DICOM Correction Item

Correction Number CP-849	
Log Summary: Clarify Observation Context	
Type of Modification Clarification	Name of Standard PS 3.3-2008, PS 3.16-2008
Rationale for Correction: The modules listed in C.17.5 as setting the initial Observation Context include modules that do not in fact set that context. The list is clarified. The presence of the Patient Study Module in the SR IODs is confusing, as it is not part of the inherited Observation Subject Context (Patient). Its relationship to the content of the SR Content Tree is clarified. The Procedure Context Template 1005 is clarified.	
Sections of documents affected PS 3.3 Section C.17 PS 3.16 Annex A, D	
Correction Wording:	

Modify PS3.3 Section C.17.2

Table C.17-2
SR DOCUMENT GENERAL MODULE ATTRIBUTES

Attribute Name	Tag	Type	Attribute Description
…			
Referenced Request Sequence	(0040,A370)	1C	Identifies Requested Procedures which are being fulfilled (completely or partially) by creation of this Document. One or more Items may be included in this sequence. Required if this Document fulfills at least one Requested Procedure. **May be present otherwise.**
…			

Modify PS3.3 Section C.17.5

C.17.5 Observation Context Encoding

Observation Context describes who or what is performing the interpretation **(observer context)**, whether the examination of evidence is direct or quoted **(quotation mode)**, what procedure generated the evidence that is being interpreted **(procedure context)**, and who or what is the subject of the evidence that is being interpreted **(subject context)**.

Initial Observation Context is defined outside the SR Document Content tree by other modules in the SR IOD**.** ~~**(i.e., Patient Module, Specimen Identification, the General Study, Patient Study, SR Document Series, Frame of Reference, Synchronization, General Equipment and SR Document General**~~

~~modules)~~ **The Patient Module specifies the default Subject Context, the General Study Module specifies the default Procedure Context, and the SR Document General Module specifies the default Observer Context. The default context has the meaning "this Structured Report was produced by the observer identified in the SR Document General module, using direct observation, for the procedure identified in the General Study Module, and is about the patient identified in the Patient Module."** Observation Context defined by attributes in these modules applies to all Content Items in the SR Document Content tree and need not be explicitly coded in the tree. The initial Observation Context from outside the tree can be explicitly replaced **for the entire tree, or for any sub-tree**.

Observer Context is set from the Author Observer Sequence (0040,A078), if present, or secondarily from the Verifying Observer Sequence (0040,A073). If neither is present, the Observer Context is undefined.

Note: In the absence of Observer Context, it may be presumed that the observations were generated by or with the equipment identified in the General Equipment Module.

The Procedure Context is set from the Study Instance UID (0020,000D), Study ID (0020,0010), Accession Number (0008,0050), and Procedure Code Sequence (0008,1032) of the General Study Module. The Referenced Request Sequence (0040,A370) might include an Item with the same Study Instance UID that further elaborates the Procedure Context, e.g., providing Placer Order Number (0040,2016) and/or Filler Order Number (0040,2017). If the Referenced Request Sequence includes Items with different Study Instance UIDs, those shall be treated as Procedure Context only if explicitly encoded in the Content Tree.

Medical or clinical characteristics of the patient specified in the Patient Study Module, such as in attributes Patient's Size (0010,1020) and Patient's Weight (0010,1030), shall not be inherited by the Content Tree as part of the default Patient Context. Such characteristics must be specifically encoded in the Content Tree to be part of the Structured Report.

Note: The Patient Study Module may be included in SR SOP Instances. As part of the Study IE shared by all SOP Instances within a Study, such inclusion should be consistent across all Instances. However, its purpose is to provide a minimum set of clinical context for the (initial) interpretation of the images or waveforms of the study. An SR SOP Instance that documents the interpretation must explicitly describe the relevant clinical context in the SR Content Tree.

If a Content Item in the SR Document Content tree has Observation Context different from the **initial** context already encoded elsewhere in the IOD, the context information applying to that Content Item shall be encoded as child nodes of the Content Item in the tree using the HAS OBS CONTEXT relationship. That is, Observation Context is a property of its parent Content Item. The context information specified in the Observation Context child nodes (i.e. target of the HAS OBS CONTEXT relationship) ~~adds to~~ **sets** the Observation Context of their parent node Content item**. Observation Context is encoded in the same manner as any other Content Item.**

The Observation Context~~, and shall apply~~ applies to all the by-value descendant nodes of that parent node**,** regardless of the relationship type between the parent and the descendant nodes**, until and unless the context of a descendant node is reset by other Observation Context Content Items**. ~~**Observation Context is encoded in the same manner as any other Content Item. See the example in Figure C.17.5-1**~~. Observation Context shall not be inherited across by-reference relationships. **The four dimensions of Observation Context (observer context, quotation mode, procedure context, and subject context) may be reset independently; e.g., resetting the subject context does not reset the observer or procedure context, or the quotation mode. See the example in Figure C.17.5-1.**

Note~~s~~: ~~**1.**~~ For example, the "subject context" may be defined by attaching an appropriate content item to the root node with a HAS OBS CONTEXT relationship. This "subject context" then applies not only to the root node, but to all its descendants, until such time as a content item explicitly replaces the "subject context" attribute, the new value of which is then inherited by all of that node's descendants.

~~**2. For example, one can extend the observation context that specifies the procedure being interpreted, either from that inherited from outside the tree or from ancestors within the tree, by adding further content items that specify identifying information, such as HL7 placer and filler order numbers.**~~

Modify PS3.16 Annex A

TID 1005 Procedure Context

This template contains identifying (and optionally descriptive) attributes of the procedure that is the source of evidence being interpreted.

Whenever this template is invoked, all previously inherited attributes of Procedure Context are discarded and replaced.

Note: If an observed digital image is identified by other than a DICOM UID, a Study Instance UID must be generated for the non-DICOM evidence. The same must be done to document interpretation of hard-copy radiographs generated outside of the scope of the DICOM system.

TID 1005
PROCEDURE CONTEXT
Type: Non-Extensible

	NL	Rel with Parent	VT	Concept Name	VM	Req Type	Condition	Value Set Constraint
1			UIDREF	EV (121018, DCM, "Procedure Study Instance UID")	1	U		Defaults to Study Instance UID (0020,000D) of General Study Module
2			UIDREF	EV (121019, DCM, "Procedure Study Component UID")	1-n	U		~~**Defaults to Referenced SOP Instance UID (0008,1155) in Referenced Performed Procedure Step Sequence (0008,1111) of General Series Module**~~
3			TEXT	EV (121020, DCM, "~~**Procedure HL7**~~ Placer Number~~**of Evidence**~~")	1	U		~~**Defaults to (0040,2016)**~~
4	**>**	**HAS CONCEPT MOD**	**TEXT**	**EV (111090, DCM, "Issuer of Identifier"**	**1**	**U**		**See note**
~~**4**~~ **5**			TEXT	EV (121021, DCM, "~~**Procedure HL7**~~ Filler Number~~**of Evidence**~~")	1	U		~~**Defaults to (0040,2017)**~~
6	**>**	**HAS CONCEPT MOD**	**TEXT**	**EV (111090, DCM, "Issuer of Identifier"**	**1**	**U**		**See note**
~~**5**~~ **7**			TEXT	EV(121022, DCM, "~~**Procedure**~~ Accession Number")	1	U		Defaults to (0008,0050)
8	**>**	**HAS CONCEPT MOD**	**TEXT**	**EV (111090, DCM, "Issuer of Identifier"**	**1**	**U**		**See note**
~~**6**~~ **9**			CODE	EV(121023, DCM, "Procedure Code")	1**-n**	U		Defaults to Procedure Code Sequence (0008,1032) of General Study Module

Content Item Descriptions

Rows 4, 6, 8	**The issuer shall be formatted in accordance with the HL7v2 Hierarchic Designator Data Type. That format is [*Namespace ID*]^[*Universal ID*^*Universal ID Type*], where *Namespace ID* identifies an entity within the local namespace or domain, *Universal ID* is a universal or unique identifier for an entity, and *Universal ID Type* specifies the standard format of the Universal ID (see HL7 v2 Section 2.A.33).**

Modify PS3.16 Annex D

DICOM Code Definitions (Coding Scheme Designator "DCM" Coding Scheme Version "01")

Code Value	Code Meaning	Definition	Notes
…			
121018	Procedure Study Instance UID	**Unique identifier for the Study or Requested Procedure**	
121019	Procedure Study Component UID	**Unique identifier for the Performed Procedure Step**	
121020	~~**Procedure HL7**~~ Placer Number ~~**of Evidence**~~	**Identifier for the Order (or Service Request) assigned by the order placer system**	
121021	~~**Procedure HL7**~~ Filler Number ~~**of Evidence**~~	**Identifier for the Order (or Service Request) assigned by the order filler system**	
121022	~~**Procedure**~~ Accession Number	**Identifier for the Order (or Service Request) assigned by the department information system**	
121023	Procedure Code	**Type of procedure scheduled or performed**	
…			
110190	**Issuer of Identifier**	**System, organization, agency, or department that has assigned an instance identifier (such as placer or filler number, patient or provider identifier, etc.)**	