2016 CMS QRDA I SCHEMATRON V2.3 TECHNICAL RELEASE NOTES

For Hospital Quality Reporting and Eligible Professional Programs

October 18, 2016

1. 2016 CMS QRDA I Schematrons Version 2.3 for Eligible Professional Programs and Hospital Quality Reporting

The Table below lists the updates made in the 2016 CMS QRDA I Schematrons Version 2.3 for Eligible Professional Programs (file name: PQRS CMS 2016 QRDA Category 1 v2.3.sch) and Hospital Quality Reporting (file name: CMS 2016 QRDA Category 1 – HQR v2.3.sch) compared to the previously released Schematron Version 2.2 for Eligible Professional Programs (file name: PQRS CMS 2016 QRDA Category 1 v2.2.sch) and Schematron Version 2.1 for Hospital Quality Reporting (file name: CMS 2016 QRDA Category 1 – HQR v2.1.sch). While a version 2.2 of the 2016 HQR Schematrons was created and disseminated to HQR it was not utilized or published. Therefore, to avoid any confusion this release is being published as version 2.3, which was created from version 2.1. These changes are detailed below.

Table 1: 2016 CMS QRDA Schematrons Version 2.3 for Eligible Professional & HQR Changes

Template	Conf. #	Schematron V2.1	Schematron V2.3	Rationale
Result Observation (V2) [2.16.840.1.113883.10.20.22.4.2:2014-06-09]	1098-7133	`<sch:assert id="a-1098-7133" test="count(cda:code[@codeSystem='2.16.840.1.113883.6.1' or @nullFlavor])=1">`SHALL contain exactly one [1..1] code, which SHOULD be selected from CodeSystem LOINC (urn:oid:2.16.840.1.113883.6.1) (CONF:1098-7133).`</sch:assert>`	`<sch:assert id="a-1098-7133" test="count(cda:code)=1">`SHALL contain exactly one [1..1] code, which SHOULD be selected from CodeSystem LOINC (urn:oid:2.16.840.1.113883.6.1) (CONF:1098-7133).`</sch:assert>`	**SHALL** contain exactly one [1..1] **code**, which **SHOULD** be selected from CodeSystem LOINC (urn:oid:2.16.840.1.113883.6.1) (CONF:1098-7133). The fix allows code from code system other than LOINC (per eCQM specified value sets) to be accepted where Result Observation (V2) is used, such as the observation/code element of the Result attribute of the Diagnostic Study Performed (V2) [2.16.840.1.113883.10.20.24.3.18:2014-12-01].

Template	Conf. #	Schematron V2.1	Schematron V2.3	Rationale
Target Outcome [2.16.840.1.113883.10.20.24.3.119:2014-12-01]	1140-28026	<sch:assert id="a-1140-28026" test="count(cda:code[@codeSystem='2.16.840.1.113883.6.1' or @nullFlavor])=1">SHALL contain exactly one [1..1] code, which SHOULD be selected from CodeSystem LOINC (urn:oid:2.16.840.1.113883.6.1) (CONF:1140-28026).</sch:assert>	<sch:assert id="a-1140-28026" test="count(cda:code)=1">SHALL contain exactly one [1..1] code, which SHOULD be selected from CodeSystem LOINC (urn:oid:2.16.840.1.113883.6.1) (CONF:1140-28026).</sch:assert>	**SHALL** contain exactly one [1..1] **code**, which **SHOULD** be selected from CodeSystem LOINC (urn:oid:2.16.840.1.113883.6.1) (CONF:1140-28026). The fix allows code from code system other than LOINC (per eCQM specified value sets) to be accepted for the observation/code element of the Target Outcome attribute of Care Goal (V2) [2.16.840.1.113883.10.20.24.3.1:2014-12-01].
Goal Observation [2.16.840.1.113883.10.20.22.4.121]	1098-30784	<sch:assert id="a-1098-30784" test="count(cda:code[@codeSystem='2.16.840.1.113883.6.1' or @nullFlavor])=1">SHALL contain exactly one [1..1] code, which SHOULD be selected from CodeSystem LOINC (urn:oid:2.16.840.1.113883.6.1) (CONF:1098-30784).</sch:assert>	<sch:assert id="a-1098-30784" test="count(cda:code)=1">SHALL contain exactly one [1..1] code, which SHOULD be selected from CodeSystem LOINC (urn:oid:2.16.840.1.113883.6.1) (CONF:1098-30784).</sch:assert>	**SHALL** contain exactly one [1..1] **code**, which **SHOULD** be selected from CodeSystem LOINC (urn:oid:2.16.840.1.113883.6.1) (CONF:1098-30784). The fix allows code from code system other than LOINC (per eCQM specified value sets) to be accepted for the observation/code element of Care Goal (V2) [2.16.840.1.113883.10.20.24.3.1:2014-12-01].

2. Clarifications to Minor Issues that did Not Result in Schematron Changes

Table 2 provides clarifications to issues for QRDA I that are minor and do not hinder submissions. No Schematron changes were made in this release for these issues.

Table 2: Clarifications to Minor Issues that Did Not Result in Schematron Changes

Issue	Conf. #	Issue Type	Description	Clarifications
nullFlavor rule for CD and CE data type	N/A Rule: validate_CD_CE	Minor (Guidance)	If both @codeSystem and @nullFlavor attributes are present for the CD or CE data types, the Schematron rule requires the value of @nullFlavor to use the nullFlavor code "OTH" only. If @nullFlavor is present without @codeSystem, the value of @nullFlavor can be any nullFlavor codes, such as "NA" and "NI".	The example below shows how data for "Not Done with a reason" should be submitted: \<value xsi:type="CD" @nullFlavor="NA" @sdtc:valueSet="2.16.840.1.113883.3.464.1003.104.12.1001"/\> The example below is not permitted since it will fail the Schematron validation: \<value xsi:type="CD" @nullFlavor="NA" @codeSystem="2.16.840.1.113883.6.90" @sdtc:valueSet="2.16.840.1.113883.3.464.1003.104.12.1001"/\>

Issue	Conf. #	Issue Type	Description	Clarifications
Medication Activity (V2) effectiveTime data type is fixed to IVL_TS	1098-7508	Minor (Workaround)	Even though the conformance statements specified that either a @low or a @value but not both are allowed, the substanceAdmnistration/effectiveTime element of MedicationActivity (V2) [2.16.840.1.113883.10.20.22.4.16:2014-06-09] is fixed to data type IVL_TS. Therefore, only substanceAdministration/effectiveTime[@value] is not permitted. **SHALL** contain exactly one [1..1] **effectiveTime** (CONF:1098-7508) such that it Note: This effectiveTime represents either the medication duration (i.e., the time the medication was started and stopped) or the single-administration timestamp. a. **SHOULD** contain zero or one [0..1] **@value** (CONF:1098-32775). Note: indicates a single-administration timestamp b. **SHOULD** contain zero or one [0..1] **low** (CONF:1098-32776). Note: indicates when medication started c. **MAY** contain zero or one [0..1] **high** (CONF:1098-32777). Note: indicates when medication stopped d. This effectiveTime **SHALL** contain either a low or a @value but not both (CONF:1098-32890).	As a workaround, single-administration timestamp must be submitted using substanceAdministration/effectiveTime/low[@value] For example: <effectiveTime> <low value="20160809163000"/> </effectiveTime> The following example <effectiveTime value="20160809163000"/> will fail the Schematron rule validation for CONF:1098-7508.

Issue	Conf. #	Issue Type	Description	Clarifications
Patient Data Section QDM (V2) [2.16.840.1.113883.10.20.24.2.1:2014-12-01] missing conformance statement for templateId @extension	1140-12796 1140-28405	Minor (Guidance)	The base HL7 QRDA Category I Release 1.3 Implementation Guide (IG) is missing a conformance statement (CONF:1140-28405) for the templateId @extension for the Patient Data Section QDM (V2) template. This is a known issue to the base IG. As shown in the base HL7 QRDA I Release 1.3 IG: **SHALL** contain exactly one [1..1] **templateId** (CONF:1140-12796) such that it a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.10.20.24.2.1" (CONF:1140-12797).	The correct conformance statements are: **SHALL** contain exactly one [1..1] **templateId** (CONF:1140-12796) such that it a. **SHALL** contain exactly one [1..1] **@root**="2.16.840.1.113883.10.20.24.2.1" (CONF:1140-12797). b. **SHALL** contain exactly one [1..1] **@extension**="2014-12-01" (CONF:1140-28405). The CMS QRDA I Schematron files for HQR and EP do contain rule for CONF:1140-28405. No change to Schematron is needed for this release.

Issue	Conf. #	Issue Type	Description	Clarifications
Validation for conformance statement 3277 may appear missing from the Schematrons for Reporting Parameter Section [2.16.840.1.113883.10.20.17.2.1].	23-3277 23-3278	Minor (Guidance)	Validation for conformance statement 3277 may appear missing from the Schematrons. As shown in the base HL7 QRDA I Release 1.3 IG: **SHALL** contain exactly one [1..1] **entry** (CONF:23-3277) such that it a. **SHALL** contain exactly one [1..1] **@typeCode**="DRIV" Is derived from (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002 **STATIC**) (CONF:23-3278). As shown in the base HL7 QRDA III Release 1 IG: **SHALL** contain exactly one [1..1] **entry** (CONF:3277) such that it a. **SHALL** contain exactly one [1..1] **@typeCode**="DRIV" Is derived from (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002 **STATIC**) (CONF:3278).	Schematron rules do validate both conformance statements (CONF:3277 and CONF:3278) correctly, but are checked as a single conformance. <sch:rule id="r-urn-oid-2.16.840.1.113883.10.20.17.2.1-3277-branch-3277-errors-abstract"abstract="true"> <sch:assert id="a-23-3278-branch-3277" test="@typeCode='DRIV'">SHALL contain exactly one [1..1] @typeCode="DRIV" Is derived from (CodeSystem: HL7ActRelationshipType urn:oid:2.16.840.1.113883.5.1002 STATIC) (CONF:3278).</sch:assert> </sch:rule> No change to Schematron is made for this release. Note: this issue also applies to CONF:3277 and CONF:3288 in the base HL7 QRDA III Release 1. No change is made to the "EP CMS 2016 QRDA Category III v2.2.sch" Schematron file.

Issue	Conf. #	Issue Type	Description	Clarifications
The text message of Schematron rules in the reverse order than they appear in the base HL7 QRDA Category I Release 1.3 IG (Applicable to: QRDA I for HQR and PQRS)	1140-27984 1140-27980	Typo	Medication Intolerance (V2) [2.16.840.1.113883.10.20.24.3.46:2014-12-01] As shown in the base HL7 QRDA I Release 1.3 IG: **SHALL** contain exactly one [1..1] **participant** (CONF:1140-27980) such that it a. **SHALL** contain exactly one [1..1] **@typeCode**="CSM" Consumable (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:1140-27984). b. **SHALL** contain exactly one [1..1] **participantRole** (CONF:1140-27981). As shown in the Schematron: SHALL contain exactly one [1..1] participant (CONF:1140-27980) such that it SHALL contain exactly one [1..1] participantRole (CONF:1140-27981). SHALL contain exactly one [1..1] @typeCode="CSM" Consumable (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:1140-27984)	The Schematron rules validate correctly according to the IG, though the text message of the Schematron rules do not match the order of these conformance statements exactly as they appear in the base HL7 QRDA I Implementation Guide. No change to Schematron is made for this release.

Issue	Conf. #	Issue Type	Description	Clarifications
The text message of Schematron rules in the reverse order than they appear in the base HL7 QRDA I Implementation Guide (Applicable to: QRDA I for HQR and PQRS)	1140-27972 1140-27976 1140-27973	Typo	Medication Allergy (V2) [2.16.840.1.113883.10.20.24.3.44:2014-12-01] As shown in the base HL7 QRDA I Release 1.3 IG: **SHALL** contain exactly one [1..1] **participant** (CONF:1140-27972) such that it a. **SHALL** contain exactly one [1..1] **@typeCode**="CSM" Consumable (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:1140-27976). b. **SHALL** contain exactly one [1..1] **participantRole** (CONF:1140-27973). As shown in the Schematron: <sch:assert id="a-1140-27972" test="count(cda:participant[@typeCode='CSM'][count(cda:participantRole)=1])=1">SHALL contain exactly one [1..1] participant (CONF:1140-27972) such that it SHALL contain exactly one [1..1] participantRole (CONF:1140-27973). SHALL contain exactly one [1..1] @typeCode="CSM" Consumable (CodeSystem: HL7ParticipationType urn:oid:2.16.840.1.113883.5.90) (CONF:1140-27976).</sch:assert>	The Schematron rules validate correctly according to the IG, though the text message of the Schematron rules do not match the order of these conformance statements exactly as they appear in the base HL7 QRDA I Implementation Guide. No change to Schematron is made for this release.