

DICOM Correction Proposal

STATUS	Letter Ballot
Date of Last Update	2016/01/18
Person Assigned	Ulrich Busch (ulrich.busch@varian.com)
Submitter Name	Ulrich Busch (ulrich.busch@varian.com)
Submission Date	2015/09/16

Correction Number	CP-1539
Log Summary:	Add Equivalent Purpose Code
Name of Standard	PS3.3, PS3.6

Rationale for Correction:

There is an increasing need to convey standardized identification of items identified by codes for various specific context in addition to the coding used primarily by the user. The Code Sequence Macro has the facility of carrying such additional codes in the Equivalent Code Sequence (0008,0121), introduced by CP1031.

This Change proposal adds the facility to identify the specific context of equivalent codes when they are introduced for a specific purpose. Any relevant Context IDs defined by clinical trial or other organizations may be used in this coding the purpose.

The following exemplifies the use case:

Examples of the use of the Additional RT ROI Identification Code Sequence (xxxx,yyy1) are shown below.

In the first example, an anatomic structure representing the right lung of a patient with a right-lung lesion is identified as the ipsi-lateral lung using Alternate Property Type Code of "Lung_Ipsi" as required by Clinical Trial Protocol 1234.

<i>Content of Table 8.8-1a. Basic Code Sequence Macro</i>		(T-D000A, SRT, "Anatomical Structure")
Equivalent Code Sequence	(0008,0121)	
<i>>Content of Table 8.8-1a. Basic Code Sequence Macro</i>		(Lung_Ipsi, CODESCHEME2, "Ipsi-lateral Lung)
<i>>Purpose of Equivalent Code Sequence</i>	(xxxx,yyyy)	
<i>>>Content of Table 8.8-1a. Basic Code Sequence Macro</i>		(CT1234, CODESCHEME3, "Clinical Trial Protocol 1234")

In the second example, a Clinical Target Volume (CTV) is identified as the volume whose prescription dose is 5400 cGy as required by Clinical Trial Protocol 1234.

<i>Content of Table 8.8-1a. Basic Code Sequence Macro</i>		(S147050, 99SUP147, "Target")
Equivalent Code Sequence	(0008,0121)	
<i>>Content of Table 8.8-1a. Basic Code Sequence Macro</i>		(CTV_5400, CODESCHEME2, "CTV 5400 cGy")
<i>>Purpose of Equivalent Code Sequence</i>	(xxxx,yyyy)	
<i>>>Content of Table 8.8-1a. Basic Code Sequence Macro</i>		(CT1234, CODESCHEME3, "Clinical Trial Protocol 1234")

Correction Wording:

In Part 3, Section 8.8 Standard Attribute Sets for Code Sequence Attributes, add the following attributes and text:

Table 8.8-1. Code Sequence Macro Attributes

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Attribute Name	Tag	Type	Attribute Description
<i>BASIC CODED ENTRY ATTRIBUTES</i>			
<i>Include Table 8.8-1a</i>			
Equivalent Code Sequence	(0008,0121)	3	Codes that are considered equivalent by the creating system. One or more Items are permitted in this Sequence. See Section 8.9.
<i>>Include Table 8.8-1a</i>			
>Purpose of Equivalent Code Sequence	(xxxx,yyy1)	3	Describes the purpose for which the equivalent code is included. Only a single Item shall be permitted in this sequence.
>>Include Table 8.8-1a 'Code Sequence Macro Attributes'			No Baseline CID defined.
<i>ENHANCED ENCODING MODE</i>			
Context Identifier	(0008,010F)	3	See Section 8.6.
Context UID	(0008,0117)	3	See Section 8.6.
Mapping Resource	(0008,0105)	1C	See Section 8.4. Required if Context Identifier (0008,010F) is present.
Mapping Resource UID	(0008,0118)	3	Uniquely identifies the Mapping Resource that defines the Context Group. Note The unique identifier for the DICOM Content Mapping Resource "DCMR" is defined in PS3.6.
Context Group Version	(0008,0106)	1C	See Section 8.5. Required if Context Identifier (0008,010F) is present.
Context Group Extension Flag	(0008,010B)	3	Indicates whether the triplet of Code Value (0008,0100) (or Long Code Value (0008,0119) or URN Code Value (0008,0120))/Coding Scheme Designator (0008,0102)/Code Meaning (0008,0104) is selected from a private extension of the Context Group identified in Context Identifier (0008,010F). See Section 8.7. Enumerated Values: Y N

Attribute Name	Tag	Type	Attribute Description
Context Group Local Version	(0008,0107)	1C	See Section 8.7. Required if the value of Context Group Extension Flag (0008,010B) is "Y".
Context Group Extension Creator UID	(0008,010D)	1C	Identifies the person or organization who created an extension to the Context Group. See Section 8.7. Required if the value of Context Group Extension Flag (0008,010B) is "Y".

8.9 Equivalent Code Sequence

The Equivalent Code Sequence (0008,0121) attribute may optionally be used to convey different codes for the same concept.

Some scenarios in which it is helpful for the creating system to send equivalent codes include:

- when different representations of the same concept are present in a standard coding scheme, such as the SNOMED-CT and SNOMED-RT and CTV3 style identifiers,
- when the same concept is present in different standard coding schemes, but considered by the creating system to be synonymous, such as anatomical concepts from SNOMED and FMA, and
- when the same concept is present in a local as well as a standard coding scheme, but considered by the creating system to be synonymous, such as a local private procedure code and the same concept in LOINC or SNOMED or RADLEX.

The Purpose of Equivalent Code Sequence (xxxx,yyy1) identifies the purpose of the equivalent code in a cross-institutional, cross-application context for trials, research, knowledge-based applications and alike.

In PS 3.6, Section 6, add the following new attributes:

<u>(xxxx,yyy1)</u>	<u>Purpose of Equivalent Code Sequence</u>	<u>PurposeOfEquivalentCodeSequence</u>	<u>SQ</u>	<u>1</u>
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