**DICOM Correction Proposal**

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<td>2021/01/19</td>
</tr>
<tr>
<td>Person Assigned</td>
<td>David Clunie <a href="mailto:dclunie@dclunie.com">dclunie@dclunie.com</a></td>
</tr>
<tr>
<td>Submitter Name</td>
<td>Jim Philbin <a href="mailto:jim@philbin.us">jim@philbin.us</a></td>
</tr>
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**Log Summary:** Clarify Character Set handling

**Name of Standard**

PS3.18 2020e

**Rationale for Correction:**

In PS3.18 Character Set error handling is not clear.

Convert "should" to "shall".

Remove redundant statements replicated in multiple locations.

Resolve contradictory statements.

**Correction Wording:**

*Update PS3.18 Table 8.3.3.2 as follows:*

8.3.3.2 **Character Set Query Parameter**

The Character Set Query Parameter has the following syntax:

```
character-set = "charset" "=" 1#(charset [weight])
```

The Character Set Query Parameter value is a comma-separated list of one or more character set identifiers. It is like the Accept-Charset header field, except that it shall not have wildcards. See Section 8.8.

**Note**

Character set identifiers present in the character set Query Parameter typically have a corresponding character set identifier in the Accept-Charset header field, either explicitly or implicitly through wildcards.

*If this parameter has a value that is not a valid or supported character set, the origin server shall return a 400 (Bad Request) response and may include a payload containing an appropriate Status Report. See Section 8.6.3.*

*If this parameter has a value that is not supported, that value shall be ignored.*

*For reference unchanged:*

8.8 **Character Sets**

...

A request without any Character Set Query Parameter or Accept-Charset header field implies that the user agent will accept any character set in the response.
Update PS3.18 Table 8.8.1 as follows:

8.8.1 Acceptable Character Sets

The term Acceptable Character Sets denotes the character sets that are acceptable to the user agent in the response. The Acceptable Character Sets are those specified in:

- the "charset" media type parameter
- the character set Query Parameter
- the Accept-Charset header field
- the default character set for the media type, if any

When Acceptable Character Sets contains a list of one or more Defined Terms they **should** be ordered by the user agent as specified in PS3.3, Section C.12.1.2, and PS3.5, Section 6.1.2.3 “Encoding of Character Repertoires” in PS3.5. This is especially important for ISO 2022 character sets.

Any charset values that are not valid or not supported shall be ignored by the origin server.

Update PS3.18 Table 8.8.4 as follows:

8.8.4 Accept-Charset Header Field

The Accept-Charset header field has the following syntax:

```
Accept-Charset = 1#(charset [weight]) / ("*" [weight])
```

The user agent may provide a list of Acceptable Character Sets in the Accept-Charset header field of the request. Its value is a comma-separated list of one or more character sets and/or the wildcard value ("*").

The values of the Accept-Charset header field values are prioritized by their weight parameter.

If no wildcard ("*") is present, then any character sets not explicitly mentioned in the header field are considered "not acceptable" to the client.

*A request without an Accept-Charset header field implies that the user agent will accept any charset in response.*

If the media type defines a "charset" parameter, it **should** be included with the media type in the Accept header field, rather than in the Accept-Charset header field.

*If this header field has a value that is not a valid or supported character set, the origin server shall return a 400 (Bad Request) response and may include a payload containing an appropriate Status Report. See Section 8.6.3.*

Any Accept-Charset header field values that are not valid or not supported shall be ignored by the origin server.