerations (i.e., intervals and timing periods), and a new appendix lists special cases including use of the component and facility location attributes and how to specify results with value sets.</p> <p>Recap from last month's meeting:</p> <p>Definition of a QDM element now occurs in different locations in the tooling with the incorporation of CQL. The datatype and it related value set or direct referenced code is still expressed in the HQMF, but attributes (or metadata) and any value sets or direct referenced codes associated with the attributes are written in CQL. The QDM data model still defines the allowable attributes for each datatype. The updated documentation should more clearly indicate this change starting with the QDM version 5 family (i.e., 5.0, 5.01, 5.02, 5.3).</p> <p>ESAC presented the diagrams used in the QDM 5.3 annotated version. Refer to the QDM User Group slide deck for the diagrams.</p> <p>ESAC also suggested that the changes in this annotated version are primarily descriptive with additional guidance, the QDM version number should remain the same (5.3).</p>

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60 Minutes	QDM 5.3 Annotated Version, Cont.	Floyd Eisenberg (ESAC) Cont.	<p>The User Group did not express any concerns with maintaining the same version number, and suggested that a new version number would be confusing since the data model has not changed.</p> <p><b>Discussion:</b> Lisa Anderson (TJC) – What is the use case for the second statement (Length of stay is equivalent to the difference between start and end times of Encounter, Performed)? ESAC explained the length of stay attribute is a derived element that can be expressed using the CQL expression. Lisa suggested it is clearer to say “day” instead of “time” since length of stay is not calculated on a 24-hour clock.</p> <p><b>Resolution:</b></p> <ul style="list-style-type: none"> <li>• Update the diagrams to indicate start day and end day for Encounter, Performed length of stay.</li> <li>• The UG had no other questions or suggestions for additional guidance.</li> <li>• Maintain the version number QDM 5.3.</li> </ul>
45 Minutes	Cumulative Medication Duration	Floyd Eisenberg (ESAC)	<p>Cumulative medication duration (CMD) Medication, Order</p> <ul style="list-style-type: none"> <li>- Supply – quantity provided to the patient</li> <li>- Frequency – how frequently the medication should be taken</li> <li>- Refills – number of prescription refills allowed</li> </ul> <p><math>CMD = (\#supplied/frequency) \times (1 + \#refills)</math></p> <p><i>Question:</i> How is frequency expressed in EHRs and how might that information be interpreted to calculate the CMD from the CQL expression (e.g., should the CQL expect an integer or a code)?</p> <p>Example:</p> <p>C-CDA represents the expected duration of a medication order using effectiveTime. effectiveTime low represents the start time (generally the time the prescription is authored unless a specific future start, or active date is specified). effectiveTime high represents the medication frequency.</p>

Time	Item	Presenter	Discussion/Options/Decisions
45 Minutes, Cont.	Cumulative Medication Duration, Cont.	Floyd Eisenberg (ESAC), Cont.	<p>ESAC asked if a standard representation existed in EHR implementations and usage. And, further, how the calculation might interpret variation in the frequency described.</p> <p>Example: Every four hours to every six hours.</p> <ul style="list-style-type: none"> <li>• What are the options for indicating frequency as a code? <ul style="list-style-type: none"> <li>○ Every four hours = 6 doses per day</li> <li>○ Every six hours = 4 doses per day</li> <li>○ BID = 2 doses daily</li> <li>○ TID = 3 doses daily</li> <li>○ Every other day = 0.5 doses daily</li> <li>○ Etc.</li> </ul> </li> <li>• How might the calculation differentiate the options provided in a prescription frequency? <ul style="list-style-type: none"> <li>○ Assume the most frequent frequency and that all refills are fulfilled</li> <li>○ Actual administration (or self-administration) can lead to a much longer cumulative medication duration</li> <li>○ Verbal communication between the provider and the patient may alter or discontinue the medication but such changes do not change the original order. So if the cumulative medication duration calculation uses the medication order, the result is based on the original plan of care. The measure developer needs to assess feasibility of additional information (e.g., dispensed medication or administered medication) and determine the accuracy and reliability of such data.</li> </ul> </li> </ul> <p>ESAC noted that use of a number to indicate the number of doses per day requires a mapping table from the available codes in the HL7 frequency value set to encourage consistent interpretation. Further, whole integers are not sufficient; fractions are needed (e.g., every other day = 0.5 per day).</p> <p>ESAC further noted that tooling needs to consider whether the conversion from code to numerical representation should occur as the information is retrieved from the EHR or as a subsequent step (e.g., using the CQL to ELM translator).</p> <p>The HL7 Frequency codes also include concepts that do not necessarily translate to numbers directly:</p> <ul style="list-style-type: none"> <li>- AC – before meals – Is this interpreted as 3 times/day?</li> <li>- HS – hour of sleep – Does AC +HS = 4 times/day?</li> </ul>

Time	Item	Presenter	Discussion/Options/Decisions
45 Minutes, Cont.	Cumulative Medication Duration, Cont.	Floyd Eisenberg (ESAC), Cont.	<p><b>Discussion:</b></p> <p>Zahid Butt (MediSolv) – Noted defining CMD must map back to a use case. Is the use case for ordered, taken or administered? The amount administered is more precise, assuming such data are available. ESAC noted that the existing use case addressed Medication, Ordered since in a number of locations, dispensing information is not available and self-administration for ambulatory medication is also not available.</p> <p>Juliet Rubini (Mathematica) – Suggested we might be able to cut down on the number of codes. In the hospital setting, AC and HS are on The Joint Commission (TJC) list of abbreviations that should not be used. It will help to get a better idea of what is being used in the field to come to a more accurate starting point.</p> <p>ESAC agreed that input from The Joint Commission and the Institute for Safe Medication Practices will help advise regarding acceptable abbreviations. Note that suggestions for changes should also be communicated to HL7 to update their value set.</p> <p>Zahid Butt– Agreed the ambiguous codes should be removed. Suggested that a code and matching value should mean the same thing wherever it is calculated. All codes should relate to a number.</p> <p>Cynthia Barton (Lantana) – Asked what if half way through taking the medication, the provider changes the dose and whether converting frequency to a number might impact how a patient takes a medication at home. ESAC noted the medication order indicates the initial intent. Using Medication, dispensed might show the impact of physician- or self-directed change in medication frequency as the number refills dispensed. The measure developer should consider all factors when testing the measures to evaluate CMD. Note that the frequency data mapped to a number is used in CMD calculation only; there is no reason to use it to change the actual frequency in the patient’s record.</p> <p>ESAC asked if frequency should have a cardinality of greater than 1 to allow for dose changes. For example, in the case of a tapered dose, take one dose every four hours for five days, then every six hours for five days, and every 12 hours. In this case, there are three frequencies, not just one. Total number given is still the same.</p> <p>Zahid Butt– Suggested these are three separate calculations and summed up.</p> <p>ESAC thought this may be handled as three different orders (i.e., frequency has cardinality of one for each.</p>

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45 Minutes, Cont.	Cumulative Medication Duration, Cont.	Floyd Eisenberg (ESAC), Cont.	<p>Rachel Buchanan (Oregon Urology) – Some EHRs handle such doses as a single prescription with instructions to taper. The order indicates the number of pills (supply) and for what duration (number of days is a structured field). The EHR prescription tells the pharmacist how many pills to release to the patient.</p> <p>EHR products and EHR implementations may vary and individual physicians may author prescriptions differently. The group agreed that follow up with vendors and implementation sites with examples would be helpful.</p> <p><b>Resolution:</b></p> <ul style="list-style-type: none"> <li>• ESAC to create a mapping table with input from TJC and the Institution for Safe Medication Practices (ISMP), which identify unsafe abbreviations.</li> <li>• ESAC will create guidance with examples to include in an annotated version of QDM. Juliet Rubini, Rachel Buchanan and other implementers and vendors to review this guidance and provide feedback.</li> <li>• ESAC to consider expanding frequency cardinality to allow for prescriptions with more than one frequency depending on the information learned.</li> </ul>
15 Minutes	Determining information about a mother or infant	Floyd Eisenberg (ESAC)	<p>A question arose regarding a measure that is looking at care of the mother or the infant and needs information on the other. How would QDM handle this situation?</p> <p>Assessment, Performed can include a standard assessment that incorporates questions about the infant's mother (or a Labor and Delivery form on the mother's record that includes information about the infant). The question represents an observable entity that can include a response (result) in the respective record.</p> <p>Can a mechanism be added to QDM to provide other types of linkage?</p> <p><b>Discussion:</b></p> <p>Pamela Mahan-Rudolph (Memorial Hermann) – Their EMR includes a “result copy” section that allows you to copy labs from the mother into the infant's chart. There are issues with collecting this data consistently and comprehensively; consequently the quality of the data varies. This data is labeled as maternal lab result. The issue with this data is that very often the mother is receiving care outside of the place of delivery and hard to capture because the labs are externally generated.</p>

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15 Minutes, Cont.	Determining information about a mother or infant, Cont.	Floyd Eisenberg (ESAC), Cont.	<p>In their EMR the user sees the mother's name and her record number likely linked from the Encounter.</p> <p>Zahid Butt (MediSolv) – Suggested the mother is a uniquely identified entity, which at some point splits into two entities (one for mother, one child) with unique identifiers. Once the new entity is created it would be difficult to provide a backwards link.</p> <p><b>Resolution:</b> None at this time. ESAC will continue to look for future solutions.</p>
5 Minutes	Next Meeting	Chana West (ESAC)	<p><b>Agenda items for next QDM user group meeting</b></p> <ul style="list-style-type: none"> <li>– Contact us at <a href="mailto:qdm@esacinc.com">qdm@esacinc.com</a></li> <li>– Or start a discussion: <a href="mailto:qdm-user-group-list@esacinc.com">qdm-user-group-list@esacinc.com</a></li> </ul> <p><i>If you attend the QDM User Group meetings but do not receive communications or have access to the QDM User Group List, please send an email to <a href="mailto:QDM@esacinc.com">QDM@esacinc.com</a> so you may be added to the distribution list.</i></p> <p><b>Next user group meeting</b></p> <ul style="list-style-type: none"> <li>– Regularly Scheduled Meeting – August 16, 2017 from 2:30 to 4:30 PM ET.</li> </ul>

#### Action Items:

Assignee	Topic	Action Item Details
ESAC	QDM 5.3 Annotated Version	<ul style="list-style-type: none"> <li>• Update the diagrams to indicate start day and end day for Encounter, Performed length of stay.</li> </ul>
ESAC	Cumulative Medication Duration	<ul style="list-style-type: none"> <li>• Create a mapping table and create guidance with examples to include in an annotated version of QDM.</li> <li>• Share drafted guidance with Juliet Rubini (Mathematica), Rachel Buchanan and other implementers and vendors for review and feedback.</li> <li>• Consider expanding frequency cardinality to allow for prescriptions with more than one frequency depending on the information learned.</li> </ul>
ESAC	Determining information about a mother or infant in the other's record	<ul style="list-style-type: none"> <li>• Continue to look for future solutions</li> </ul>

## Invitees/Attendees:

	<b>Name</b>	<b>Organization</b>
X	Abrar Salam	The Joint Commission
	Alex Lui	Epic
X	Angela Flanagan	Lantana
	Anna Bentler	The Joint Commission
	Anne Coultas	McKesson
	Anne Smith	NCQA
	Balu Balasubramanyam	MITRE
	Ben Hamlin	NCQA
	Brian Blaubeux	Northern Westchester Hospital
	Bryn Rhodes	ESAC
X	Chana West	ESAC
	Chandra Bartleman	Telligen
	Chris Moesel	MITRE
	Cindy Lamb	Telligen
X	Cynthia Barton	Lantana
	Dalana Ostile	Providence Health Systems
	Dave Wade	Apprio
	Debbie Hall	University of Maryland
	Doug Goldstein	Epic
X	Floyd Eisenberg	ESAC
	Howard Bregman	Epic
X	Jamie Jouza	PCPI
	Jean Fajen	Telligen
X	Jenny Brush	ESAC
	Jenna Williams-Bader	NCQA
	John Carroll	The Joint Commission
X	John Lujan	Kaiser Permanente
	Jessica Smails	Caradigm
X	Joseph Kunisch	Memorial Hermann
	Jorge Belmonte	PCPI
	Julia Skapik	ONC
	Julie Koscuizska	Nyack Hospital
X	Juliet Rubini	Mathematica
	Justin Schirle	Epic
	Jay Frails	Meditech
X	Kerri Lanum	Northern Illinois University Health Services
	Khadija Mohammed	ESAC
	Kendra Hanley	HSAG
	Kimberly Smuk	HSAG
	KP Sethi	Lantana
	Latasha Archer	NCQA

	<b>Name</b>	<b>Organization</b>
	Laura Pearlman	Midwest Center for Women's Healthcare
	Laurie Wissell	Allscripts
X	Lisa Anderson	The Joint Commission
	Lizzie Charboneau	MITRE
	Lynn Perrine	Lantana
	Marc Hadley	MITRE
	Margaret Dobson	Zepf Center
	Marilyn Parenzan	The Joint Commission
X	Melissa Van Fleet	Alliance Health Oklahoma
	Michelle Dardis	The Joint Commission
	Michelle Hinterberg	MediSolv
X	Mike Shoemaker	Telligen
	Mukesh Allu	Epic
X	Neelam Zafar	The Joint Commission
X	Pamela Mahan-Rudolph	Memorial Hermann
	Patty McKay	FMQAI
	Paul Denning	MITRE
X	Rachel Buchanan	Oregon Urology
X	Rayna Scott	PCPI
	Rob McClure	NLM Contractor
X	Robin Holder	Allscripts
	Rose Almonte	MITRE
	Rukma Joshi	ESAC
	Rute Martins	MITRE
	Ruth Gatiba	Battelle
	Ryan Clark	Xcenda
	Samuel Benton	NCQA
	Sethuraman Ramanan	Cognizant
X	Stan Rankins	Telligen
	Susan Wisnieski	Meditech
	Sweta Ladwa	ESAC
	Syed Zeeshan	eDaptive Systems
	Tammy Kuschel	McKesson
	Tom Dunn	Telligen
	Vaspaan Patel	NCQA
	Wendy Wise	Lantana
X	Yan Heras	ESAC
	Yanyan Hu	The Joint Commission
X	Yvette Apura	PCPI
X	Zahid Butt	MediSolv
	Zach May	ESAC