

## DICOM Correction Proposal

|                     |                                          |
|---------------------|------------------------------------------|
| STATUS              | Assigned                                 |
| Date of Last Update | 2025/01/30                               |
| Person Assigned     | Christof Schadt                          |
| Submitter Name      | Kari Jyrkkälä <kari.jyrkkala@varian.com> |
| Submission Date     | 2024/11/26                               |

|                           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
|---------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Correction Number         | CP-2503                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| Log Summary:              | Add Dose Value to Dose Calibration Conditions                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| Name of Standard          | PS3.3                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| Rationale for Correction: | <p>CP-2153 'Add Calibration Parameters to Treatment Plan' introduced the Dose Calibration Conditions Sequence (300C,0120) containing the parameters required by IEC 60601-2-1 ED4. In treatment planning system the Absorbed Dose to Meterset Ratio (300C,0121) is typically calculated as a ratio from two separately stored values: dose and Meterset. This CP adds Dose Value (3004,0012) into the Dose Calibration Conditions Sequence (300C,0120) to enable the reconstruction of values used in the definition of the Absorbed Dose to Meterset Ratio (300C,0121).</p> |
| Correction Wording:       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |

*Update PS 3 C.8.8.13 RT Fraction Scheme Module*

**Table C.8-49. RT Fraction Scheme Module Attributes**

| Attribute Name            | Tag         | Type | Attribute Description                                                                                                                                                             |
|---------------------------|-------------|------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Fraction Group Sequence   | (300A,0070) | 1    | Sequence of Fraction Groups in current Fraction Scheme.<br>One or more Items shall be included in this Sequence.                                                                  |
| >Fraction Group Number    | (300A,0071) | 1    | Identification number of the Fraction Group. The value of Fraction Group Number (300A,0071) shall be unique within the RT Plan in which it is created.                            |
| ...                       |             |      |                                                                                                                                                                                   |
| >Referenced Beam Sequence | (300C,0004) | 1C   | Sequence of treatment beams in current Fraction Group.<br>One or more Items shall be included in this Sequence.<br>Required if Number of Beams (300A,0080) is greater than zero.  |
| >>Referenced Beam Number  | (300C,0006) | 1    | Uniquely identifies Beam specified by Beam Number (300A,00C0) within Beam Sequence (300A,00B0) in RT Beams Module or within Ion Beam Sequence (300A,03A2) in RT Ion Beams Module. |

| Attribute Name                              | Tag                       | Type            | Attribute Description                                                                                                                                                                                                                                                                                                                                                                                                        |
|---------------------------------------------|---------------------------|-----------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| ...                                         |                           |                 |                                                                                                                                                                                                                                                                                                                                                                                                                              |
| >>Dose Calibration Conditions Verified Flag | (300C,0123)               | 3               | Indicates whether verifiable calibration conditions of the delivery device were used during treatment planning.<br><br>Enumerated Values:<br><b>YES</b><br><b>NO</b>                                                                                                                                                                                                                                                         |
| >>Dose Calibration Conditions Sequence      | (300C,0120)               | 1C              | Dose calibration conditions for the referenced beam.<br><br>Required if Dose Calibration Conditions Verified Flag (300C,0123) is present and equals YES and Radiation Device Configuration and Commissioning Key Sequence (300A,065A) is absent.<br><br>May be present if Radiation Device Configuration and Commissioning Key Sequence (300A,065A) is present.<br><br>Only a single Item shall be present in this Sequence. |
| <b><u>&gt;&gt;&gt;Dose Value</u></b>        | <b><u>(3004,0012)</u></b> | <b><u>3</u></b> | <b><u>Dose value (Gy) used in the calculation of Absorbed Dose to Meterset Ratio (300C,0121).</u></b>                                                                                                                                                                                                                                                                                                                        |
| >>>Absorbed Dose to Meterset Ratio          | (300C,0121)               | 1               | Ratio of absorbed dose in Gy to Meterset as defined by Primary Dosimeter Unit (300A,00B3) in the reference conditions.                                                                                                                                                                                                                                                                                                       |
| >>>Delineated Radiation Field Size          | (300C,0122)               | 1               | Field size in mm in X and Y directions in the IEC BEAM LIMITING DEVICE coordinate system, specified by a numeric pair, X value then Y value.                                                                                                                                                                                                                                                                                 |
| >>>Calibration Reference Point Depth        | (300C,0124)               | 1               | Calibration reference point depth in mm from the phantom surface.                                                                                                                                                                                                                                                                                                                                                            |
| >>>Source to Surface Distance               | (300A,0130)               | 1               | Distance in mm from the radiation source to the phantom surface during calibration.                                                                                                                                                                                                                                                                                                                                          |
| >>>Calibration DateTime                     | (0018,1203)               | 2               | Date and time the calibration was performed.                                                                                                                                                                                                                                                                                                                                                                                 |