DICOM Correction Proposal

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<td>Date of Last Update</td>
<td>2018-03-23</td>
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<tr>
<td>Person Assigned</td>
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Correction Number CP-1799

Log Summary: Fix list of VRs having a VM of 1

Name of Standard PS3.5

Rationale for Correction:
The list of Value Representations (VR) having a fixed Value Multiplicity (VM) of one in PS3.5 Section 6.4 is not consistent with the normative specification in Section 6.2: UR is listed but LT, ST and UT are not.

Editorial change: the VR "OB" is listed twice in the last sentence of Section 6.4.

Open issue: The terms "multi-valued" and "multiple valued" are used throughout PS3.5, apparently without any semantic difference. Shouldn't always the same term be used for the concept of data elements having multiple values?

Correction Wording:

Change PS3.5 Section 6.4

6.4 Value Multiplicity (VM) and Delimitation

The Value Multiplicity of a Data Element specifies the number of Values that can be encoded in the Value Field of that Data Element. The VM of each Data Element is specified explicitly in PS3.6. If the number of Values that may be encoded in an element is variable, it shall be represented by two numbers separated by a dash; e.g., "1-10" means that there may be 1 to 10 Values in the element.

Note

Elements having a multiplicity of "S", which represented "single", in versions of this standard preceding V3.0, will have a multiplicity of "1" in this version of this standard.

When a Data Element has multiple Values, those Values shall be delimited as follows:

- For character strings, the character 5CH (BACKSLASH "\" in the case of the repertoire ISO IR-6) shall be used as a delimiter between Values.

  Note
  
  BACKSLASH ("\") is used as a delimiter between character string Values that are of fixed length as well as variable length.

- Multiple binary Values of fixed length shall be a series of concatenated Values without any delimiter.

Each string Value in a multiple valued character string may be of even or odd length, but the length of the entire Value Field (including "\" delimiters) shall be of even length. If padding is required to make the Value Field of even length, a single padding character shall be applied to the end of the Value Field (to the last Value), in which case the length of the last Value may exceed the Length of Value by 1.
Note

A padding character may need to be appended to a fixed length character string value in the above case.

Only the last UID Value in a multiple valued Data Element with a VR of UI shall be padded with a single trailing NULL (00H) character when necessary to ensure that the entire Value Field (including "\" delimiters) is of even length.

Data Elements with a VR of LT, OB, OD, OF, OL, OW, OB, SQ, ST, UN, or UR or UT shall always have a Value Multiplicity of one. See Table 6.2-1.