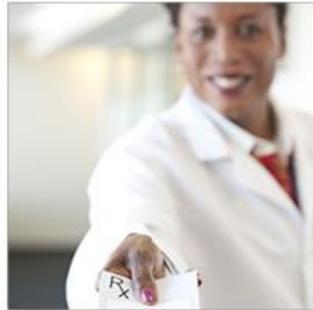


Cooking with CQL – QDM 5.4 Update

May 31, 2018



QDM 5.4 Update

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QDM attribute ‘setting’ (QDM-101)

- Add attribute to QDM datatype Medication, Order — *setting* (i.e. ordered for use inpatient, ambulatory, etc.)
- Aligns with HL7 FHIR resource MedicationResource.category
 - <http://hl7.org/fhir/STU3/valueset-medication-request-category.html>
 - Definition: “Indicates the type of medication order and where the medication is expected to be consumed or administered.”
 - Options – Inpatient, Outpatient, Community

Assessment, Order QDM-202

- Add QDM datatype *Assessment, Order*
- Providers do plan (or order) future assessments as part of interventions for health concerns included in a care plan. These future assessments have expected completion times and, thus, are consistent with orders.
- Attributes:
 - Author dateTime
 - Negation Rationale
 - Reason
 - Method
 - Code
 - Id

QDM Datatype “Symptom” QDM-203

- Retain QDM datatype *Symptom*
 - Definition: “an indication that a person has a condition or disease. Some examples are headache, fever, fatigue, nausea, vomiting, and pain. Also, symptoms are subjective manifestations of the disease perceived by the patient. As an example to differentiate symptom from finding, the patient’s subjective symptom of fever is distinguished from the temperature (a finding). For a finding, there is either a source of either a temperature-measuring device together with a recorder of the device (electronically) or an individual (healthcare provider, patient, etc.).”

QDM Datatype “Symptom” QDM-203

- **Definitions regarding symptom on the HL7 FHIR condition resource (<http://hl7.org/fhir/condition.html>) include:**
 - Use the Observation resource when a symptom is resolved without long term management, tracking, or when a symptom contributes to the establishment of a condition.
 - Use Condition when a symptom requires long term management, tracking, or is used as a proxy for a diagnosis or problem that is not yet determined.
- **QDM User Group Decision:**
 - Retain the QDM datatype *Symptom* with current definition.
 - Provide guidance in the QDM documentation consistent with the FHIR condition resource definitions listed above (pending updates to FHIR definition).

QDM “method” attribute QDM-196

- Remove “method” attribute from Recommended- or Order- related QDM datatypes which all map to HL7 FHIR resources as either
 - ProcedureRequest
 - ReferralRequest, or
 - MedicationRequest.
- Retain "method" attribute for QDM “Performed” datatypes.

QDM "negation rationale" attribute QDM-197

- Retain Negation Rationale attribute as currently applied in QDM
- Recommend FHIR resources consider notDoneReason for
 - DeviceUseStatement (FHIR tracker 15938)
 - DeviceRequest (FHIR tracker 15939)
 - ServiceRequest (FHIR tracker 15940)
 - MedicationRequest (FHIR tracker 15941)

QDM Datatype Device, Applied QDM-198

- Retain Device, Applied as specified
- Add guidance about options:
 - To retrieve information about the *procedure* to use or implant a device should use the QDM datatypes (see QDM 201 to differentiate Intervention and Procedure)
 - *Procedure, Performed, or*
 - *Intervention, Performed*
 - To address specific information about use of specific device(s) of interest (e.g., SNOMED *physical objects*) Use *Device, Applied*.
 - To retrieve information that a device is present
 - Use *Diagnosis* to retrieve information about the presence of a device (e.g., pacemaker as a finding in a Problem List)
 - Use *Assessment, Performed* to retrieve and observation or finding the device is in use

QDM attribute “supply” QDM-199

- Retain “supply” attribute for:
 - Medication, Dispensed
 - Medication, Order
 - Substance, Order
 - Medication, Discharge
- Remove “supply” attribute for:
 - Medication, Active
 - Medication, Administered
 - Substance, Administered
 - Substance, Recommended
 - Immunization, Administered.

Attribute “anatomical approach site”

QDM-200

- Remove “anatomical approach site” attribute
- Historical context:
 - Two use cases initially reviewed by the QDM User Group April 12, 2013:
 - Specifying that a "Device, Applied: Urinary Catheter" qualifies for the measure only if placed through the urethra (i.e., specifically not including supra-public catheters. In this use case, the anatomical approach site is the urethra; the anatomical location site is the bladder.
 - Specifying a specific structure that is the target of a procedure — [AND: “Procedure performed: Sealants Value set (“Anatomical Structure”: “First Permanent Molar” Value Set) during “Measurement Period”]
- Options:
 - Pre-coordination: CPT and SNOMED incorporate the “approach site” as defined in QDM embedded within procedure codes (e.g., urethral insertion of urinary catheter)
 - Post-coordination: SNOMED includes *physical object* concepts consistent with precoordinated “devices” (e.g., urethral catheter, suprapubic catheter)
 - QDM "anatomical location" covers the need for the second use case presented.
 - The "anatomical location" attribute fulfills the need for the second use case presented.

QDM Intervention and Procedure Categories

QDM-201 – Current Definitions

- **Retain Intervention & Procedure QDM categories – Current Definitions:**
 - **Intervention**
 - “a course of action intended to achieve a result in the care of persons with health problems that does not involve direct physical contact with a patient. Examples include patient education and therapeutic communication.”
 - **Procedure**
 - “derived directly from HL7 and Canada Health Infoway: “An Act whose immediate and primary outcome (post-condition) is the alteration of the physical condition of the subject. ... Procedure is but one among several types of clinical activities such as observation, substance-administrations, and communicative interactions ... Procedure does not comprise all acts of [sic] whose intent is intervention or treatment.” A procedure may be a surgery or other type of physical manipulation of a person’s body in whole or in part for purposes of making observations and diagnoses or providing treatment.”
- References:
1. HL7, available at: http://www.hl7.org/documentcenter/public_temp_9D8B62D1-1C23-BA17-0C978A875D9E7083/wg/java/apidocs/org/hl7/rim/Procedure.html. Last accessed August 2017.
 2. Modified from Canada Health Infoway, available at: <https://www.infoway-inforoute.ca/>. Last accessed August 2017.

QDM Communication Datatypes (QDM-204)

- Change to a single QDM datatype for communication – *Communication, Performed* in QDM 5.4
- Current QDM version 5.3 (and earlier) QDM Datatypes
 - Communication: from Patient to Provider
 - Communication: From Provider to Patient
 - Communication: From Provider to Provider
 - Attributes:
 - Negation Rationale
 - Author dateTime
 - relatedTo
 - Code
 - id

QDM Communication Datatypes (QDM-204)

HL7 FHIR Communication Resource (<http://hl7.org/fhir/communication.html>)

This resource is a record of a communication. A communication is a conveyance of information from one entity, a sender, to another entity, a receiver. The sender and receivers may be patients, practitioners, related persons, organizations, or devices. Communication use cases include:

- A reminder or alert delivered to a responsible provider
- A recorded notification from the nurse that a patient's temperature exceeds a value
- A notification to a public health agency of a patient presenting with a communicable disease reportable to the public health agency
- Patient educational material sent by a provider to a patient
- Non-patient specific communication use cases may include:
 - A nurse call from a hall bathroom
 - Advisory for battery service from a pump

HL7 FHIR Procedure Resource:

The boundary between determining whether an action is a ***Procedure (training or counseling) as opposed to a Communication is based on whether there's a specific intent to change the mind-set of the patient.*** Mere disclosure of information would be considered a Communication. A process that involves verification of the patient's comprehension or to change the patient's mental state would be a Procedure.

QDM Communication Datatypes (QDM-204)

Communication Performed	Communication.status (completed)
Category	Communication.category: The type of message conveyed such as alert, notification, reminder, instruction, etc.
Medium	Communication.medium: A channel that was used for this communication (e.g. email, fax).
Code	Communication.reasonCode: The reason or justification for the communication.
Sender	Communication.sender: The entity (e.g. person, organization, clinical information system, or device) which was the source of the communication.
Recipient	Communication.recipient: The entity (e.g. person, organization, clinical information system, or device) which was the target of the communication.
Negation Rationale	Communication.notDoneReason: Describes why the communication event did not occur in coded and/or textual form.
Relevant Period	Communication.sent (dateTime) to Communication.received (dateTime)
Author dateTime	FHIR.provenance.recorded
RelatedTo	Communication.basedOn: An order, proposal or plan fulfilled in whole or in part by this Communication.
Id	Communication.id