DICOM Change Proposal

STATUS	Voting Packet
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Change Number CP-2599
Log Summary: Improve Description of RDSR Calibration Intention
Name of Standard PS3.16
Rationale for Change: CP2461 “Add rows for intended use of dose calibration in RDSR” added two content items within the calibration container of the RDSRs in TID 10002 and TID 10041. Refer to TID 10002, Rows 9a and 9b, and TID 10041, Rows 9a and 9b. However, the descriptions of these rows do not specify the expected interpretation when such rows are absent. This CP proposes improvements to the descriptions of these rows: 1- Add the expected interpretation if a row is absent 2- Replace “… to determine the applicability…” by “… to restrict the applicability…” 3- Create one single description for both rows 9a and 9b. Say that more than one inclusion of the CONTAINER (122505, DCM, "Calibration") shall NOT apply to the same Dose Index and Acquisition Protocol, since that would result in two different calibration factors to be applied making it unclear what the correct factor is. This CP also adds row description of EV (113705, DCM, "Scope of Accumulation") in TID10001 Row 6 and TID 10040 Row 6 to clarify that when the value is (113852, DCM, "Irradiation Event") the RDSR only contains one Irradiation Event. This CP also adds row description of EV (111635, DCM, “X-Ray Grid”) in TID 10003B Row 26 and TID 10054 Row 11 to clarify that more than one value are intended to describe several characteristics of the same grid.
Change Wording: See below.

Update PS3.16, Annex A. Structured Reporting Templates (Normative) as indicated

5

Table TID 10002. Accumulated X-Ray Dose

	NL	Rel with Parent	VT	Concept Name	VM	Req Type	Condition	Value Set Constraint
1			CONTAINER	EV (113702, DCM, "Accumulated X-Ray Dose Data")	1	M		
2	>	HAS CONCEPT MOD	CODE	EV (113764, DCM, "Acquisition Plane")	1	M		$Plane
3	>	CONTAINS	CONTAINER	EV (122505, DCM, "Calibration")	1-n	MC	IFF Calibration Data is available	
4	>>	HAS CONCEPT MOD	CODE	EV (113794, DCM, "Dose Measurement Device")	1	M		DCID 10010 “Dose Measurement Devices”
5	>>	CONTAINS	DATETIME	EV (113723, DCM, "Calibration DateTime")	1	M		
6	>>	CONTAINS	NUM	EV (122322, DCM, "Calibration Factor")	1	M		UNITS = EV (1, UCUM, "no units")
7	>>	CONTAINS	NUM	EV (113763, DCM, "Calibration Uncertainty")	1	M		UNITS = EV (%, UCUM, "Percent")
8	>>	CONTAINS	TEXT	EV (113724, DCM, "Calibration Responsible Party")	1	M		
9	>>	CONTAINS	TEXT	EV (113720, DCM, "Calibration Protocol")	1	U		
9a	>>	CONTAINS	CODE	EV (131330, DCM, "Calibration Intended Dose Index")	1	U		DCID 10012 “Dose Index for Dose Calibration”
9b	>>	CONTAINS	TEXT	EV (131331, DCM, "Calibration Intended Acquisition Protocol")	1	U		
10	>	…	…	…	…	…	…	…

Content Item Descriptions

…	…
Row**s** 9a**, 9b**	Users of the RDSR can use ~~**this**~~ **these** value**s** to ~~**determine**~~ **restrict** the applicability of the calibration for the RDSR. **If row 9a or row 9b is absent, it means that this calibration applies respectively to all dose indices or to all acquisition protocols.** **The Calibration Responsible Party should take care when providing inputs to more than one inclusion of the CONTAINER (122505, DCM, "Calibration") to avoid ambiguity in the values of these rows that would apply to the same Dose Index and Acquisition Protocol with different Calibration Factors.**
~~**Row 9b**~~	~~**Users of the RDSR can use this value to determine the applicability of the calibration for the RDSR.**~~

	~~May be related to TID 10003 Row 8 EV (125203, DCM, "Acquisition Protocol").~~
…	…

10 **Table TID 10041. Accumulated Dose Data**

	NL	Rel with Parent	VT	Concept Name	VM	Req Type	Condition	Value Set Constraint
1			CONTAINER	EV (130500, DCM, "Accumulated Dose Data")	1	M		
2	>	CONTAINS	TEXT	EV (113832, DCM, "Identification of the X-Ray Source")	1	M		
3	>	CONTAINS	CONTAINER	EV (122505, DCM, "Calibration")	1-n	MC	IFF Calibration Data is available	
4	>>	HAS CONCEPT MOD	CODE	EV (113794, DCM, "Dose Measurement Device")	1	M		DCID 10010 “Dose Measurement Devices” DCID 7026 “Radiotherapeutic Dose Measurement Device”
5	>>	CONTAINS	DATETIME	EV (113723, DCM, "Calibration DateTime")	1	M		
6	>>	CONTAINS	NUM	EV (122322, DCM, "Calibration Factor")	1	M		UNITS = EV (1, UCUM, "no units")
7	>>	CONTAINS	NUM	EV (113763, DCM, "Calibration Uncertainty")	1	M		UNITS = EV (%, UCUM, "Percent")
8	>>	CONTAINS	TEXT	EV (113724, DCM, "Calibration Responsible Party")	1	M		
9	>>	CONTAINS	TEXT	EV (113720, DCM, "Calibration Protocol")	1	U		
9a	>>	CONTAINS	CODE	EV (131330, DCM, "Calibration Intended Dose Index")	1	U		DCID 10012 “Dose Index for Dose Calibration”
9b	>>	CONTAINS	TEXT	EV (131331, DCM, "Calibration Intended Acquisition Protocol")	1	U		
10	>	…	…	…	…	…	…	…

Content Item Descriptions

…	…
Row**s** 9a**, 9b**	Users of the RDSR can use ~~**this**~~ **these** value**s** to ~~**determine**~~ **restrict** the applicability of the calibration for the RDSR. **If row 9a or row 9b is absent, it means that this calibration applies respectively to all dose indices or to all acquisition protocols.** **The Calibration Responsible Party should take care when providing inputs to more than one inclusion of the CONTAINER (122505, DCM, "Calibration") to avoid ambiguity in the values of these rows that would apply to the same Dose Index and Acquisition Protocol with different Calibration Factors.**
~~**Row 9b**~~	~~**Users of the RDSR can use this value to determine the applicability of the calibration for the RDSR.**~~ ~~**May be related to TID 10003 Row 8 EV (125203, DCM, "Acquisition Protocol").**~~
…	…

15

Table TID 10001. Projection X-Ray Radiation Dose

	NL	Rel with Parent	VT	Concept Name	VM	Req Type	Condition	Value Set Constraint
1			CONTAINER	EV (113701, DCM, "X-Ray Radiation Dose Report")	1	M		Root node
…								
6	>	HAS OBS CONTEXT	CODE	EV (113705, DCM, "Scope of Accumulation")	1	M		DCID 10000 “Scope of Accumulation”
…								

20 **Content Item Descriptions**

…	…
Row 5	The observer context may include both a Person Observer identification, as well as the identity of the equipment providing the values for the irradiation event (Device Observer identification), if not inherited.
Row 6	**A value of (113852, DCM, "Irradiation Event") indicates that only one Irradiation Event is included in the RDSR Instance.**
…	…

Table TID 10040. Enhanced X-Ray Radiation Dose

25

	NL	Rel with Parent	VT	Concept Name	VM	Req Type	Condition	Value Set Constraint
1			CONTAINER	EV (113701, DCM, "X-Ray Radiation Dose Report")	1	M		Root node
…								
6	>	HAS OBS CONTEXT	CODE	EV (113705, DCM, "Scope of Accumulation")	1	M		DCID 10000 “Scope of Accumulation”
…								

Content Item Descriptions

…	…
Row 3	This row describes the general type of radiation-producing procedure from which the content of the RDSR is generated. More specific procedure codes, such as those used for ordering or scheduling, which may affect subsequent processing, may be recorded in the top level Data Set in Procedure Code Sequence (0008,1032) of the General Study Module.
Row 6	**A value of (113852, DCM, "Irradiation Event") indicates that only one Irradiation Event is included in the RDSR Instance.**
…	…

Table TID 10003B. Irradiation Event X-Ray Source Data

	NL	Rel with Parent	VT	Concept Name	VM	Req Type	Condition	Value Set Constraint
…								
26	>		CODE	EV (111635, DCM, "X-Ray Grid")	1-n	U		DCID 10017 “X-Ray Grid”
…								

Content Item Descriptions

…	…
Row 23	Collimated area at the receptor plane.
Row 26	**More than one value are intended to describe several characteristics of the same grid.**
…	

Table TID 10054. Procedure Characteristics

	NL	Rel with Parent	VT	Concept Name	VM	Req Type	Condition	Value Set Constraint
…								
11	>	CONTAINS	CODE	EV (111635, DCM, "X-Ray Grid")	1-n	U		DCID 10017 “X-Ray Grid”
…								

Content Item Descriptions

…	…
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 11	**More than one value are intended to describe several characteristics of the same grid**
…	