

DICOM Correction Item

Correction Number CP-371	
Log Summary: Update language and country codes	
Type of Modification Modification	Name of Standard PS 3.16
<p>Rationale for Correction:</p> <p>Since the development of Part 16, there have been several updates to the ISO 639 registration of languages, used in CID 5000, and to the ISO 3166 registration of countries, used in CID 5001.</p> <p>Also, RFC 1766, which was used for CID 5000, has been obsoleted by RFC 3066, which defines a prioritization of language codes somewhat different from the choices made in CID 5000.</p> <p>Moreover, TIDs 1200, 1201, 1202, and 1204 use a subsidiary Concept Modifier content item to identify the country of a language. Commonly used software tools combine the language and country into a single constructed language tag in accordance with RFC 3066. It is desirable to allow this language tag, as specified in an Internet Best Practice, to be used in DICOM SR, rather than the arbitrarily different scheme defined in the current version of Part 16. This approach is harmonized with the HL7 v3 use of language code.</p> <p>Rather than changing the CID 5000 table, it is proposed to replace it with a narrative reference to RFC 3066, ISO 639, and ISO 3166. Similarly, the CID 5001 table is replaced with a narrative reference to ISO 3166.</p>	
Sections of documents affected	
PS 3.3 Section C.2.3	
PS 3.16 Sections 2 and 8, and Annexes A and B	
Correction Wording:	

Add the following note to PS3.3 Section C.2.3, below the Table

Note: The language codes specified in CID 5000, used in Patient's Primary Language Code Sequence (0010,0101), optionally allow the encoding of the country of language in the code value for the language. Encoding of the country of language in a subsidiary Patient's Primary Language Code Modifier Sequence (0010,0102) is allowed for backward compatibility with previous editions of the Standard.

Add references to PS3.16 Section 2

2 Normative references

RFC 3066	<u>Tags for the Identification of Languages, Internet Engineering Task Force</u>
ISO 639	<u>Codes for the representation of names of languages, International Organization for Standardization</u>
ISO 3166	<u>Codes for the representation of names of countries, International Organization for Standardization</u>

Add coding scheme designator to PS3.16 Section 8

Table 8-1 Coding Schemes

Coding Scheme Designator	Coding Scheme UID	Description
...		
<u>RFC3066</u>		<u>RFC 3066, Tags for the Identification of Languages, Internet Engineering Task Force</u>

Add the following note to PS3.16 Annex A, TIDs 1200, 1201, 1202, and 1204

Note: The language codes specified in CID 5000 optionally allow the encoding of the country of language in the code value for the language. Encoding of the country of language in a separate subsidiary Concept Modifier content item is allowed for backward compatibility with previous editions of the Standard.

Change the following note to PS3.16 Annex A, TIDs 1211

2. For example, to specify a concept name and value in both French and English in Canada:

CODE:(~~ev,esd, T-D0005,SNM3~~,"Anatomical structurey")=(T-04000,SNM3,"Breast")
 > *Has Concept Mod* CODE:(121048,DCM,"Language of name and value")=(en-~~CA-g,ISO639_2 RFC3066~~,"English, Canada")
 >> *Has Concept Mod* CODE:(121046,DCM,"Country of language")=(CA,ISO3166_1,"Canada")
 > *Has Concept Mod* CODE: (121050,DCM,"Equivalent meaning of concept name")=(~~ev,esd, T-D0005,SNM3~~,"Structure de l'anatomie")
 >> *Has Concept Mod* CODE: (121047,DCM,"Langue de la valeur")=(fr-~~CAa,ISO639_2 RFC3066~~,"Français, Canada")
 >>> *Has Concept Mod* CODE: (121046,DCM,"Pays de la langue")=(CA,ISO3166_1,"Canada")
 > *Has Concept Mod* CODE: (121051,DCM,"Equivalent meaning of value")=(T-04000,SNM3,"Sein")
 >> *Has Concept Mod* CODE: (121047,DCM,"Langue de la valeur")= (fr-~~CAa,ISO639_2 RFC3066~~,"Français, Canada")
 >>> *Has Concept Mod* CODE: (121046,DCM,"Pays de la langue")=(CA,ISO3166_1,"Canada")

Replace PS3.16 Annex B, CID 5000 with the following

CID 5000 Languages

Type: Extensible

Version: 2003mddd

Context Group ID 5000 comprises the language tag coding scheme of RFC 3066. The Coding Scheme Designator (0008,0102) shall be RFC3066.

- Notes:
1. The RFC 3066 coding scheme is constructed from a primary subtag component encoded using the language codes of ISO 639, plus two codes for extensions for languages not represented in ISO 639. The code optionally includes a second subtag component encoded using the two letter country codes of ISO 3166, or a language code extension registered by the Internet Assigned Names Authority.
 2. RFC 3066 may be obtained at <http://www.ietf.org/rfc/rfc3066.txt>. RFC 3066 obsoletes RFC 1766.
 3. ISO 639 may be obtained at <http://www.loc.gov/standards/iso639-2/langhome.html>.
 4. The two letter country codes of ISO 3166 may be obtained at <http://www.iso.ch/iso/en/prods-services/iso3166ma/02iso-3166-code-lists/index.html>
 5. IANA language tag registrations may be obtained at <http://www.iana.org/assignments/language-tags>
 6. In previous editions of the Standard, this Context Group formerly included the three letter language codes of ISO 639-2/B, using Coding Scheme Designator ISO639_2, and several IANA-registered language code extensions, using Coding Scheme Designator IANARFC1766. RFC 3066 identifies a preference for the ISO 639-1 two letter codes to the ISO 639-2 three letter codes, and the ISO 639-2/T (terminology) subset to the ISO 639-2/B (bibliographic) subset.
 7. In previous editions of the Standard, this Context Group provided only language identifiers, with national or regional variant identified in a separate attribute or Content Item.

Replace PS3.16 Annex B, CID 5001 with the following

CID 5001 Countries

Type: Extensible

Version: 2003mddd

Context Group ID 5001 comprises the two letter country code scheme of ISO 3166. The Coding Scheme Designator (0008,0102) shall be ISO3166_1.

- Notes:
1. The two letter country codes of ISO 3166 may be obtained at <http://www.iso.ch/iso/en/prods-services/iso3166ma/02iso-3166-code-lists/index.html>