

Cypress™

Cypress Tech Talk

January 29, 2019



MITRE

The Office of the National Coordinator for
Health Information Technology



Agenda

- Software Updates
 - Bugs to be addressed in 4.0.2 patch release
- Cypress Versions
- Open Discussion
- Contact Information

Software Updates

Bugs addressed in 4.0.2 patch release

- An “Assessment, Performed” Result should not be reported in a nested Result Template. ([CYPRESS-1498](#), [CYPRESS-1544](#))
- ‘Randomized’ patient birthdate can cause calculation errors. ([CYPRESS-1503](#))
- Confusing display of Direct Reference Codes in “C4 Filter Tests.” ([CYPRESS-1533](#))
- Use updated ‘Related To’ template instead of ‘Fulfills’ for C1 Record Sample test. ([CYPRESS-1537](#))
- Strictly enforce the existence of a code-negation pair within the same entry for C1 Record Sample verification. ([CYPRESS-1538](#))
- Do not export patients using the ‘Other’ code 2131-1. ([CYPRESS-1539](#))
- An id not required in the Encounter Performed Act template in QRDA Category I R5. ([CYPRESS-1541](#))

Software Updates

Bugs addressed in 4.0.2 patch release

Resources

Tech Talks

Release Notes

Future Releases


FAQ

Cypress v4.0.2

The Cypress 4.0.2 patch is scheduled for released on 1/31/18. Changelog for the release is below

Cypress Bugs Addressed

- An "Assessment, Performed" Result should not be reported in a nested Result Template. ([CYPRESS-1498](#), [CYPRESS-1544](#))
- 'Randomized' patient birthdate can cause calculation errors. ([CYPRESS-1503](#))
- Confusing display of Direct Reference Codes in "C4 Filter Tests." ([CYPRESS-1533](#))
- Use updated 'Related To' template instead of 'Fulfills' for C1 Record Sample test. ([CYPRESS-1537](#))
- Strictly enforce the existence of a code-negation pair within the same entry for C1 Record Sample verification. ([CYPRESS-1538](#))
- Do not export patients using the 'Other' code 2131-1. ([CYPRESS-1539](#))
- An id not required in the Encounter Performed Act template in QRDA Category I R5. ([CYPRESS-1541](#))


CYPRESS Issue Tracker / CYPRESS-1533

C4 Filter does not display correct code or value set for Problems

Edit
Comment
Assign
More
Open
In Progress (2)
Workflow

Details

Type: Bug/Issue
Status: IN PROGRESS
Priority: Moderate
Resolution: Unresolved
Labels: KnownBug4.0.1

Description

Hi, we are going through certification in just a few hours and are seeing the following filter criteria for C4:

Problems SNOMEDCT codes in Congenital absence of cervix (disorder) (code: drc-2aee01847828ef298f92805dcf74e47c73f590a1ce12a00cedb235f1e691e47e)

My assumption is that this is happening because the code is not contained in a value set but rather as a cql "code" element as follows:

code "Congenital absence of cervix (disorder)": '37687000' from "SNOMEDCT:2017-09"

Search
Save as
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Export

labels = KnownBug4.0.1

Order by

CYPRESS-1541
File failed import error for ...
CYPRESS-1537
Cypress is still expecting t...
CYPRESS-1533
C4 Filter does not display ...
CYPRESS-1504
C1 Test error - QRDA Cat I ...
CYPRESS-1503
Multiple QRDA files for on...

CYPRESS Issue Tracker / CYPRESS-1541
File failed import error for 2019 eQMs

Edit
Comment
Assign
More
Open
In Progress (2)
Workflow

Details

Type: Bug/Issue
Status: IN PROGRESS
Priority: Moderate
Resolution: Unresolved
Labels: KnownBug4.0.1, QRDA-I
Measure Type: EH

People

Assignee:
Reporter:
Votes:

Software Updates

CYPRESS-1498/CYPRESS-1544: Result Value embedded in Observation

■ Precondition

- A Cypress 4.0.1 instance
- Measures with an Assessment, Performed with a “Result”
 - Ex: CMS149v7, CMS56v7, CMS66v7

■ Issue

- Cypress exports patients for these measures that contain Assessment, Performed elements with a “Result” value
- The result is embedded in an Observation
- QRDA Category I R5 expects the Result in the top level Assessment element

■ Changes:

- Changes to both export and read patient files according to the correct template format
- Note: Changed from previous format in QRDA I R4

```

<entry>
  <observation classCode="OBS" moodCode="EVN" >
    <!-- Assessment Performed -->
    <templateId
root="2.16.840.1.113883.10.20.24.3.144" extension="2017-08-01"
/>
    ...
    <entryRelationship typeCode="REFR">
      <observation classCode="OBS" moodCode="EVN">
        <!-- Conforms to C-CDA R2 Result
Observation (V2) -->
        <templateId
root="2.16.840.1.113883.10.20.22.4.2" extension="2015-08-01"/>
        ...
        <value xsi:type="PQ" value="35.3"
unit="%"/>
      </observation>
    </entryRelationship>
  </observation>
</entry>

```

```

<observation classCode="OBS" moodCode="EVN">
  <templateId root="2.16.840.1.113883.10.20.22.4.2"
extension="2015-08-01" />
  <value xsi:type="PQ" value="35.3" unit="% " />
  ....
</observation>

```

Should be:

```

<value xsi:type="PQ" value="35.3" unit="% " />

```

Guidance for Reporting Diagnostic Study Performed Results Data in 2018 CMS QRDA I Reports

■ On January 16, 2019

- The Centers for Medicare & Medicaid Services (CMS) and The Joint Commission (TJC) are releasing guidance for [reporting diagnostic test data in the Diagnostic Study Performed \(V3\) template of Quality Reporting Document Architecture \(QRDA\) Category I files](#). This affects the electronic clinical [quality measure \(eCQM\)](#) CMS31v6 - Hearing Screening Prior To Hospital Discharge only. The [2018 CMS QRDA Category I Implementation Guide \(IG\) for Hospital Quality Reporting](#) allows for two ways of reporting the result of a diagnostic test in the Diagnostic Study Performed (V3) template:
 - Using the element “value” inherited from its parent template Procedure Activity Observation (V2), or
 - Using the contained template Result (V3).
- For 2018 reporting, CMS has aligned with TJC to only use the first option. Result data for the Diagnostic Study Performed template must be in the value element in order to be processed by CMS.

■ <https://ecqi.healthit.gov/ecqi/ecqi-news/guidance-reporting-diagnostic-study-performed-results-data-2018-cms-qrda-i-reports>

Software Updates

CYPRESS-1503: Differing birthdates for duplicated patients in Cypress

■ Precondition

- A Cypress 4.0.1 instance
- The following measures
 - CMS82v6, Maternal Depression Screening
 - CMS52v7, HIV/AIDS PCP Prophylaxis
 - Measures where age is calculated with sub-year precision (Month, Week, Day)

■ Issue

- When duplicating patients, Cypress can (but does not always) change the birthdate
- Normally, this doesn't affect measure calculation
- However, occasionally the “duplicated” patient's birthdate will change measure results for the patient

■ Changes

- Cypress will now check for measure calculation changes as a result of birthdate changes and will not provide patient files with birthdates that cause this problem

▲ Turns 6 Months of Age During Measurement Period

```
["Patient Characteristic Birthdate"] BirthDate
  where "CalendarAgeInMonthsAt"(BirthDate.birthDatetime, start of "Measurement Period") < 6
    and "CalendarAgeInMonthsAt"(BirthDate.birthDatetime, end of "Measurement Period") >= 6
```

CYPRESS-1525: Patient Characteristic Sex in Record Sample

■ Precondition

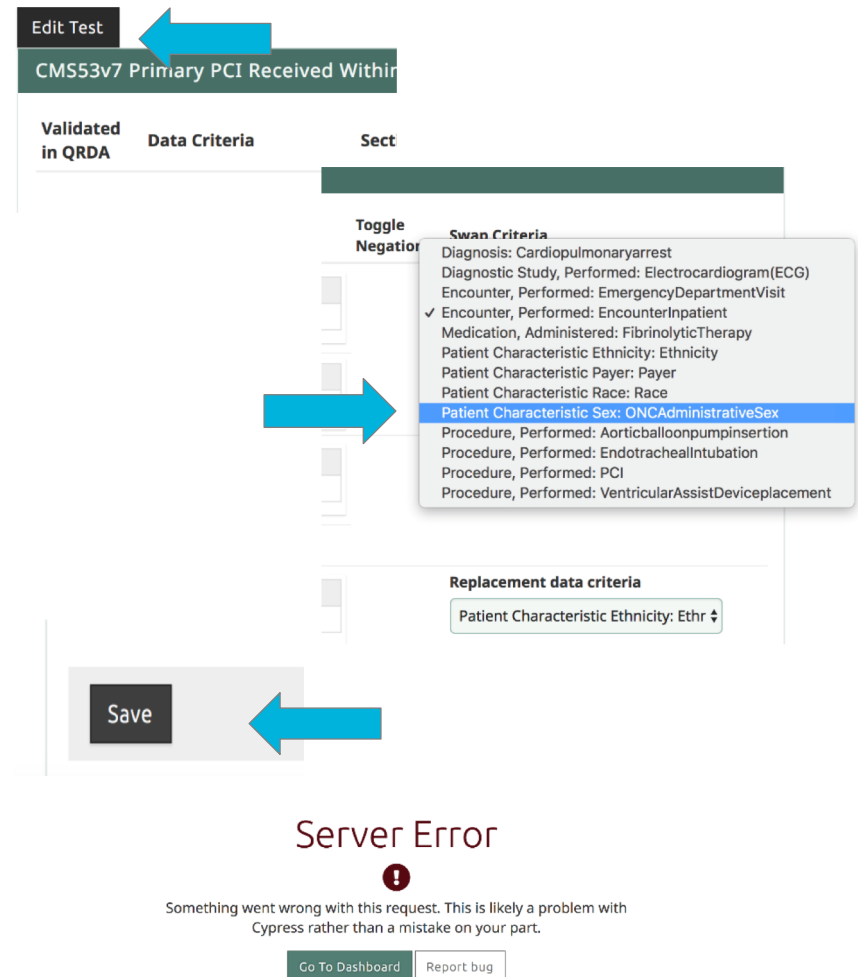
- A Cypress 4.0.1 instance
- Editing Record Sample Test

■ Issue

- When editing a Record Sample Test Data Criteria list, there are a number of options for replacement data criteria
- If the user selects Patient Characteristic Sex, and saves the test, they receive a Server Error message.

■ Workaround:

- Vendors and ATLs should not swap Patient Characteristic Sex in, should use any other criteria



CYPRESS-1533: Display of Direct Reference Codes

■ Precondition

- A Cypress 4.0.1 instance
- Filtering Criteria or Record Sample Criteria

■ Issue

- Cypress displays direct reference code (drc) information with an underlying UID rather than human readable format

■ Changes

- Cypress has made changes to the user interface to display a readable drc that can be input into EHR systems

2 ⚡ Filter Patients

Remove any patients not meeting the following criteria.

Problems

SNOMEDCT codes in Congenital absence of cervix (disorder) (code: drc-2aee01847828ef298f92805dcf74e47c73f590a1ce12a00cedb235f1e691e47e)

Characteristic Ethnicity	Ethnicity: 2.16.840.1.114222.4.11.837
Assessment, Performed:	Risk for venous thromboembolism:
Assessment, Performed	drc-522a38859e8337cb6214742610b449c149172dccc97f176b0b580b4d3f975004
Intervention,	Comfort Measures: 1.3.6.1.4.1.33895.1.3.0.45

2 ⚡ Filter Patients

Remove any patients not meeting the following criteria.

Problems

SNOMEDCT codes in Congenital absence of cervix (disorder) (code: 37687000)

Software Updates

CYPRESS-1537: “relatedTo” attribute in Record Sample

■ Precondition

- A Cypress 4.0.1 instance
- Measures with “Communication: From Provider To Provider”
 - Uses “relatedTo” attribute
 - Ex: CMS50v7
- “Communication: From Provider To Provider” is randomly selected for test

■ Issue

- Cypress expecting retired “fulfills” template id for the “Communication: From Provider To Provider” attribute “relatedTo”
- “relatedTo” id should be accepted instead

■ Changes:

- Cypress now expects the appropriate “Related To” template id (2.16.840.1.113883.10.20.24.3.150)

Edit Test

CMS50v7 Closing the Referral Loop: Receipt of Specialist Report

Validated in QRDA	Data Criteria	Section	Required Attributes	Value Set(s)	Recorder
		Valuesets		Consultant Report 2.16.840.1.113883.3.464.1003.121.12.1006	Code
	Communication: From Provider To Provider		Attributes	relatedTo • relatedTo	Recorder

Previous version:

9.5 Fulfills (V2)

[Fulfills \(V2\) \(urn:hl7ii:2.16.840.1.113883.10.20.24.3.126:2016-08-01\)](#)

Cypress should be expecting:

4.2 Related To

```
[sdctc:inFulfillmentOf1: identifier
urn:hl7ii:2.16.840.1.113883.10.20.24.3.150:2017-08-01 (open)]
```

CYPRESS-1538: Non-strict Code Correlation for Record Sample

■ Precondition

- A Cypress 4.0.1 instance
- Record Sample Test
- Criteria with corresponding attribute
- File with both correct codes in separate file locations

■ Issue

- Cypress checks for the appropriate attributes in correlation with a sample data criteria input
- In some cases, the attribute code may be in a different location in the file than the corresponding data criteria
- Cypress still passes these files as correct even though code was not put in under the correct data criteria

■ Changes

- Cypress will only pass a file as containing the correct data criteria if the corresponding attribute is associated with that data criteria
- Otherwise will display appropriate error

Criteria	Code
Lifestyle Recommendation	2.16.840.1.113883.3.600.1508
Dietary Recommendations	2.16.840.1.113883.3.600.1515
Moderation of ETOH Consumption Recommendation	2.16.840.1.113883.3.600.823
Weight Reduction Recommended	2.16.840.1.113883.3.600.1510
Physical Activity Recommendation	2.16.840.1.113883.3.600.1518
Referral to Alternative Provider / Primary Care Provider	2.16.840.1.113883.3.600.1475

Attributes	Attribute code
negationRationale	2.16.840.1.113883.3.600.791

```
<code xsi:type="CD" code="183856001" codeSystem="2.16.840.1.113883.6.96"/>
```

```
<value xsi:type="CD" code="105480006" codeSystem="2.16.840.1.113883.6.96"/>
```

Both codes in file but in separate entries

CYPRESS-1539: Export of Patients with 'Other Race' Codes

■ Precondition

- Cypress includes test patients that use the 'Other' Race code 2131-1.

■ Issue

- When following the Electronic Clinical Quality Measure Logic and Implementation Guidance "Other Race 2131-1 should not be used because missing patient race information should be described using null values (described in the following paragraphs). "

■ Changes

- Cypress test decks will only include patients with the following race codes:
 - 1002-5 American Indian or Alaska Native
 - 2028-9 Asian
 - 2054-5 Black or African American
 - 2076-8 Native Hawaiian or Other Pacific Islander
 - 2106-3 White

Patient Details

DOB	August 27, 1956
Gender	Male
Race	Other Race
Ethnicity	Not Hispanic or Latino

CYPRESS-1541: ID Requirement in “Encounter, Performed” template act element

■ Precondition

- A Cypress 4.0.1 instance
- Patient with Encounter, Performed

■ Issue

- Cypress is incorrectly requires an id element in the Encounter Performed Act template instead of the “Encounter, Performed” template.

■ Changes

- Cypress has been updated to import the id from the Encounter, Performed template.

Figure 45: Encounter Performed Act Example

```
<act classCode="ACT" moodCode="EVN">
  <!--Encounter performed Act -->
  <templateId root="2.16.840.1.113883.10.20.24.3.133"/>
  <id root="ec8a6ff8-ed4b-4f7e-82c3-e98e58b45de7"/>
  <code code="ENC" codeSystem="2.16.840.1.113883.5.6" displayName="Encounter"
codeSystemName="ActClass"/>
  <entryRelationship typeCode="SUBJ">
    <encounter classCode="ENC" moodCode="EVN">
      <!-- Conforms to C-CDA R2.1 Encounter Activity (V3) -->
      <templateId root="2.16.840.1.113883.10.20.22.4.49" extension="2015-08-01"/>
      <!-- Encounter Performed (V3) templateId-->
      <templateId root="2.16.840.1.113883.10.20.24.3.23" extension="2016-02-01"/>
      <id root="12345678-9d11-439e-92b3-5d9815ff4de1"/>
      <code code="4525004" displayName="Emergency Department visit"
codeSystem="2.16.840.1.113883.6.96" codeSystemName="SNOMED CT"
sdct:valueSet="{SQDMElementValueSetOID}">
      <text>Encounter, Performed: Emergency Department Visit</text>
      <statusCode code="completed"/>
      <effectiveTime>
        <!-- QDM Attribute: admission datetime -->
        <low value="20150301090000+0500"/>
        <!-- QDM Attribute: discharge datetime -->
        <high value="20150301030000+0500"/>
      </effectiveTime>
    </encounter>
  </entryRelationship>
</act>
```

Figure 40: Encounter Performed Act (V2) Example

```
<act classCode="ACT" moodCode="EVN">
  <!--Encounter performed Act (V2) -->
  <templateId root="2.16.840.1.113883.10.20.24.3.133" extension="2017-08-01"/>
  <code code="ENC" codeSystem="2.16.840.1.113883.5.6" displayName="Encounter"
codeSystemName="ActClass"/>
  <entryRelationship typeCode="SUBJ">
    <encounter classCode="ENC" moodCode="EVN">
      <!-- Conforms to C-CDA R2.1 Encounter Activity (V3) -->
      <templateId root="2.16.840.1.113883.10.20.22.4.49" extension="2015-08-01"/>
      <!-- Encounter Performed (V4) templateId-->
      <templateId root="2.16.840.1.113883.10.20.24.3.23" extension="2017-08-01"/>
      <id root="12345678-9d11-439e-92b3-5d9815ff4de1"/>
      <code code="4525004" displayName="Emergency Department visit"
codeSystem="2.16.840.1.113883.6.96" codeSystemName="SNOMED CT"/>
      <text>Encounter, Performed: Emergency Department Visit</text>
      <statusCode code="completed"/>
      <effectiveTime>
        <!-- QDM Attribute: Relevant Period - admission datetime -->
        <low value="20170301090000"/>
        <!-- QDM Attribute: Relevant Period - discharge datetime -->
        <high value="20170301130000"/>
      </effectiveTime>
    </encounter>
  </entryRelationship>
</act>
```

Cypress Versions

Version	Dates	Measures Supported
V 3.2.3	December 14, 2017	Support for the eCQMs for the 2018 Reporting/Performance Period *will be supported alongside Cypress v4
V4.0.1	October 11, 2018	Support for the eCQMs for the 2019 Reporting/Performance Period Support for Clinical Quality Language (CQL) calculation
V4.0.2	January 31, 2019	

Bundle Version	Dates	Features
2017.0.3	April 24, 2018	Cypress v3 only “Z1 BH Adult” updated for CMS128v6
2017.0.4	September 25, 2018	Cypress v3 only Errata update to fix ‘Download All Patients’ feature when 2017.0.3 and 2017.0.2 are installed simultaneously
2018.0.1	July 26, 2018	Cypress v4 only CQL-based measures released in 2018 for the 2019 reporting year eCQM Value Sets as of 5/4/2018.
2018.1.0	October 11, 2018	Cypress v4 only CQL-based measures released in 2018 for the 2019 reporting year eCQM Value Sets as of 9/17/2018.

OPEN DISCUSSION

Next Cypress Tech Talk

- Tuesday, February 12, 2019 at 1pm ET
- To join online, visit:
<https://meetings.cms.gov/orion/joinmeeting.do?MTID=98271705d4bc4ad148cf1e39d5c7408>
- To join via phone, dial: 1-877-267-1577
- Meeting Number: 998 084 717
- Meeting link, as well as a calendar event file, available at:
 - <https://www.healthit.gov/cypress/techtalks.html>

Notes

- **Completed Webinars will be posted on the Cypress Website on the Timeline Tab**
 - <https://www.healthit.gov/cypress/techtalks.html>
- **Send questions and feedback to the Cypress Talk List at**
 - project-cypress-talk@googlegroups.com
- **Report bugs and issues to the Cypress JIRA at**
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