DICOM Correction Item

Correction Number	CP-122

Log Summary: Unlimited Text VR	

Type of Modification	Name of Standard
Clarification by addition of items	PS 3.5 - 1993,1996

Rationale for Correction

DICOM does not contain a VR of unlimited length for text values, which may be necessary for future Information Object Definitions, such as those containing long text reports.

An unlimited length VR is defined (type "UT" for Unlimited Text) whose character repertoire is the same as for ST and LT (and hence always has a VM of 1) but whose length is unlimited (though limited in practice by the 32 bit VL field).

Sections of documents affected

See below ...

Correction Wording:

Unlimited Text VR
        Status: Final Text

Add to PS 3.5 section 6.2 - Value representation (VR):

Table 6.2-1
DICOM VALUE REPRESENTATIONS

VR Name	Definition	Character Repertoire	Length of Value
UT Unlimited Text	A character string that may contain one or more paragraphs. It may contain the Graphic Character set and the Control Characters, CR, LF, FF, and ESC. It may be padded with trailing spaces, which may be ignored, but leading spaces are considered to be significant. Data Elements with this VR shall not be multi-valued and therefore character code 5CH (the BACKSLASH "\" in ISO-IR 6) may be used.	Default Character Repertoire and/or as defined by (0008,0005).	2^{32}-2 Note: limited only by the size of the maximum unsigned integer representable in a 32 bit VL field minus one, since FFFFFFFFH is reserved.

Ammend PS 3.5 section 7.1.2 - DATA ELEMENT STRUCTURE WITH EXPLICIT VR):

When using the Explicit VR structures, the Data Element shall be constructed of four consecutive fields: Data Element Tag, VR, Value Length, and Value. Depending on the VR of the Data Element, the Data Element will be structured in one of two ways:

for VRs of OB, OW, SQ and UN the 16 bits following the two character VR Field are reserved for use by later versions of the DICOM Standard. These reserved bytes shall be set to 0000H and shall not be used or decoded (Table 7.1-1). The Value Length Field is a 32-bit unsigned integer. If the Value Field has an Explicit Length, then the Value Length Field shall contain a value equal to the length (in bytes) of the Value Field. Otherwise, the Value Field has an Undefined Length and a Sequence Delimitation Item marks the end of the Value Field.

for VRs of UT the 16 bits following the two character VR Field are reserved for use by later versions of the DICOM Standard. These reserved bytes shall be set to 0000H and shall not be used or decoded. The Value Length Field is a 32-bit unsigned integer. The Value Field is required to have an Explicit Length, that is the Value Length Field shall contain a value equal to the length (in bytes) of the Value Field.

Note: VRs of UT may not have an Undefined Length, ie. a Value Length of FFFFFFFFH.

for all other VRs the Value Length Field is the 16-bit unsigned integer following the two character VR Field (Table 7.1-2). The value of the Value Length Field shall equal the length of the Value Field.