DICOM Correction Proposal

Status	Assigned
Date of Last Update	2015/03/23
Person Assigned	Harry Solomon
Submitter Name	Harry Solomon
Submission Date	2015/03/23

Correction Number	CP-1484
Log Summary: Add ordering decision support to CDA	
Name of Standard PS3.20 2015b	
Rationale for Correction: Extracted from Sup 155 LB, at request of WG6. Adds structured entry for documentation of clinical decision support, to utilize data elements as required by U.S. (and other) regulation, and harmonized with IHE Radiology profile.	
Correction Wording:	

Add the following structured entry to the Request subsection

9.8.1 Request

…

	>	entry	0..*	MAY				
CDSRecordEntry[*]	>>	observation	1..1	SHALL				
	>>@	@classCode	1..1	SHALL	CS	SHALL	OBS	
	>>@	@moodCode	1..1	SHALL		SHALL	EVN	
SessionID	>>>	id	1..1	SHALL	II		*OBX-21, where OBX-3 = 76515-6^LN*	
	>>>	code	1..1	SHALL	CD	SHALL	(76515-6, LOINC, "Requested Procedure is Appropriate")	

CDSDecision	>>>	value	1..1	SHALL	CD	SHALL	**ValueSet** [LOINC Y/N/NA 1.3.6.1.4.1.12009.10.1.163](#) *OBX-5, where OBX-3 = 76515-6^LN*	
	>>>@	@xsi:type	1..1	SHALL	ST	SHALL	CD	
	>>>	statusCode	1..1	SHALL	CS	SHALL	COMPLETED	
CDSDecisionTime	>>>	effectiveTime	0..1	SHOULD	TS			
CDSDecisionCriteria	>>>	methodCode	0..1	MAY	CD		**ConceptDomain** AppropriateUseCriteria *OBX-17, where OBX-3 = 76515-6^LN*	
	>>>	text	0..1	SHOULD	ED			
Ref	>>>>	reference	1..1	SHALL	URL (XML IDREF)		*#contentRef*	
	>>>	author	1..1	SHALL				
	>>>>	assignedAuthor	1..1	SHALL				
CDSServiceID	>>>>>	id	1..1	SHALL	II		*OBX-15, where OBX-3 = 76515-6^LN*	
	>>>>>>	assignedAuthoringDevice	0..1	MAY				
CDSServiceName	>>>>>>	softwareName	1..1	SHALL	ST			
	>>>	participant	1..1	SHALL				
	>>>@	@typeCode	1..1	SHALL	CS	SHALL	REF	
	>>>>	participantRole	1..1	SHALL				
	>>>>@	@classCode	1..1	SHALL	CS	SHALL	PROV	
OrderingProviderID	>>>>>	id	1..1	SHALL	II		*Ordering Provider ORC-12.1 + ORC-12.9.2*	
	>>>>>>	playingEntity	0..1	MAY				
	>>>>>>@	@classCode	1..1	SHALL	CS	SHALL	PSN	

OrderingProviderName	>>>>>>>	name	1..1	SHALL	PN		*Ordering Provider ORC-12*	
	>>	entryRelationship	0..1	SHOULD				
	>>@	@typeCode	1..1	SHALL	CS	SHALL	GEVL	
	>>>	procedure	1..1	SHALL				
	>>>@	@classCode	1..1	SHALL	CS	SHALL	PROC	
	>>>@	@moodCode	1..1	SHALL	CS	SHALL	RQO	
ReqProcCode	>>>>	code	1..1	SHALL	CD		**ConceptDomain** ProedureCode *Universal Service ID OBR-4*	

9.8.1.1 text/content and @ID – CDS Record

The Request section narrative text block MAY include content blocks recording clinical decision support assessments of the request with respect to the indications, patient characteristics, and relevant guidelines. Each such `text/content` SHALL include an XML `ID` attribute that serves as the business name discriminator associated with an instantiation of the element.   Even if only one content block is instantiated, the ID attribute shall be present.

Each clinical decision support assessment record SHOULD have a corresponding structured entry.

9.8.1.2 entry/observation

The Request section MAY include entries corresponding to the clinical decision support assessments in the narrative text block.

9.8.1.3 entry/observation/text/reference

The `observation` entry SHALL include a `text/reference` element, whose `value` attribute **SHALL** begin with a '#' and **SHALL** point to its corresponding narrative content block. See Section 9.1.1.1.

9.8.1.4 entry/observation/methodCode

The `entry/observation/methodCode` is the name of the Appropriate Use Criteria (AUC). Binding to the Value Set Concept Domain may be specific to the locale.

9.8.1.5 entry/observation/author/assignedAuthor

The `entry/observation/author/assignedAuthor` identifies the clinical decision support software application or service that evalutes a requested procedure against relevant Appropriate Use Criteria.   This CDS is identified by the `id` and `assignedAuthoringDevice/softwareName` elements.

Notes: The CDS service is distinct from the AUC rules. An AUC rule might be implemented by multiple CDS services, and a CDS service might evaluate against multiple rules.

In the United States, the Department of Health and Human Services will certify and register specific CDS software or services for advanced imaging procedures, and that registration number might be used as the id extension with DHHS as the assigning authority root.   It is recommended that the `assignedAuthoringDevice/softwareName` should include sufficient information to identify the specific instance of the CDS software, e.g., the name and version number of the software, and its execution location (e.g., as part of a local EMR instance, or as a remote web service).

9.8.1.6 entry/observation/participant/@typeCode=REF

The `observation` entry SHALL include a `participant` element with `@typeCode` value REF identifying the the ordering physician for the requested procedure. This will typically be the same as the physician identified by the `participant` element with `@typeCode` value REF in the header of the document (see Imaging Header).

9.8.1.7 entry/observation/actRelationship

The `entry/observation/actRelationship` SHOULD reference the requested procedure code that was evaluated by the CDS service.

Amend the example

Figure 1: Request section example

```
<section classCode="DOCSECT" moodCode="EVN">
      <templateId root="1.2.840.10008.20.x2.x6" />
      <id root="1.2.840.10213.2.62.7906994785528.114289506"/>
      <code code="55115-0"
          codeSystem="2.16.840.1.113883.6.1"
          codeSystemName="LOINC"
          displayName="Request" />
      <title>Request</title>
      <text>PTA (Iliac Angioplasty) for treatment of symptomatic
atherosclerotic disease in both iliac arteries.
         <content ID="CDS001">Procedure ordered by Pat Smith, MD,
NPI:8740944987. Classified APPROPRIATE by RadCDS based on ACR Select criteria
at 2015-07-21 10:52:31 CDT
         </content>
      </text>
      <entry>
         <observation classCode="OBS" moodCode="EVN" ID="CDS001-E">
            <id root="1.2.840.90012.1097.9961.100" extension="20150721-16554">
            <code code="76515-6"
               codeSystem="2.16.840.1.113883.6.1"
```

```
                    codeSystemName="LOINC"
                    displayName="Requested Procedure is Appropriate" />
              <text> <reference value="#CDS001"> </text>
              <statusCode code="completed"/>
              <effectiveTime value="20150721105231+0500"/>
              <value xsi:type="CD" code="LA33-6"
                codeSystem="2.16.840.1.113883.6.1"
                codeSystemName="LOINC"
                displayName="yes"/>

              <methodCode code="CDS-003"
                codeSystem="2.16.840.1.113883.19.166"
                codeSystemName="US DHHS CDS"
                displayName="ACR Select" />
               <author>
                  <time value="20150721105231-0400" />
                  <assignedAuthor>
                      <id root="2.16.840.1.113883.19.169" extension="900104">
                      <assignedAuthoringDevice>
                          <softwareName>RadCDS</softwareName >
                      </assignedAuthoringDevice>
                  </assignedAuthor>
              </author>
              <participant typeCode="REF">
                  <participantRole>
                      <id root="2.16.840.1.113883.4.6" extension="8740944987" />
                      <playingEntity classCode="PSN">
                          <name>Pat Smith, MD</name>
                      </playingEntity>
                  </participantRole>
              </participant>
          </observation>
      </entry>
</section>
```