

# DICOM Correction Proposal

STATUS	Letter Ballot
Date of Last Update	2024/01/14
Person Assigned	Nick Bevins
Submitter Name	Nick Bevins on behalf of WG28
Submission Date	2023/03/08

Correction Number	CP-2289
Log Summary:	Update to TID 10048 Radiation Output Description
Name of Standard	PS3.16
Rationale for Correction:	The description for PS3.16 TID 10048 includes incorrect references to other TIDs and does not correctly describe the conditions for requiring an update to the radiation dose output when a new RDSR containing the updated information is created. The normative text should be in the content item descriptions, rather than the TID description.
Correction Wording:	

*Modify PS3.16 as follows:*

## TID 10048 Radiation Output

The description of the radiation output at the output measurement point. **If the output measurement point position (TID 10051 Row 5), X-Ray source transformation matrix (TID 10051 Row 5), or X-Ray source rotation angle (TID 10051 Row 8) are updated, this TID must also be updated. The TID may also be updated following changes to other machine characteristics (e.g., tube potential).**

Type: Extensible  
Order: Non-Significant  
Root: No

**Table TID 10048. Radiation Output**

	NL	Rel with Parent	VT	Concept Name	VM	Req Type	Condition	Value Set Constraint
1			CONTAINER	EV (130514, DCM, "Radiation Output")	1	M		
2	>	CONTAINS	DATETIME	DT (111526, DCM, "DateTime Started")	1	M		
3	>	CONTAINS	DATETIME	DT (111527, DCM, "DateTime Ended")	1	M		
4	>	CONTAINS	TEXT	EV (113832, DCM, "Identification of the X-	1	M		

	NL	Rel with Parent	VT	Concept Name	VM	Req Type	Condition	Value Set Constraint
				Ray Source")				
5	>	CONTAINS	NUM	EV (130515, DCM, "Air Kerma at Output Measurement Point")	1	MC	XOR Row 6	UNITS = EV (mGy, UCUM, "mGy")
6	>	CONTAINS	TABLE	EV (130515, DCM, "Air Kerma at Output Measurement Point")	1	MC	XOR Row 5	NCOLUMNS = 2  COLUMN 1 = EV (111527, DCM, "DateTime Ended")  COLUMN 2 = EV (130515, DCM, "Air Kerma at Output Measurement Point")  COLUMN 2 UNITS = EV (mGy, UCUM, "mGy")  COLUMN 1 VR = DT  COLUMN 2 VR = FL

#### Content Item Descriptions

Rows 2, 3	The DateTime of the start and end of the radiation output measurement or calculation. This radiation output measurement window shall not overlap with the radiation output measurement window of any other instance of this template within the same RDSR.
Row 4	Identification the X-Ray source. This designation shall not change for a given source throughout the entire RDSR. For systems with multiple X-Ray sources, each source shall be described with a separate instance of this template.
Row 5	<p>The accumulated air kerma over the period of time specified by Row 2 and 3.</p> <p><b><u>For the period of time where the Air Kerma at Output Measurement Point is provided, the output measurement point position (TID 10051 Row 5), X-Ray source transformation matrix (TID 10050 Row 5), and X-Ray source rotation angle (TID 10050 Row 8) shall be constant.</u></b></p>
Row 6	<p>The table is encoded as a two-column table, consisting of multiple rows describing corresponding values of DateTime and accumulated air kerma over the period of time specified by Row 2 and 3. The number of rows in the table is not constrained.</p> <p><b><u>For the period of time where the Air Kerma at Output Measurement Point is provided, the output measurement point position (TID 10051 Row 5), X-Ray source transformation matrix (TID 10050 Row 5), and X-Ray source rotation angle (TID 10050 Row 8) shall be constant.</u></b></p> <p><b><u>In the first table row, the value in COLUMN 1 shall not be less than the value of Row 2 of this TID. In the last table row, the value of COLUMN 1 shall not exceed the value of Row 3 of this TID.</u></b></p> <p><b><u>For the first table row, the air kerma value in COLUMN 2 shall indicate the accumulated air kerma between the DateTime in Row 2 of this TID and the DateTime of COLUMN 1 of the first table row. Each subsequent table row describes the accumulated air kerma between the DateTime of the</u></b></p>

previous table row and the current table row.

~~The DateTime value in the first row of the table shall not be before the DateTime value in Row 2, and the corresponding air kerma value shall indicate the accumulated air kerma between the DateTime in Row 2 and the specified DateTime of the first row. Each subsequent row describes the accumulated air kerma between the DateTime in the previous row and the current row. The final DateTime value shall not be after the end DateTime value specified in Row 3.~~