

DICOM Correction Item

Correction Number		CP-189
Log Summary: Clarification in standard that data elements of undefined length are allowed for Unknown (UN) Value Representation.		
Type of Modification	Name of Standard	
clarification	PS 3.5- 1999	
Rationale for Correction: There is an inconsistency in the standard regarding VRs of Unknown (UN). Section 6.2.2 indicates the length field of a VR of UN may contain the value of unknown length. However, the note at the end of Section 7.1.1 does not include UN as a VR that can be of undefined length. This CP simply seeks to clarify this.		
Sections of documents affected PS 3.5, Section 7.1.1		
Correction Wording:		

Modify note in section 7.1.1 to be consistent with note in section 6.2.2

7.1.1 DATA ELEMENT FIELDS

A Data Element is made up of fields. Three fields are common to all three Data Element structures; these are the Data Element Tag, Value Length, and Value Field. A fourth field, Value Representation, is only present in the two Explicit VR Data Element structures. The Data Element structures are defined in Sections 7.1.2. and 7.1.3. The definitions of the fields are:

Data Element Tag: An ordered pair of 16-bit unsigned integers representing the Group Number followed by Element Number.

Value Representation: A two-byte character string containing the VR of the Data Element. The VR for a given Data Element Tag shall be as defined by the Data Dictionary as specified in PS 3.6. The two character VR shall be encoded using characters from the DICOM default character set.

Value Length: Either:
 a 16 or 32-bit (dependent on VR and whether VR is explicit or implicit) unsigned integer containing the Explicit Length of the Value Field as the number of bytes (even) that make up the Value. It does not include the length of the Data Element Tag, Value Representation, and Value Length Fields.

a 32-bit Length Field set to Undefined Length (FFFFFFFFH). Undefined Lengths may be used for Data Elements having the Value Representation (VR) Sequence of Items (SQ) **and Unknown (UN)**. For Data Elements with Value Representation OW or OB Undefined Length may be used depending on the

negotiated Transfer Syntax (see Section 10 and Annex A).

Note: The decoder of a Data Set should support both Explicit and Undefined Lengths for VRs of SQ **and** **UN** and, when applicable, for VRs of OW and OB.