日本画像医療システム工業会
Japan Medical Imaging and Radiological Systems Industries Association
医用画像システム部会
DICOM委員会　Working Group -1

CT & X-ray Radiation Dose SR IOD Template解説

Rev. 1　April 9th 2013

本資料は、2011年版DICOM規格書で定義されているCT Radiation Dose SR IOD Templates及びX-ray Radiation Dose SR IOD Templatesの補助資料として整理したものです。なお、本資料は2011年版DICOM規格書以降に承認された変更も一部反映しています。

本資料の記載内容は、CT X-ray Radiation Dose SR IOD Templates 及び X-ray Radiation Dose SR IOD Templatesを理解できるようにすることを目的に、DICOM規格書の各章や節に分散されて記述されている情報を整理したものです。情報が章や節に分散しており、更に多くの変更が発行されているため、記載内容に漏れ、間違い、誤記や変更の適用漏れなどが含まれている可能性がありますのでご注意ください。

本資料のご利用に際には、上記をご理解して頂いた上でご使用下さるようにお願いします。

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Row	NL				Rel with Parent	VT	Concept Name			VM	Re	Condition	Value Set Constraint		
							Coding Scheme Designator (0008,0102)	Code Vaue (0008,0100)	Code Meaning (0008,0104)				Coding Scheme Designator (0008,0102)	Code Vaue (0008,0100)	Code Meaning (0008,0104)
TID 10011 - 1						CONTAINER	EV (113701, DCM, “X-Ray Radiation Dose Report”)			1	M				
TID 10011 - 2	>				HAS CONCEPT MOD	CODE	EV (121058, DCM, ”Procedure reported”)			1	M		EV (P5-08000,SRT, “Computed Tomography XRay”)		
TID 10011 - 3	>>				HAS CONCEPT MOD	CODE	EV (G-C0E8, SRT, “Has Intent”)			1	M		DCID (3629) ProcedureIntent		
													SRT	R-408C3	Diagnostic Intent
													SRT	R-41531	Therapeutic Intent
													SRT	R-002E9	Combined Diagnostic and Therapeutic Procedure
													SRT	R-408F2	Staging intent
													SRT	R-40641	Guidance Intent
													SRT	R-40644	Forensic Intent
													SRT	R-42453	Screening Intent
													SRT	R-40644	Palliative Intent
													SRT	R-41564	Adjunct intent
													SRT	R-41561	Adjuvant intent
													SRT	R-41560	Curative intent
													SRT	R-41562	Neo-adjuvant intent
													SRT	R-41563	Supportive intent
													SRT	P0-02179	Preventive intent
													SRT	P0-02180	Prophylactic intent
TID 10011 - 4	>	DTID(1002)				INCLUDE	DTID(1002) Observer Context			1-n	M				
TID 1002 - 1	>				HAS OBS CONTEXT	CODE	EV (121005,DCM, “Observer Type”)			1	MC	IF Observer type is device	DCID (270) Observer Type		
													DCM	121006	Persoon
													DCM	121007	Device
TID 1002 - 2	>		DTID(1003)		HAS OBS CONTEXT	INCLUDE	DTID (1003) Person observer identifying attributes			1	MC	IF Row 1 value = (121006,DCM, “Person”) or Row 1 is absent			
TID 1003 - 1	>					PNAME	EV (121008,DCM, “Person Observer Name”)			1	M				
TID 1003 - 2	>					TEXT	EV (121009,DCM, “Person Observer’s Organization Name”)			1	U		Defaults to Institution Name (0008,0080) of the General Equipment Module		
TID 1003 - 3	>					CODE	EV (121010,DCM, “Person Observer’s Role in the Organization”)			1	U		BCID(7452) Organizational Roles		
													DCM	121081	Physician
													DCM	121082	Nurse
													DCM	121083	Technologist
													DCM	121084	Radiographer
													DCM	121085	Intern
													DCM	121086	Resident
													DCM	121087	Registrar
													DCM	121088	Fellow
													DCM	121089	Attending [Consultant]
													DCM	121090	Scrub nurse
													DCM	121091	Surgeon
													DCM	121092	Sonologist
													DCM	121093	Sonographer
													DCM	121105	Radiation Physicist
TID 1003 - 4	>					CODE	EV (121011,DCM, “Person Observer’s Role in this Procedure”)			1	U		BCID(7453) Performing Roles		
													DCM	121094	Performing
													DCM	121095	Referring
													DCM	121096	Requesting
													DCM	121097	Recording
													DCM	121098	Verifying
													DCM	121099	Assisting
													DCM	121100	Circulating
													DCM	121101	Standby
													DCM	113850	Irradiation Authorizing
													DCM	113851	Irradiation Administering
TID 1002 - 3	>		DTID(1004)		HAS OBS CONTEXT	INCLUDE	DTID (1004) Device observer identifying attributes			1	MC	IF Row 1 value = (121007,DCM, “Device”)			
TID 1004 - 1	>					UIDREF	EV (121012,DCM, “Device Observer UID”)			1	M				
TID 1004 - 2	>					TEXT	EV (121013,DCM, “Device Observer Name”)			1	U		Defaults to value of Station Name (0008,1010) in General Equipment Module		
TID 1004 - 3	>					TEXT	EV (121014,DCM, “Device Observer Manufacturer”)			1	U		Defaults to value of Manufacturer (0008,0070) in General Equipment Module		
TID 1004 - 4	>					TEXT	EV (121015,DCM, “Device Observer Model Name”)			1	U		Defaults to value of Manufacturer’s Model Name (0008,1090) in General Equipment		
TID 1004 - 5	>					TEXT	EV (121016,DCM, “Device Observer Serial Number”)			1	U		Defaults to value of Device Serial Number (0018,1000) in General Equipment Module		
TID 1004 - 6	>					TEXT	EV (121017,DCM, “Device Observer Physical Location during observation”)			1	U				
TID 1004 - 7	>					TEXT	EV (113876, DCM, “DeviceRole in Procedure”)			1-n	U		BCID (7445) Device Participating Roles		
													DCM	113859	Irradiating Device
													DCM	121097	Recording
													DCM	113942	X-Ray Reading Device
TID 10011 - 5	>				HAS OBS CONTEXT	DATETIME	EV (113809, DCM, “Start of X-Ray Irradiation”)			1	M				
TID 10011 - 6	>				HAS OBS CONTEXT	DATETIME	EV (113810, DCM, “End of X-Ray Irradiation”)			1	M				
TID 10011 - 7	>				HAS OBS CONTEXT	CODE	EV (113705, DCM, “Scope of Accumulation”)			1	M		DCID (10000) Scope of Accumulation		
													DCM	113014	Study
													DCM	113015	Series
													DCM	113016	Performed Procedure
													DCM	113852	Irradiation Event
TID 10011 - 8	>>				HAS PROPERTIES	UIDREF	DCID (10001) UID Types			1	M				
							DCM	110180	Study Instance UID						
							DCM	112002	Series Instance UID						
							DCM	121126	Performed Procedure Step SOP Instance UID						
							DCM	113853	Irradiation Event UID						
TID 10011 - 9	>				CONTAINS	INCLUDE	DTID (10012) CT Accumulated Dose Data			1	M				
TID 10012 - 1	>					CONTAINER	EV (113811, DCM, ”CT Accumulated Dose Data”)			1	M				
TID 10012 - 2	>>				CONTAINS	NUM	EV (113812, DCM, “Total Number of Irradiation Events”)			1	M		Units = EV ({events} UCUM, “events”)		
TID 10012 - 3	>>				CONTAINS	NUM	EV (113813, DCM, “CT Dose Length Product Total”)			1	M		Units = EV (mGy.cm, UCUM, “mGy.cm”)		
TID 10012 - 4	>>				CONTAINS	NUM	EV (113814, DCM, “CT Effective Dose Total”)			1	U		Units = EV (mSv, UCUM, “mSv”)		
TID 10012 - 5	>>>				HAS PROPERTIES	TEXT	EV (121406, DCM, “Reference Authority”)			1	MC	XOR row 6			

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Row	NL				Rel with Parent	VT	Concept Name			VM	Re	Condition	Value Set Constraint		
							Coding Scheme Designator (0008,0102)	Code Vaue (0008,0100)	Code Meaning (0008,0104)				Coding Scheme Designator (0008,0102)	Code Vaue (0008,0100)	Code Meaning (0008,0104)
TID 10012 - 6	>>>	DTID(10012)			HAS PROPERTIES	CODE	EV (121406 ,DCM, “Reference Authority”)			1	MC	XOR row 5	DCID (10015) CT Dose Reference Authority		
													DCM	113808	ICRP Pub 60
													DCM	113841	ICRP Pub 103
TID 10012 - 7	>>>				HAS CONCEPT MOD	CODE	EV (G-C036, SRT,“Measurement Method”)			1	M		DCID (10011) Effective Dose Evaluation		
													DCM	113800	DLP to E conversion via MC computation
													DCM	113801	CTDIfreeair to E conversion via MC
													DCM	113802	DLP to E conversion via measurement
													DCM	113803	CTDIfreeair to E conversion via measurement
TID 10012 - 8	>>>				HAS PROPERTIES	TEXT	EV (113815, DCM, “Patient Model”)			1	MC	IF the value of row 7 equals (113800, DCM, “DLP to E conversion via MC computation”) or equals (113801, DCM, “CTDIfreeair to E conversion via MC computation”)			
TID 10012 - 9	>>>				HAS PROPERTIES	CONTAINER	EV (113816, DCM, “Condition Effective Dose measured”)			1	MC	IF the value of row 7 equals (113802, DCM, “DLP to E conversion via measurement”) or equals (113803, DCM, “CTDIfreeair to E conversion via measurement”)			
TID 10012 - 10	>>>				CONTAINS	TEXT	EV (113817 ,DCM, “Effective Dose Phantom			1	M				
TID 10012 - 11	>>>				CONTAINS	TEXT	EV (113818, DCM, “Dosimeter Type”)			1	M				
TID 10012 - 12	>>				CONTAINS	TEXT	EV (121106, DCM, "Comment”)			1	U				
TID 10012 - 13	>>		DTID(1021)		CONTAINS	INCLUDE	DTID (1021) Device Participant			1	MC	Required if the irradiating device is not the recording device and the dose was accumulated on a single device.	$DeviceProcedureRole = EV (113859, DCM, “Irradiating Device”)		
TID 1021 - 1	>>					CODE	EV (113876, DCM, “Device Role in Procedure”)			1	M		$DeviceProcedureRole		
TID 1021 - 2	>>>				HAS PROPERTIES	TEXT	EV (113877, DCM, “Device Name”)			1	U				
TID 1021 - 3	>>>				HAS PROPERTIES	TEXT	EV (113878, DCM, “Device Manufacturer”)			1	M				
TID 1021 - 4	>>>				HAS PROPERTIES	TEXT	EV (113879, DCM, “Device Model Name”)			1	M				
TID 1021 - 5	>>>				HAS PROPERTIES	TEXT	EV (113880, DCM, “Device Serial Number”)			1	M				
TID 1021 - 6	>>>				HAS PROPERTIES	UIDREF	EV (121012, DCM, “Device Observer UID”)			1	M				
TID 10011 - 10	>				CONTAINS	INCLUDE	DTID (10013) CT Irradiation Event Data			1-n	M				
TID 10013 - 1	>					CONTAINER	EV (113819, DCM, ”CT Acquisition”)			1	M				
TID 10013 - 2	>>				CONTAINS	TEST	EV (125203, DCM, “Acquisition Protocol”)			1	U				
TID 10013 - 3	>>				CONTAINS	CODE	EV (123014 , DCM, ”Target Region”)			1	M		DCID (4030) CT and MR Anatomy Imaged		
													SRT	T-D4000	Abdomen
													:	:	:
													SRT	T-11167	Zygomatic arch
													SRT	T-42500	Abdominal aorta
													:	:	:
													SRT	T-83000	Uterus
TID 10013 - 4	>>				CONTAINS	CODE	EV (113820, DCM, “CT Acquisition Type”)			1	M		DCID (10013) CT Acquisition Types		
													DCM	113804	Sequenced Acquisition
													SRT	P5-08001	Spiral Acquisition
													DCM	113805	Constant Angle
													DCM	113806	Stationary Acquisition
													DCM	113807	Free Acquisition
TID 10013 - 4b	>>>				CONTAINS	CODE	EV (113961, DCM, “Reconstruction Algorithm”)			1-n	U		DCID (nnn1) CT Reconstruction Algorithm		
													DCM	113962	Filtered Back Projection
													DCM	113963	Iterative
TID 10013 - 5	>>				CONTAINS	CODE	EV (G-C32C, SRT, “Procedure Context”)			1	U		DCID (10014) Contrast Imaging Technique		
													SRT	P5-00100	Diagnostic radiography with contrast media
													SRT	P5-	CT without contrast
TID 10013 - 6	>>				CONTAINS	UIDREF	EV (113769, DCM, “Irradiation Event UID”)			1	M				
TID 10013 - 6b	>>				CONTAINS	TEXT	EV(113605, DCM, “Irradiation Event Label”)			1	U				
TID 10013 - 6c	>>>				HAS CONCEPT MOD	CODE	EV(113606, DCM, “Label Type”)			1	MC	IF the value of Row 6b is the value of an Attribute in the images.	DCID (10022) Label Type		
													DCM	113607	Series Number
													DCM	113608	Acquisition Number
													DCM	113609	Instance Number
TID 10013 - 7	>>				CONTAINS	CONTAINER	EV (113822, DCM, “CT Acquisition			1	M				
TID 10013 - 8	>>>				CONTAINS	NUM	EV (113824, DCM, “Exposure Time”)			1	M		Units = EV (s, UCUM, “s”)		
TID 10013 - 9	>>>		DTID(10014)		CONTAINS	INCLUDE	DTID (10014) Scanning Length			1	M				
TID 10014 - 1	>>>					NUM	EV (113825, DCM, “Scanning Length”)			1	M		Units = EV (mm, UCUM, “mm”)		
TID 10014 - 2	>>>					NUM	EV (113893, DCM, “Length of			1	U		Units = EV (mm, UCUM, “mm”)		
TID 10014 - 3	>>>					NUM	EV (113899, DCM, “Exposed Range”)			1	UC	IFF TID 10013 row 4 CT Acquisition Type equals (P5-08001, SRT, “Spiral Acquisition”)	Units = EV (mm, UCUM, “mm”)		
TID 10014 - 4	>>>					NUM	EV (113895, DCM, “Top Z Location of Reconstructable Volume”)			1	U		Units = EV (mm, UCUM, “mm”)		
TID 10014 - 5	>>>					NUM	EV (113896, DCM, “Bottom Z Location of Reconstructable Volume”)			1	U		Units = EV (mm, UCUM, “mm”)		
TID 10014 - 6	>>>					NUM	EV (113897, DCM, “Top Z Location of Scanning Length”)			1	U		Units = EV (mm, UCUM, “mm”)		
TID 10014 - 7	>>>					NUM	EV (113898, DCM, “Bottom Z Location of Scanning Length”)			1	U		Units = EV (mm, UCUM, “mm”)		
TID 10014 - 8	>>>					UIDREF	EV (112227, DCM, “Frame of Reference UID”)			1	MC	IF any of Rows 4 through 7 are present	If present, shall be the same UID as in the images reconstructed from this irradiation event.		
TID 10013 - 10	>>>				CONTAINS	NUM	EV (113826, DCM, “Nominal Single Collimation Width”)			1	M		Units = EV (mm, UCUM, “mm”)		

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Row	NL	Rel with Parent	VT	Concept Name			VM	Re	Condition	Value Set Constraint		
				Coding Scheme Designator (0008,0102)	Code Vaue (0008,0100)	Code Meaning (0008,0104)				Coding Scheme Designator (0008,0102)	Code Vaue (0008,0100)	Code Meaning (0008,0104)
TID 10013 - 11	>>>	CONTAINS	NUM	EV (113827, DCM, “Nominal Total Collimation Width”)			1	M		Units = EV (mm, UCUM, “mm”)		
TID 10013 - 12	>>>	CONTAINS	NUM	EV (113828, DCM, “Pitch Factor”)			1	MC	IF row 4 equals (P5-08001, SRT, “Spiral Acquisition”) or equals (113804, DCM, “Sequenced Acquisition”)	Units = EV ({ratio}, UCUM, “ratio”)		
TID 10013 - 13	>>>	CONTAINS	NUM	EV (113823, DCM, “Number of X-Ray			1	M		Units = EV ({X-Ray sources}, UCUM, “X-Ray		
TID 10013 - 14	>>>	CONTAINS	CONTAINER	EV (113831, DCM, “CT X-Ray Source Parameters”)			1-n	M				
TID 10013 - 15	>>>>	CONTAINS	TEXT	EV (113832, DCM, “Identification of the Xray Source”)			1	M				
TID 10013 - 16	>>>	CONTAINS	NUM	EV (113733, DCM, “KVP”)			1	M		Units = EV (kV, UCUM, “kV”)		
TID 10013 - 17	>>>>	CONTAINS	NUM	EV (113833, DCM, “Maximum X-Ray Tube Current”)			1	M		Units = EV (mA, UCUM, “mA”)		
TID 10013 - 18	>>>	CONTAINS	NUM	EV (113734, DCM, “X-ray Tube Current”)			1	M		Units = EV (mA, UCUM, “mA”)		
TID 10013 - 19	>>>>	CONTAINS	NUM	EV (113834, DCM, “Exposure Time per Rotation”)			1	MC	IF row 4 does not equal (113805, DCM, “Constant Angle Acquisition”)	Units = EV (s, UCUM, “s”)		
TID 10013 - 20	>>>>	CONTAINS	NUM	EV (113821, DCM, “X-ray Filter Aluminum Equivalent”)			1	U		Units = EV (mm, UCUM, “mm”)		
TID 10013 - 21	>>	CONTAINS	CONTAINER	EV (113829, DCM, “CT Dose”)			1	MC	IF row 4 does not equal (113805, DCM, “Constant Angle Acquisition”)			
TID 10013 - 22	>>>	CONTAINS	NUM	EV (113830, DCM, “Mean CTDIvol”)			1	M		Units = EV (mGy, UCUM, “mGy”)		
TID 10013 - 23	>>>	CONTAINS	CODE	EV (113835, DCM, “CTDIw Phantom Type”)			1	M		DCID (4052) Phantom Devices		
										DCM	113681	Phantom
										DCM	113682	ACR Accreditation Phantom - CT
										DCM	113683	ACR Accreditation Phantom - MR
										DCM	113684	ACR Accreditation Phantom -
										DCM	113685	ACR Accreditation Phantom – Stereotactic
										DCM	113686	ACR Accreditation Phantom - ECT
										DCM	113687	ACR Accreditation Phantom - PET
										DCM	113688	ACR Accreditation Phantom – ECT/PET
										DCM	113689	ACR Accreditation Phantom – PET
										DCM	113690	IEC Head Dosimetry Phantom
										DCM	113691	IEC Body Dosimetry Phantom
										DCM	113692	NEMA XR21-2000 Phantom
TID 10013 - 24	>>>	CONTAINS	NUM	EV (113836, DCM, “CTDIfreeair Calculation			1	U		Units = EV (mGy/mAs, UCUM, “mGy/mAs”)		
TID 10013 - 25	>>>	CONTAINS	NUM	EV (113837, DCM, “Mean CTDIfreeair”)			1	U		Units = EV (mGy, UCUM, “mGy”)		
TID 10013 - 26	>>>	CONTAINS	NUM	EV (113838, DCM, “DLP”)			1	M		Units = EV (mGy.cm, UCUM, “mGy.cm”)		
TID 10013 - 27	>>>	CONTAINS	NUM	EV (113839, DCM, “Effective Dose”)			1	U		Units = EV (mSv, UCUM, “mSv”)		
TID 10013 - 28	>>>>	HAS CONCEPT MOD	CODE	EV (G-C036, SRT, “Measurement Method“)			1	MC	IF row 27 is present	DCID (10011) “Effective Dose Evaluation		
										DCM	113800	DLP to E conversion via MC computation
										DCM	113801	CTDIfreeair to E conversion via MC
										DCM	113802	DLP to E conversion via measurement
										DCM	113803	CTDIfreeair to E conversion via measurement
TID 10013 - 29	>>>>>	HAS PROPERTIES	NUM	EV (113840, DCM, “Effective Dose Conversion Factor”)			1	MC	IF row 28 is present and equals (113800, DCM, “DLP to E conversion via MC computation”) or equals (113802, DCM, “DLP to E conversion via measurement”)	Units = EV (mSv/mGy.cm, UCUM, “mSv/mGy.cm”)		
TID 10013 - 30	>>>	CONTAINS	INCLUDE	DTID (10015) CT Dose Check Details			1	MC				
TID 10015 - 1	>>>		CONTAINER	EV (113900, DCM, “Dose Check Alert Details”)			1	MC	IF the scanning device has implemented dose alerts			
TID 10015 - 2	>>>>	CONTAINS	CODE	EV (113901, DCM, “DLP Alert Value Configured”)			1	M		DCID (230) Yes-No		
										SRT	R-0038D	Yes
										SRT	R-00339	No
										SRT	R-0038A	R-0038A
TID 10015 - 3	>>>>	CONTAINS	CODE	EV (113902, DCM, “CTDIvol Alert Value Configured”)			1	M		DCID (230) Yes-No		
										SRT	R-0038D	Yes
										SRT	R-00339	No
										SRT	R-0038A	R-0038A
TID 10015 - 4	>>>>	CONTAINS	NUM	EV (113903, DCM, “DLP Alert Value”)			1	MC	IFF value of Row 2 is (R-0038D,SRT, “Yes”)	Units = EV (mGy.cm, UCUM, “mGy.cm”)		
TID 10015 - 5	>>>>	CONTAINS	NUM	EV (113904, DCM, “CTDIvol Alert Value”)			1	MC	IFF value of Row 3 is (R-0038D,SRT, “Yes”)	Units = EV (mGy, UCUM, “mGy”)		
TID 10015 - 6	>>>>	CONTAINS	NUM	EV(113905, DCM, “Accumulated DLP Forward Estimate”)			1	MC	IF Accumulated DLP Forward Estimate (Row 6) exceeds DLP Alert Value (Row 4)	Units = EV (mGy.cm, UCUM, “mGy.cm”)		

DTID(10013)

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Row	NL	Rel with Parent	VT	Concept Name			VM	Re	Condition	Value Set Constraint		
				Coding Scheme Designator (0008,0102)	Code Vaue (0008,0100)	Code Meaning (0008,0104)				Coding Scheme Designator (0008,0102)	Code Vaue (0008,0100)	Code Meaning (0008,0104)
TID 10015 - 7	>>>>	CONTAINS	NUM	EV (113906, DCM, “Accumulated CTDIvol Forward Estimate”)			1	MC	IF Accumulated CTDIvol Forward Estimate (Row 7) exceeds CTDIvol Alert Value (Row 5)	Units = EV (mGy, UCUM, “mGy”)		
TID 10015 - 8	>>>>	CONTAINS	TEXT	EV (113907, DCM, “Reason for Proceeding”)			1	UC	IFF Accumulated DLP Forward Estimate (Row 6) exceeds DLP Alert Value (Row 4) or Accumulated CTDIvol Forward Estimate (Row 7) exceeds CTDIvol Alert Value (Row 5)			
TID 10015 - 9	>>>>	CONTAINS	INCLUDE	DTID (1020) Person Participant			1	MC	IF Accumulated DLP Forward Estimate (Row 6) exceeds DLP Alert Value (Row 4) or Accumulated CTDIvol Forward Estimate (Row 7) exceeds CTDIvol Alert Value (Row 5)	$PersonProcedureRole = EV (113850, DCM, “Irradiation Authorizing”)		
TID 1020 - 1	>>>		PNAME	EV (113870,DCM, “Person Name”)			1	M				
TID 1020 - 2	>>>	HAS PROPERTIES	CODE	EV (113875,DCM, “Person Role in			1	M		$PersonProcedureRole		
TID 1020 - 3	>>>	HAS PROPERTIES	TEXT	EV (113871,DCM, ”Person ID”)			1	U				
TID 1020 - 4	>>>	HAS PROPERTIES	TEXT	EV (113872,DCM, ”Person ID Issuer”)			1	U				
TID 1020 - 5	>>>	HAS PROPERTIES	TEXT	EV (113873,DCM, “Organization Name”)			1	U				
TID 1020 - 6	>>>>>	HAS PROPERTIES	CODE	EV (113874,DCM, “Person Role in Organization”)			1	U		BCID (7452) Organizational Roles		
										DCM	121081	Physician
										DCM	121082	Nurse
										DCM	121083	Technologist
										DCM	121084	Radiographer
										DCM	121085	Intern
										DCM	121086	Resident
										DCM	121087	Registrar
										DCM	121088	Fellow
										DCM	121089	Attending [Consultant]
										DCM	121090	Scrub nurse
										DCM	121091	Surgeon
										DCM	121092	Sonologist
										DCM	121093	Sonographer
										DCM	121105	Radiation Physicist
TID 10015 - 10	>>>		CONTAINER	EV (113908, DCM, “Dose Check Notification Details”)			1	MC	IF the scanning device has implemented dose notifications			
TID 10015 - 11	>>>>	CONTAINS	CODE	EV (113909, DCM, “DLP Notification Value Configured”)			1	M		DCID (230) Yes-No		
										SRT	R-0038D	Yes
										SRT	R-00339	No
										SRT	R-0038A	R-0038A
TID 10015 - 12	>>>>	CONTAINS	CODE	EV (113910, DCM, “CTDIvol Notification Value Configured”)			1	M		DCID (230) Yes-No		
										SRT	R-0038D	Yes
										SRT	R-00339	No
										SRT	R-0038A	R-0038A
TID 10015 - 13	>>>>	CONTAINS	NUM	EV (113911, DCM, “DLP Notification Value”)			1	MC	IFF value of Row 11 is (R-0038D,SRT, “Yes”)	Units = EV (mGy.cm, UCUM, “mGy.cm”)		
TID 10015 - 14	>>>>	CONTAINS	NUM	EV (113912, DCM, “CTDIvol Notification Value”)			1	MC	IFF value of Row 12 is (R-0038D,SRT, “Yes”)	Units = EV (mGy, UCUM, “mGy”)		
TID 10015 - 15	>>>>	CONTAINS	NUM	EV (113913, DCM, “DLP Forward Estimate”)			1	MC	IF DLP Forward Estimate (Row 15) exceeds DLP Notification Value (Row 13)	Units = EV (mGy.cm, UCUM, “mGy.cm”)		
TID 10015 - 16	>>>>	CONTAINS	NUM	EV (113914, DCM, “CTDIvol Forward Estimate”)			1	MC	IF CTDIvol Forward Estimate (Row 16) exceeds CTDIvol Notification Value (Row 14)	Units = EV (mGy, UCUM, “mGy”)		
TID 10015 - 17	>>>>	CONTAINS	TEXT	EV (113907, DCM, “Reason for Proceeding”)			1	UC	IFF DLP Forward Estimate (Row 15) exceeds DLP Notification Value (Row 13) or CTDIvol Forward Estimate (Row 16) exceeds CTDIvol Notification Value (Row 14)			
TID 10015 - 18	>>>>	CONTAINS	INCLUDE	DTID (1020) Person Participant			1	UC	IFF DLP Forward Estimate (Row 15) exceeds DLP Notification Value (Row 13) or CTDIvol Forward Estimate (Row 16) exceeds CTDIvol Notification Value (Row 14)	$PersonProcedureRole = EV (113850, DCM, “Irradiation Authorizing”)		
TID 1020 - 1	>>>		PNAME	EV (113870,DCM, “Person Name”)			1	M				
TID 1020 - 2	>>>>>	HAS PROPERTIES	CODE	EV (113875,DCM, “Person Role in Procedure”)			1	M		$PersonProcedureRole		
TID 1020 - 3	>>>	HAS PROPERTIES	TEXT	EV (113871,DCM, ”Person ID”)			1	U				
TID 1020 - 4	>>>	HAS PROPERTIES	TEXT	EV (113872,DCM, ”Person ID Issuer”)			1	U				
TID 1020 - 5	>>>	HAS PROPERTIES	TEXT	EV (113873,DCM, “Organization Name”)			1	U				
										BCID (7452) Organizational Roles		
										DCM	121081	Physician
										DCM	121082	Nurse
										DCM	121083	Technologist
										DCM	121084	Radiographer
										DCM	121085	Intern

DTID(1020)

DTID(10015)

DTID(1020)

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Row	NL				Rel with Parent	VT	Concept Name			VM	Re	Condition	Value Set Constraint		
							Coding Scheme Designator (0008,0102)	Code Vaue (0008,0100)	Code Meaning (0008,0104)				Coding Scheme Designator (0008,0102)	Code Vaue (0008,0100)	Code Meaning (0008,0104)
TID 1020 - 6	>>> >>				HAS PROPERTIES	CODE	EV (113874,DCM, “Person Role in Organization”)			1	U		DCM	121086	Resident
													DCM	121087	Registrar
													DCM	121088	Fellow
													DCM	121089	Attending [Consultant]
													DCM	121090	Scrub nurse
													DCM	121091	Surgeon
													DCM	121092	Sonologist
													DCM	121093	Sonographer
													DCM	121105	Radiation Physicist
TID 10013 - 31	>>				CONTAINS	TEXT	EV (113842, DCM, “X-Ray Modulation Type”)			1	U				
TID 10013 - 32	>>				CONTAINS	TEXT	EV (121106, DCM, “Comment”)			1	U				
TID 10013 - 33	>>				CONTAINS	INCLUDE	DTID (1020) Person Participant			1-n	U		$PersonProcedureRole = EV(113851, DCM, “Irradiation Administering”)		
TID 1020 - 1	>>					PNAME	EV (113870,DCM, “Person Name”)			1	M				
TID 1020 - 2	>>>				HAS PROPERTIES	CODE	EV (113875,DCM, “Person Role in			1	M		$PersonProcedureRole		
TID 1020 - 3	>>>				HAS PROPERTIES	TEXT	EV (113871,DCM, ”Person ID”)			1	U				
TID 1020 - 4	>>>				HAS PROPERTIES	TEXT	EV (113872,DCM, ”Person ID Issuer”)			1	U				
TID 1020 - 5	>>>				HAS PROPERTIES	TEXT	EV (113873,DCM, “Organization Name”)			1	U				
TID 1020 - 6	>>>		DTID(1020)		HAS PROPERTIES	CODE	EV (113874,DCM, “Person Role in Organization”)			1	U		BCID (7452) Organizational Roles		
													DCM	121081	Physician
													DCM	121082	Nurse
													DCM	121083	Technologist
													DCM	121084	Radiographer
													DCM	121085	Intern
													DCM	121086	Resident
													DCM	121087	Registrar
													DCM	121088	Fellow
													DCM	121089	Attending [Consultant]
													DCM	121090	Scrub nurse
													DCM	121091	Surgeon
													DCM	121092	Sonologist
													DCM	121093	Sonographer
													DCM	121105	Radiation Physicist
TID 10013 - 34	>>		DTID(1021)		CONTAINS	INCLUDE	DTID (1021) Device articipant			1	MC	Required if the irradiating device is not the recording device.	$DeviceProcedureRole = EV(113859, DCM, “Irradiating Device”)		
TID 1021 - 1	>>					CODE	EV (113876, DCM, “Device Role in Procedure”)			1	M		$DeviceProcedureRole		
TID 1021 - 2	>>>				HAS PROPERTIES	TEXT	EV (113877, DCM, “Device Name”)			1	U				
TID 1021 - 3	>>>				HAS PROPERTIES	TEXT	EV (113878, DCM, “Device Manufacturer”)			1	M				
TID 1021 - 4	>>>				HAS PROPERTIES	TEXT	EV (113879, DCM, “Device Model Name”)			1	M				
TID 1021 - 5	>>>				HAS PROPERTIES	TEXT	EV (113880, DCM, “Device Serial Number”)			1	M				
TID 1021 - 6	>>>				HAS PROPERTIES	UIDREF	EV (121012,DCM, “Device Observer UID”)			1	M				
TID 10011 - 11	>				CONTAINS	TEXT	EV (121106, DCM, “Comment”)			1	U				
TID 10011 - 12	>				CONTAINS	CODE	EV (113854, DCM, “Source of Dose Information”)			1-n	M		DCID (10021) Source of CT Dose Information		
													DCM	113856	Automated Data
													DCM	113857	Manual Entry
													DCM	113866	Copied From Image Attributes
													DCM	113867	Computed From Image Attributes
													DCM	113868	Derived From Human-Readable Reports
TID 10011 - 13	>		DTID(1020)		CONTAINS	INCLUDE	DTID (1020) Person Participant			1	U		$PersonProcedureRole = EV(113850, DCM, “Irradiation Authorizing”)		
TID 1020 - 1	>					PNAME	EV (113870,DCM, “Person Name”)			1	M				
TID 1020 - 2	>>				HAS PROPERTIES	CODE	EV (113875,DCM, “Person Role in			1	M		$PersonProcedureRole		
TID 1020 - 3	>>				HAS PROPERTIES	TEXT	EV (113871,DCM, ”Person ID”)			1	U				
TID 1020 - 4	>>				HAS PROPERTIES	TEXT	EV (113872,DCM, ”Person ID Issuer”)			1	U				
TID 1020 - 5	>>				HAS PROPERTIES	TEXT	EV (113873,DCM, “Organization Name”)			1	U				
TID 1020 - 6	>>				HAS PROPERTIES	CODE	EV (113874,DCM, “Person Role in Organization”)			1	U		BCID (7452) Organizational Toles		
													DCM	121081	Physician
													DCM	121082	Nurse
													DCM	121083	Technologist
													DCM	121084	Radiographer
													DCM	121085	Intern
													DCM	121086	Resident
													DCM	121087	Registrar
													DCM	121088	Fellow
													DCM	121089	Attending [Consultant]
													DCM	121090	Scrub nurse
													DCM	121091	Surgeon
													DCM	121092	Sonologist
													DCM	121093	Sonographer
													DCM	121105	Radiation Physicist

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Row	NL	Rel with Parent	VT	Concept Name			VM	Re	Condition	Value Set Constraint		
				Coding Scheme Designator (0008,0102)	Code Vaue (0008,0100)	Code Meaning (0008,0104)				Coding Scheme Designator (0008,0102)	Code Vaue (0008,0100)	Code Meaning (0008,0104)
TID 10001 - 1			CONTAINER	EV (113701, DCM, “X-Ray Radiation Dose			1	M				
TID 10001 - 2	>	HAS CONCEPT MOD	CODE	EV (121058, DCM, ”Procedure reported”)			1	M		DT (113704, DCM, “Projection X-Ray”) DT (P5-40010, SRT, “Mammography”)		
TID 10001 - 3	>>	HAS CONCEPT MOD	CODE	EV (G-C0E8, SRT, “Has Intent”)			1	M		DCID (3629) Procedure Intent		
										SRT	R-408C3	Diagnostic Intent
										SRT	R-41531	Therapeutic Intent
										SRT	R-002E9	Combined Diagnostic and Therapeutic Procedure
										SRT	R-408F2	Staging intent
										SRT	R-40641	Guidance Intent
										SRT	R-40644	Forensic Intent
										SRT	R-42453	Screening Intent
										SRT	R-40644	Palliative Intent
										SRT	R-41564	Adjunct intent
										SRT	R-41561	Adjuvant intent
										SRT	R-41560	Curative intent
										SRT	R-41562	Neo-adjuvant intent
										SRT	R-41563	Supportive intent
										SRT	P0-02179	Preventive intent
										SRT	P0-02180	Prophylactic intent
TID 10001 - 3b	>	CONTAINS	CODE	EV (122142, DCM, “Acquisition Device Type”)			1	U		DCID (10032) Projection X-ray Acquisition		
										DCM	113957	Fluoroscopy-Guided Projection Radiography System
										DCM	113958	Integrated Projection Radiography System
										DCM	13959	Cassette-based Projection Radiography System
TID 10001 - 4	>		INCLUDE	DTID (1002) Observer Context			1-n	M				
TID 1002 - 1	>	HAS OBS CONTEXT	CODE	EV (121005,DCM, “Observer Type”)			1	MC	IF Observer type is device	DCID (270) Observer Type		
										DCM	121006	Persoon
										DCM	121007	Device
TID 1002 - 2	>	HAS OBS CONTEXT	INCLUDE	DTID (1003) Person observer identifying attributes			1	MC	IF Row 1 value = (121006,DCM, “Person”) or Row 1 is absent			
TID 1003 - 1	>		PNAME	EV (121008,DCM, “Person Observer Name”)			1	M				
TID 1003 - 2	>		TEXT	EV (121009,DCM, “Person Observer’s Organization Name”)			1	U		Defaults to Institution Name (0008,0080) of the General Equipment Module		
TID 1003 - 3	>		CODE	EV (121010,DCM, “Person Observer’s Role in the Organization”)			1	U		BCID(7452) Organizational Roles		
										DCM	121081	Physician
										DCM	121082	Nurse
										DCM	121083	Technologist
										DCM	121084	Radiographer
										DCM	121085	Intern
										DCM	121086	Resident
										DCM	121087	Registrar
										DCM	121088	Fellow
										DCM	121089	Attending [Consultant]
										DCM	121090	Scrub nurse
										DCM	121091	Surgeon
										DCM	121092	Sonologist
										DCM	121093	Sonographer
										DCM	121105	Radiation Physicist
TID 1003 - 4	>		CODE	EV (121011,DCM, “Person Observer’s Role in this Procedure”)			1	U		BCID(7453) Performing Roles		
										DCM	121094	Performing
										DCM	121095	Referring
										DCM	121096	Requesting
										DCM	121097	Recording
										DCM	121098	Verifying
										DCM	121099	Assisting
										DCM	121100	Circulating
										DCM	121101	Standby
										DCM	113850	Irradiation Authorizing
										DCM	113851	Irradiation Administering
TID 1002 - 3	>	HAS OBS CONTEXT	INCLUDE	DTID (1004) Device observer identifying attributes			1	MC	IF Row 1 value = (121007,DCM, “Device”)			
TID 1004 - 1	>		UIDREF	EV (121012,DCM, “Device Observer UID”)			1	M				
TID 1004 - 2	>		TEXT	EV (121013,DCM, “Device Observer Name”)			1	U		Defaults to value of Station Name (0008,1010) in General Equipment Module		
TID 1004 - 3	>		TEXT	EV (121014,DCM, “Device Observer Manufacturer”)			1	U		Defaults to value of Manufacturer (0008,0070) in General Equipment Module		
TID 1004 - 4	>		TEXT	EV (121015,DCM, “Device Observer Model Name”)			1	U		Defaults to value of Manufacturer’s Model Name (0008,1090) in General Equipment		
TID 1004 - 5	>		TEXT	EV (121016,DCM, “Device Observer Serial Number”)			1	U		Defaults to value of Device Serial Number (0018,1000) in General Equipment Module		
TID 1004 - 6	>		TEXT	EV (121017,DCM, “Device Observer Physical Location during observation”)			1	U				
TID 1004 - 7	>		TEXT	EV (113876, DCM, “DeviceRole in Procedure”)			1-n	U		BCID (7445) Device Participating Roles		
										DCM	113859	Irradiating Device
										DCM	121097	Recording
										DCM	113942	X-Ray Reading Device
TID 10001 - 5	>	HAS OBS CONTEXT	CODE	EV (113705, DCM, “Scope of Accumulation”)			1	M		DCID (10000) Scope of Accumulation		
										DCM	113014	Study
										DCM	113015	Series
										DCM	113016	Performed Procedure
										DCM	113852	Irradiation Event
TID 10001 - 6	>>	HAS PROPERTIES	UIDREF	DCID (10001) UID Types			1	M				
				DCM	110180	Study Instance UID						
				DCM	112002	Series Instance UID						
				DCM	121126	Performed Procedure Step SOP Instance UID						
				DCM	113853	Irradiation Event UID						
TID 10001 - 7	>	CONTAINS	CODE	EV (113945, DCM, “X-Ray Detector Data Available”)			1	U		DCID (230) Yes-No		
										SRT	R-0038D	Yes
										SRT	R-00339	No
										SRT	R-0038A	Undetermined
										DCID (230) Yes-No		

TID(1002)

DTID(1003)

DTID(1004)

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Row	NL				Rel with Parent	VT	Concept Name			VM	Re	Condition	Value Set Constraint		
							Coding Scheme Designator (0008,0102)	Code Vaue (0008,0100)	Code Meaning (0008,0104)				Coding Scheme Designator (0008,0102)	Code Vaue (0008,0100)	Code Meaning (0008,0104)
TID 10001 - 8	>				CONTAINS	CODE	EV (113943, DCM, “X-Ray Source Data Available”)			1	U		SRT	R-0038D	Yes
													SRT	R-00339	No
													SRT	R-0038A	Undetermined
TID 10001 - 9	>				CONTAINS	CODE	EV (113944, DCM, “X-Ray Mechanical Data Available”)			1	U		DCID (230) Yes-No		
													SRT	R-0038D	Yes
													SRT	R-00339	No
													SRT	R-0038A	Undetermined
TID 10001 - 10	>				CONTAINS	INCLUDE	DTID (10002) Accumulated X-Ray Dose			1	MC	IFF Single Plane system	$Plane = EV (113622, DCM, ”Single Plane”		
TID 10002 - 1	>					CONTAINER	EV (113702, DCM, ”Accumulated X-Ray Dose Data”)			1	M				
TID 10002 - 2	>>				HAS CONCEPT MOD	CODE	EV (113764, DCM, “Acquisition Plane”)			1	M		$Plane		
TID 10002 - 3	>>				CONTAINS	CONTAINER	EV (122505, DCM “Calibration”)			1-n	MC	FF Calibration Data is available			
TID 10002 - 4	>>>				HAS CONCEPT MOD	CODE	EV (113794, DCM, “Dose Measurement Device”)			1	M		DCID (10010) Dose Measurement Devices		
													SRT	A-2C090	Dosimeter
TID 10002 - 5	>>>				CONTAINS	DATETIME	EV (113723, DCM, “Calibration Date”)			1	M				
TID 10002 - 6	>>>				CONTAINS	NUM	EV (122322, DCM, “Calibration Factor”)			1	M		Units = EV (1, UCUM, “no units”)		
TID 10002 - 7	>>>				CONTAINS	NUM	EV (113763, DCM, “Calibration Uncertainty”)			1	M		Units = EV (%, UCUM, “Percent”)		
TID 10002 - 8	>>>				CONTAINS	TEXT	EV (113724, DCM, “Calibration Responsible			1	M				
TID 10002 - 9	>>				CONTAINS	INCLUDE	DTID (10004) Accumulated Projection X-Ray Dose			1	MC	IFF TID (10001) Row 3b = (113957, DCM, “Fluoroscopy-Guided Projection Radiography System”) or (TID (10001) Row 2 = (113704, DCM, “Projection X-Ray”) and TID (10001) Row 3b is absent)			
TID 10004 - 1	>>					NUM	EV (113722, DCM, “Dose Area Product otal”)			1	M		Units = EV (Gy.m2, UCUM, “Gy.m2”)		
TID 10004 - 2	>>					NUM	EV (113725, DCM, “Dose (RP) Total”)			1	MC	IF any of the values of TID (10001) Row 14 are not (113858, DCM, “MPPS Content”). May be present otherwise.	Units = EV (Gy, UCUM, “Gy”)		
TID 10004 - 3	>>					NUM	EV (113726, DCM, “Fluoro Dose Area Product Total”)			1	MC	IFF TID(10003) Row 4 value = (P5-06000, SRT, “Fluoroscopy”) for at least one irradiation event	Units = EV (Gy.m2, UCUM, “Gy.m2”)		
TID 10004 - 4	>>					NUM	EV (113728, DCM, “Fluoro Dose (RP) Total”)			1	MC	IFF TID(10003) Row 4 value = (P5-06000, SRT, “Fluoroscopy”) for at least one irradiation event AND any of the values of TID(10001) Row 14 are not (113858, DCM, “MPPS Content”).	Units = EV (Gy, UCUM, “Gy”)		
TID 10004 - 5	>>					NUM	EV (113730, DCM, “Total Fluoro Time”)			1	MC	IFF TID(10003) Row 4 value = (P5-06000, SRT, “Fluoroscopy”) for at least one irradiation event.	Units = EV (s, UCUM, “s”)		
TID 10004 - 6	>>					NUM	EV (113727, DCM, “Acquisition Dose Area Product Total”)			1	M		Units = EV (Gy.m2, UCUM, “Gy.m2”)		
TID 10004 - 7	>>					NUM	EV (113729, DCM, “Acquisition Dose (RP) Total”)			1	MC	IF any of the values of TID (10001) Row 14 are not (113858, DCM, “MPPS Content”). May be present otherwise.	Units = EV (Gy, UCUM, “Gy”)		
TID 10004 - 8	>>					NUM	EV (113855, DCM, “Total Acquisition Time”)			1	M		Units = EV (s, UCUM, “s”)		
TID 10004 - 9	>>					NUM	EV (113731, DCM, “Total Number of Radiographic Frames”)			1	U		Units = EV (1, UCUM, “no units”)		
TID 10004 - 10	>>					CODE	EV (113780, DCM, “Reference Point Definition”)			1	MC	IF Row 2, Row 4 or Row 7 is present and Row 11 is not present.	DCID (10025) Radiation ose Reference Points		
													DCM	113860	15cm from Isocenter toward Source
													DCM	113861	30cm in Front of Image Input Surface
													DCM	113862	1cm above Tabletop
													DCM	113863	30cm above Tabletop
													DCM	113864	15cm from Table
													DCM	113865	Entrance exposure to a 4.2 cm breast thickness
													DCM	113941	In Detector Plane
TID 10004 - 11	>>					TEXT	EV (113780, DCM,“Reference Point Definition”)			1	MC	IF Row 2, Row 4 or Row 7 is present and Row 10 is not present.			
TID 10002 - 10	>>				CONTAINS	INCLUDE	DTID (10005)Accumulated Mammography X-Ray Dose			1	MC	IFF TID (10001) Row 2 = (P5-40010, SRT, “Mammography”)			
TID 10005 - 1	>>					NUM	EV (111637, DCM, “Accumulated Average Glandular Dose”)			1-2	M		Units = EV (dGy, UCUM, “dGy”		
TID 10005 - 2	>>>				HAS CONCEPT MOD	CODE	EV (G-C171, SRT, “Laterality")			1	M		DCID (6022) Side		
													SRT	T-04030	Left breast
													SRT	T-04020	Right breast
													SRT	T-04080	Both breasts
TID 10002 - 11	>>				CONTAINS	INCLUDE	DTID (10007) Accumulated Integrated			1	MC	IFF TID (10001) Row 3b			
TID 10007 - 1	>>					NUM	EV (113722, DCM, “Dose Area Product Total”)			1	M		Units = EV (Gy.m2, UCUM, “Gy.m2”)		
TID 10007 - 2	>>					NUM	EV (113725, DCM, “Dose (RP) Total”)			1	M		Units = EV (Gy, UCUM, “Gy”)		
TID 10007 - 3	>>					NUM	EV (113731, DCM, “Total Number of Radiographic Frames”)			1	U		Units = EV (1, UCUM, “no units”)		
													DCID (10025) Radiation Dose Reference		

DTID(10004)

TID(10002)

TID(10005)

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Row	NL				Rel with Parent	VT	Concept Name			VM	Re	Condition	Value Set Constraint		
							Coding Scheme Designator (0008,0102)	Code Vaue (0008,0100)	Code Meaning (0008,0104)				Coding Scheme Designator (0008,0102)	Code Vaue (0008,0100)	Code Meaning (0008,0104)
TID 10007 - 4	>>		TID(10007)			CODE	EV (113780, DCM, “Reference Point Definition”)			1	MC	IF Row 5 is not present.	DCM	113860	15cm from Isocenter toward Source
													DCM	113861	30cm in Front of Image Input Surface
													DCM	113862	1cm above Tabletop
													DCM	113863	30cm above Tabletop
													DCM	113864	15cm from Table
													DCM	113865	Entrance exposure to a 4.2 cm breast thickness
													DCM	113941	In Detector Plane
TID 10007 - 5	>>					TEXT	EV (113780, DCM, “Reference Point Definition”)			1	MC	IF Row 4 is not present.			
TID 10002 - 12	>>			TID(10006)	CONTAINS	INCLUDE	DTID (10006) Accumulated Cassette-based Projection Radiography Dose			1	MC	IFF TID (10001) Row 3b = (113959, DCM, “Cassette-based Projection Radiography System”)			
TID 10006 - 1	>>					CODE	EV(113947, DCM, “Detector Type”)			1	MC	EV (113731, DCM, “Total Number of Radiographic Frames”)	DCID (10030) Detector Types		
													DCM	113948	Direct Detector
													DCM	113949	Indirect Detector
													DCM	113950	Storage Detector
													DCM	113951	Film
TID 10006 - 2	>>					NUM	EV (113731, DCM, “Total Number of Radiographic Frames”)			1	MC	IF TID (10001) Row 7 is absent or value is (R-0038D, SRT, “Yes”)	Units = EV (1, UCUM, “no units”)		
TID 10002 - 13	>>			TID(10021)	CONTAINS	INCLUDE	DTID (1021) Device Participant			1	MC	Required if the irradiating device is not the recording device and the dose was accumulated on a single device.	$DeviceProcedureRole = EV (113859, DCM, “Irradiating Device”)		
TID 1021 - 1	>>					CODE	EV (113876, DCM, “Device Role in Procedure”)			1	M		$DeviceProcedureRole		
TID 1021 - 2	>>>				HAS PROPERTIES	TEXT	EV (113877, DCM, “Device Name”)			1	U				
TID 1021 - 3	>>>				HAS PROPERTIES	TEXT	EV (113878, DCM, “Device Manufacturer”)			1	M				
TID 1021 - 4	>>>				HAS PROPERTIES	TEXT	EV (113879, DCM, “Device Model Name”)			1	M				
TID 1021 - 5	>>>				HAS PROPERTIES	TEXT	EV (113880, DCM, “Device Serial Number”)			1	M				
TID 1021 - 6	>>>				HAS PROPERTIES	UIDREF	EV (121012,DCM, “Device Observer UID”)			1	M				
TID 10001 - 11	>				CONTAINS	INCLUDE	DTID (10002) Accumulated X-Ray Dose			1	MC	IFF Biplane system	$Plane = EV (113620, DCM, ”Plane A”)		
TID 10002 - 1	>					CONTAINER	EV (113702, DCM, ”Accumulated X-Ray Dose Data”)			1	M				
TID 10002 - 2	>>				HAS CONCEPT MOD	CODE	EV (113764, DCM, “Acquisition Plane”			1	M		$Plane		
TID 10002 - 3	>>				CONTAINS	CONTAINER	EV (122505, DCM, “Calibration”)			1-n	MC	IFF Calibration Data is available			
TID 10002 - 4	>>>				HAS CONCEPT MOD	CODE	EV (113794, DCM, “Dose Measurement Device”)			1	M		DCID (10010) Dose Measurement Devices		
													SRT	A-2C090	Dosimeter
TID 10002 - 5	>>>				CONTAINS	DATETIME	EV (113723, DCM, “Calibration Date”)			1	M				
TID 10002 - 6	>>>				CONTAINS	NUM	EV (122322, DCM, “Calibration Factor”)			1	M		Units = EV (1, UCUM, “no units”)		
TID 10002 - 7	>>>				CONTAINS	NUM	EV (113763, DCM, “Calibration Uncertainty”)			1	M		Units = EV (%, UCUM, “Percent”)		
TID 10002 - 8	>>>				CONTAINS	TEXT	EV (113724, DCM, “Calibration Responsible Party”)			1	M				
TID 10002 - 9	>>				CONTAINS	INCLUDE	DTID (10004) Accumulated Projection X-Ray Dose			1	MC	XOR row 10, IFF TID (10001) Row 2 = (113704, DCM, “Projection X-Ray”)			
TID 10004 - 1	>>			TID(10004)		NUM	EV (113722, DCM, “Dose Area Product Total”)			1	M		Units = EV (Gy.m2, UCUM, “Gy.m2”)		
TID 10004 - 2	>>					NUM	EV (113725, DCM, “Dose (RP) Total”)			1	MC	IF any of the values of TID (10001) Row 14 are not (113858, DCM, “MPPS Content”). May be present otherwise.	Units = EV (Gy, UCUM, “Gy”)		
TID 10004 - 3	>>					NUM	EV (113726, DCM, “Fluoro Dose Area Product Total”)			1	MC	IFF TID(10003) Row 4 value = (P5-06000, SRT, “Fluoroscopy”) for at least one irradiation event	Units = EV (Gy.m2, UCUM, “Gy.m2”)		
TID 10004 - 4	>>					NUM	EV (113728, DCM, “Fluoro Dose (RP) Total”)			1	MC	IFF TID(10003) Row 4 value = (P5-06000, SRT, “Fluoroscopy”) for at least one irradiation event AND any of the values of TID (10001) Row 14 are not (113858, DCM, “MPPS Content”).	Units = EV (Gy, UCUM, “Gy”)		
TID 10004 - 5	>>					NUM	EV (113730, DCM, “Total Fluoro Time”)			1	MC	IFF TID(10003) Row 4 value = (P5-06000, SRT, “Fluoroscopy”) for at least one irradiation event.	Units = EV (s, UCUM, “s”)		
TID 10004 - 6	>>					NUM	EV (113727, DCM, “Acquisition Dose Area Product Total”)			1	M		Units = EV (Gy.m2, UCUM, “Gy.m2”)		
TID 10004 - 7	>>					NUM	EV (113729, DCM, “Acquisition Dose (RP) Total”)			1	MC	IF any of the values of TID (10001) Row 14 are not (113858, DCM, “MPPS Content”). May be present otherwise.	Units = EV (Gy, UCUM, “Gy”)		
TID 10004 - 8	>>					NUM	EV (113855, DCM, “Total Acquisition Time”)			1	M		Units = EV (s, UCUM, “s”)		
TID 10004 - 9	>>					NUM	EV (113731, DCM, “Total Number of Radiographic Frames”)			1	U		Units = EV (1, UCUM, “no units”)		
													DCID (10025) Radiation Dose Reference		

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Row	NL	Rel with Parent	VT	Concept Name			VM	Re	Condition	Value Set Constraint		
				Coding Scheme Designator (0008,0102)	Code Vaue (0008,0100)	Code Meaning (0008,0104)				Coding Scheme Designator (0008,0102)	Code Vaue (0008,0100)	Code Meaning (0008,0104)
TID 10004 - 10	>>		CODE	EV (113780, DCM, “Reference Point Definition”)			1	MC	IF Row 2, Row 4 or Row 7 is present and Row 11 is not present.	DCM	113860	15cm from Isocenter toward Source
										DCM	113861	30cm in Front of Image Input Surface
										DCM	113862	1cm above Tabletop
										DCM	113863	30cm above Tabletop
										DCM	113864	15cm from Table
										DCM	113865	Entrance exposure to a 4.2 cm breast thickness
										DCM	113941	In Detector Plane
TID 10004 - 11	>>		TEXT	EV (113780, DCM, “Reference Point Definition”)			1	MC	IF Row 2, Row 4 or Row 7 is present and Row 10 is not present.			
TID 10002 - 10	>>	CONTAINS	INCLUDE	DTID (10005) Accumulated Mammography Xray Dose			1	MC	XOR row 9, IFF TID (10001) Row 2 = (P5-40010, SRT, “Mammography”)			
TID 10005 - 1	>>		NUM	EV (111637, DCM, “Accumulated Average Glandular Dose”)			1-2	M		Units = EV (dGy, UCUM,“dGy”)		
TID 10005 - 2	>>>	HAS CONCEPT MOD	CODE	EV (G-C171, SRT, “Laterality")			1	M		DCID (6022) Side		
										SRT	T-04030	Left breast
										SRT	T-04020	Right breast
										SRT	T-04080	Both breasts
TID 10002 - 11	>>	CONTAINS	INCLUDE	DTID (10007) Accumulated Integrated			1	MC	IFF TID (10001) Row 3b			
TID 10007 - 1	>>		NUM	EV (113722, DCM, “Dose Area Product			1	M		Units = EV (Gy.m2, UCUM, “Gy.m2”)		
TID 10007 - 2	>>		NUM	EV (113725, DCM, “Dose (RP) Total”)			1	M		Units = EV (Gy, UCUM, “Gy”)		
TID 10007 - 3	>>		NUM	EV (113731, DCM, “Total Number of Radiographic Frames”)			1	U		Units = EV (1, UCUM, “no units”)		
TID 10007 - 4	>>		CODE	EV (113780, DCM, “Reference Point Definition”)			1	MC	IF Row 5 is not present.	DCID (10025) Radiation Dose Reference Points		
										DCM	113860	15cm from Isocenter toward Source
										DCM	113861	30cm in Front of Image Input Surface
										DCM	113862	1cm above Tabletop
										DCM	113863	30cm above Tabletop
										DCM	113864	15cm from Table Centerline
										DCM	113865	Entrance exposure to a 4.2 cm breast thickness
										DCM	113941	In Detector Plane
TID 10007 - 5	>>		TEXT	EV (113780, DCM, “Reference Point Definition”)			1	MC	IF Row 4 is not present.			
TID 10002 - 12	>>	CONTAINS	INCLUDE	DTID (10006) Accumulated Cassette-based Projection Radiography Dose			1	MC	IFF TID (10001) Row 3b = (113959, DCM, “Cassette-based Projection Radiography System”)			
TID 10006 - 1	>>		CODE	EV(113947, DCM, “Detector Type”)			1	MC	EV (113731, DCM, “Total Number of Radiographic Frames”)	DCID (10030) Detector Types		
										DCM	113948	Direct Detector
										DCM	113949	Indirect Detector
										DCM	113950	Storage Detector
										DCM	113951	Film
TID 10006 - 2	>>		NUM	EV (113731, DCM, “Total Number of Radiographic Frames”)			1	MC	IF TID (10001) Row 7 is absent or value is (R-0038D, SRT, “Yes”)	Units = EV (1, UCUM, “no units”)		
TID 10002 - 13	>>	CONTAINS	INCLUDE	DTID (1021) Device Participant			1	MC	Required if the irradiating device is not the recording device and the dose was accumulated on a single device.	$DeviceProcedureRole = EV (113859, DCM, “Irradiating Device”)		
TID 1021 - 1	>>		CODE	EV (113876, DCM, “Device Role in Procedure”)			1	M		$DeviceProcedureRole		
TID 1021 - 2	>>>	HAS PROPERTIES	TEXT	EV (113877, DCM, “Device Name”)			1	U				
TID 1021 - 3	>>>	HAS PROPERTIES	TEXT	EV (113878, DCM, “Device Manufacturer”)			1	M				
TID 1021 - 4	>>>	HAS PROPERTIES	TEXT	EV (113879, DCM, “Device Model Name”)			1	M				
TID 1021 - 5	>>>	HAS PROPERTIES	TEXT	EV (113880, DCM, “Device Serial Number”)			1	M				
TID 1021 - 6	>>>	HAS PROPERTIES	UIDREF	EV (121012,DCM, “Device Observer UID”)			1	M				
TID 10001 - 12	>	CONTAINS	INCLUDE	DTID (10002) Accumulated X-Ray Dose			1	MC	IFF Biplane system	$Plane = EV (113621, DCM, ”Plane B”)		
TID 10002 - 1	>		CONTAINER	EV (113702, DCM, ”Accumulated X-Ray Dose Data”)			1	M				
TID 10002 - 2	>>	HAS CONCEPT MOD	CODE	EV (113764, DCM, “Acquisition Plane”			1	M		$Plane		
TID 10002 - 3	>>	CONTAINS	CONTAINER	EV (122505, DCM, “Calibration”)			1-n	MC	IFF Calibration Data is available			
TID 10002 - 4	>>>	HAS CONCEPT MOD	CODE	EV (113794, DCM, “Dose Measurement Device”)			1	M		DCID (10010) Dose Measurement Devices		
										SRT	A-2C090	Dosimeter
TID 10002 - 5	>>>	CONTAINS	DATETIME	EV (113723, DCM, “Calibration Date”)			1	M				
TID 10002 - 6	>>>	CONTAINS	NUM	EV (122322, DCM, “Calibration Factor”)			1	M		Units = EV (1, UCUM, “no units”)		
TID 10002 - 7	>>>	CONTAINS	NUM	EV (113763, DCM, “Calibration Uncertainty”)			1	M		Units = EV (%, UCUM, “Percent”)		
TID 10002 - 8	>>>	CONTAINS	TEXT	EV (113724, DCM, “Calibration Responsible Party”)			1	M				
TID 10002 - 9	>>	CONTAINS	INCLUDE	DTID (10004) Accumulated Projection X-Ray Dose			1	MC	XOR row 10, IFF TID (10001) Row 2 = (113704, DCM, “Projection X-Ray”)			
TID 10004 - 1	>>		NUM	EV (113722, DCM, “Dose Area Product Total”)			1	M		Units = EV (Gy.m2, UCUM, “Gy.m2”)		
TID 10004 - 2	>>		NUM	EV (113725, DCM, “Dose (RP) Total”)			1	MC	IF any of the values of TID (10001) Row 14 are not (113858, DCM, “MPPS Content”). May be present otherwise.	Units = EV (Gy, UCUM, “Gy”)		

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Row	NL				Rel with Parent	VT	Concept Name			VM	Re	Condition	Value Set Constraint		
							Coding Scheme Designator (0008,0102)	Code Vaue (0008,0100)	Code Meaning (0008,0104)				Coding Scheme Designator (0008,0102)	Code Vaue (0008,0100)	Code Meaning (0008,0104)
TID 10004 - 3	>>		TID(10004)			NUM	EV (113726, DCM, “Fluoro Dose Area Product Total”)			1	MC	IFF TID(10003) Row 4 value = (P5-06000, SRT, “Fluoroscopy”) for at least one irradiation event	Units = EV (Gy.m2, UCUM, “Gy.m2”)		
TID 10004 - 4	>>					NUM	EV (113728, DCM, “Fluoro Dose (RP) Total”)			1	MC	IFF TID(10003) Row 4 value = (P5-06000, SRT, “Fluoroscopy”) for at least one irradiation event AND any of the values of TID (10001) Row 14 are not (113858, DCM, “MPPS Content”).	Units = EV (Gy, UCUM, “Gy”)		
TID 10004 - 5	>>					NUM	EV (113730, DCM, “Total Fluoro Time”)			1	MC	IFF TID(10003) Row 4 value = (P5-06000, SRT, “Fluoroscopy”) for at least one irradiation event.	Units = EV (s, UCUM, “s”)		
TID 10004 - 6	>>					NUM	EV (113727, DCM, “Acquisition Dose Area Product Total”)			1	M		Units = EV (Gy.m2, UCUM, “Gy.m2”)		
TID 10004 - 7	>>					NUM	EV (113729, DCM, “Acquisition Dose (RP) Total”)			1	MC	IF any of the values of TID (10001) Row 14 are not (113858, DCM, “MPPS Content”). May be present otherwise.	Units = EV (Gy, UCUM, “Gy”)		
TID 10004 - 8	>>					NUM	EV (113855, DCM, “Total Acquisition Time”)			1	M		Units = EV (s, UCUM, “s”)		
TID 10004 - 9	>>					NUM	EV (113731, DCM, “Total Number of Radiographic Frames”)			1	U		Units = EV (1, UCUM, “no units”)		
TID 10004 - 10	>>					CODE	EV (113780, DCM, “Reference Point Definition”)			1	MC	IF Row 2, Row 4 or Row 7 is present and Row 11 is not present.	DCID (10025) Radiation Dose Reference		
													DCM	113860	15cm from Isocenter toward Source
													DCM	113861	30cm in Front of Image Input Surface
													DCM	113862	1cm above Tabletop
													DCM	113863	30cm above Tabletop
													DCM	113864	15cm from Table
													DCM	113865	Entrance exposure to a 4.2 cm breast thickness
													DCM	113941	In Detector Plane
TID 10004 - 11	>>					TEXT	EV (113780, DCM, “Reference Point Definition”)			1	MC	IF Row 2, Row 4 or Row 7 is present and Row 10 is not present.			
TID 10002 - 10	>>		TID(10002)		CONTAINS	INCLUDE	DTID (10005) Accumulated Mammography Xray Dose			1	MC	XOR row 9, IFF TID (10001) Row 2 = (P5-40010, SRT, “Mammography”)			
TID 10005 - 1	>>			TID (10005)		NUM	EV (111637, DCM, “Accumulated Average Glandular Dose”)			1-2	M		Units = EV (dGy, UCUM,“dGy”)		
TID 10005 - 2	>>>				HAS CONCEPT MOD	CODE	EV (G-C171, SRT, “Laterality")			1	M		DCID (6022) Side		
													SRT	T-04030	Left breast
													SRT	T-04020	Right breast
													SRT	T-04080	Both breasts
TID 10002 - 11	>>				CONTAINS	INCLUDE	DTID (10007) Accumulated Integrated Projection Radiography Dose			1	MC	IFF TID (10001) Row 3b = (113958, DCM, “Integrated Projection Radiography System”)			
TID 10007 - 1	>>			TID(10007)		NUM	EV (113722, DCM, “Dose Area Product Total”)			1	M		Units = EV (Gy.m2, UCUM, “Gy.m2”)		
TID 10007 - 2	>>					NUM	EV (113725, DCM, “Dose (RP) Total”)			1	M		Units = EV (Gy, UCUM, “Gy”)		
TID 10007 - 3	>>					NUM	EV (113731, DCM, “Total Number of Radiographic Frames”)			1	U		Units = EV (1, UCUM, “no units”)		
TID 10007 - 4	>>					CODE	EV (113780, DCM, “Reference Point Definition”)			1	MC	IF Row 5 is not present.	DCID (10025) Radiation Dose Reference		
													DCM	113860	15cm from Isocenter toward Source
													DCM	113861	30cm in Front of Image Input Surface
													DCM	113862	1cm above Tabletop
													DCM	113863	30cm above Tabletop
													DCM	113864	15cm from Table
													DCM	113865	Entrance exposure to a 4.2 cm breast thickness
													DCM	113941	In Detector Plane
TID 10007 - 5	>>					TEXT	EV (113780, DCM, “Reference Point Definition”)			1	MC	IF Row 4 is not present.			
TID 10002 - 12	>>				CONTAINS	INCLUDE	DTID (10006) Accumulated Cassette-based Projection Radiography Dose			1	MC	IFF TID (10001) Row 3b = (113959, DCM, “Cassette-based Projection Radiography System”)			
TID 10006 - 1	>>			TID(10006)		CODE	EV(113947, DCM, “Detector Type”)			1	MC	EV (113731, DCM, “Total Number of Radiographic Frames”)	DCID (10030) Detector Types		
													DCM	113948	Direct Detector
													DCM	113949	Indirect Detector
													DCM	113950	Storage Detector
													DCM	113951	Film
TID 10006 - 2	>>					NUM	EV (113731, DCM, “Total Number of Radiographic Frames”)			1	MC	IF TID (10001) Row 7 is absent or value is (R-	Units = EV (1, UCUM, “no units”)		
TID 10002 - 13	>>				CONTAINS	INCLUDE	DTID (1021) Device Participant			1	MC	Required if the irradiating device is not the recording device and the dose was accumulated on a single device.	$DeviceProcedureRole = EV (113859, DCM, “Irradiating Device”)		
TID 1021 - 1	>>		TID			CODE	EV (113876, DCM, “Device Role in Procedure”)			1	M		$DeviceProcedureRole		
TID 1021 - 2	>>>				HAS PROPERTIES	TEXT	EV (113877, DCM, “Device Name”)			1	U				

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Row	NL				Rel with Parent	VT	Concept Name			VM	Re	Condition	Value Set Constraint		
							Coding Scheme Designator (0008,0102)	Code Vaue (0008,0100)	Code Meaning (0008,0104)				Coding Scheme Designator (0008,0102)	Code Vaue (0008,0100)	Code Meaning (0008,0104)
TID 1021 - 3	>>>		(1021)		HAS PROPERTIES	TEXT	EV (113878, DCM, “Device Manufacturer”)			1	M				
TID 1021 - 4	>>>				HAS PROPERTIES	TEXT	EV (113879, DCM, “Device Model Name”)			1	M				
TID 1021 - 5	>>>				HAS PROPERTIES	TEXT	EV (113880, DCM, “Device Serial Number”)			1	M				
TID 1021 - 6	>>>				HAS PROPERTIES	UIDREF	EV (121012,DCM, “Device Observer UID”)			1	M				
TID 10001 - 13	>				CONTAINS	INCLUDE	DTID (10003) Irradiation Event Xray Data			1-n	M				
TID 10003 - 1	>					CONTAINER	EV (113706, DCM, ”Irradiation Event Xray Data”)			1	M				
TID 10003 - 1b	>>				HAS CONCEPT MOD	CODE	EV (113764, DCM, “Acquisition Plane”)			1	M		DCID (10003) Equipment Plane Identification		
													DCM	113620	Plane A
													DCM	13621	Plane B
													DCM	13622	Single Plane
													DCM	113890	All Planes
TID 10003 - 2	>>				CONTAINS	UIDDEF	EV (113769, DCM, “Irradiation Event UID”)			1	M				
TID 10003 - 2b	>>				CONTAINS	TEXT	EV(113605, DCM, “Irradiation Event Label”)			1	U				
TID 10003 - 2c	>>>				HAS CONCEPT MOD	CODE	EV(113606, DCM, “Label Type”)			1	MC	IF the value of Row 2b is the value of an Attribute in the images.	DCID (10022) Label Type		
													DCM	113607	Series Number
													DCM	113608	Acquisition Number
													DCM	113609	Instance Number
TID 10003 - 3	>>				CONTAINS	DATETIME	DT (111526, DCM, “DateTime Started”)			1	M				
TID 10003 - 4	>>				CONTAINS	CODE	EV (113721, DCM, “Irradiation Event Type”)			1	M		DCID (10002) Irradiation Event Types		
													SRT	P5-06000	Fluoroscopy
													DCM	113611	Stationary Acquisition
													DCM	113612	Stepping Acquisition
													DCM	113613	Rotational Acquisition
TID 10003 - 5	>>				CONTAINS	TEXT	EV (125203, DCM, “Acquisition Protocol”)			1	U				
TID 10003 - 6	>>				CONTAINS	CODE	EV (T-D0005, SRT, “Anatomical structure”)			1	U		DCID (4009) DX Anatomy Imaged		
													SRT	T-D4000	Abdomen
													:	:	:
													SRT	T-63000	Gall bladder
													SRT	T-D8700	Hand
													SRT	T-D1100	Head
													:	:	:
													SRT	T-11167	Zygomatic arch
TID 10003 - 7	>>>				HAS CONCEPT MOD	CODE	EV (G-C171, SRT, “Laterality")			1	UC	If anatomy is bi-lateral	DCID (244) Laterality		
													SRT	G-A100	Right
													SRT	G-A101	Left
													SRT	G-A102	Right and left
													SRT	G-A103	Unilateral
TID 10003 - 8	>>				CONTAINS	CODE	EV (111031, DCM, “Image View”)			1	U		DCID (4010) DX View		
													SRT	R-10202	frontal
													:	:	:
													SRT	R-10224	medial-lateral
													SRT	R-40783	lateral oblique
													SRT	R-10228	lateral-medial
													:	:	:
													SRT	G-8300	tissue specimen
													DCID (4014) View for Mammography		
													SRT	R-10224	medio-lateral
													SRT	R-10226	medio-lateral oblique
													SRT	R-10228	latero-medial
													SRT	R-10230	latero-medial oblique
													SRT	R-10242	cranio-caudal
													SRT	R-10244	caudo-cranial (from
													SRT	R-102D0	superolateral to inferomedial oblique
													SRT	R-40AAA	inferomedial to superolateral oblique
													SRT	R-1024A	cranio-caudal exaggerated laterally
													SRT	R-1024B	cranio-caudal exaggerated medially
													SRT	G-8310	tissue specimen from
TID 10003 - 9	>>>				HAS CONCEPT MOD	CODE	EV (111032, DCM, “Image View Modifier”)			1-n	U		DCID (4011) DX View Modifier		
													SRT	R-10244	cephalad
													SRT	R-10242	caudad
													SRT	R-40885	transthoracic
													SRT	R-4087B	transforamenal
													SRT	G-D00B	transoral
													SRT	R-40554	transorbital
													DCM	111069	Crosstable
													SRT	R-421A4	Mouth closed
													DCID (4015) View Modifier for Mammography		
													SRT	R-102D2	Cleavage
													SRT	R-102D1	Axillary Tail
													SRT	R-102D3	Rolled Lateral
													SRT	R-102D4	Rolled Medial
													SRT	R-102CA	Rolled Inferior
													SRT	R-102C9	Rolled Superior
													SRT	R-102D5	Implant Displaced
													SRT	R-102D6	Magnification
													SRT	R-102D7	Spot Compression
													SRT	R-102C2	Tangential
													SRT	R-40AB3	Nipple in profile
													SRT	P2-00161	Anterior compression
													SRT	R-40ABE	Infra-mammary fold
													SRT	R-40AB2	Axillary tissue
TID 10003 - 10	>>>				CONTAINS	CODE	EV (113946, DCM, “Projection Eponymous Name”)			1	U		DCID (4012) Projection Eponymous Name		
													SRT	R-10261	Albers-Schonberg
													:	:	:
													SRT	R-10290	Lilienfeld
													SRT	R-10291	Lindblom
													SRT	R-10292	Lorenz
													:	:	:
													SRT	R-102B1	Zanelli
TID 10003 - 11	>>				CONTAINS	CODE	EV (113745, DCM, “Patient Table Relationship”)			1	U		DCID (21) Patient Gantry Relationship		
													SRT	R-10516	oblique
													SRT	F-10470	headfirst

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Row	NL				Rel with Parent	VT	Concept Name			VM	Re	Condition	Value Set Constraint		
							Coding Scheme Designator (0008,0102)	Code Vaue (0008,0100)	Code Meaning (0008,0104)				Coding Scheme Designator (0008,0102)	Code Vaue (0008,0100)	Code Meaning (0008,0104)
							Relationship)						SRT	F-10480	feet-first
													SRT	R-10515	transverse
TID 10003 - 12	>>				CONTAINS	CODE	EV (113743, DCM, “Patient Orientation”)			1	U		DCID (19) Patient Orientation		
													SRT	F-10440	erect
													SRT	F-10450	recumbent
													SRT	F-10460	semi-erect
													DCID (20) Patient Orientation Modifier		
													SRT	F-10310	prone
													SRT	F-10316	semi-prone
													SRT	F-10318	lateral decubitus
													SRT	F-10320	standing
													SRT	F-10326	anatomical
													SRT	F-10330	kneeling
													SRT	F-10336	knee-chest
													SRT	F-10340	supine
TID 10003 - 13	>>>				HAS CONCEPT MOD	CODE	EV (113744, DCM, “Patient Orientation Modifier”)			1	M		SRT	F-10346	lithotomy
													SRT	F-10348	Trendelenburg
													SRT	F-10349	inverse Trendelenburg
													SRT	F-10380	frog
													SRT	F-10390	stooped-over
													SRT	F-103A0	sitting
													SRT	F-10410	curled-up
													SRT	F-10317	right lateral decubitus
													SRT	F-10319	left lateral decubitus
													SRT	R-40799	lordotic
TID 10003 - 14	>>				CONTAINS	CODE	EV (123014 , DCM, ”Target Region”)			1	M		DCID (4031) Common Anatomic Regions		
													SRT	T-D4000	Abdomen
													:	:	:
													SRT	T-63000	Gall bladder
													SRT	T-D8700	Hand
													SRT	T-D1100	Head
													:	:	:
													SRT	T-11167	Zygomatic arch
TID 10003 - 15	>>				CONTAINS	NUM	EV (122130, DCM, “Dose Area Product”)			1	MC	IFF TID (10001) Row 2 = (113704, DCM, “Projection X-Ray”)	Units = EV (Gy.m2, UCUM, "Gy.m2")		
TID 10003 - 16	>>				CONTAINS	NUM	EV (111634, DCM, “Half Value Layer”)			1	U		Units = (mm, UCUM, “mm”)		
TID 10003 - 17	>>				CONTAINS	NUM	EV (111636, DCM, “Entrance Exposure at RP”)			1	MC	IF TID (10001) Row 2 = (P5-40010, SRT, “Mammography”) and (TID (10001) Row 8 is absent or value is (R-0038D, SRT, “Yes”)) and (TID (10001) Row 9 is absent or value is (R-0038D, SRT, “Yes”))	Units = EV (mGy, UCUM, “mGy”)		
TID 10003 - 18	>				CONTAINS	TEXT	EV (113780, DCM, “Reference Point Definition”)			1	MC	Row 17 is present and Row 19 is not present			
TID 10003 - 19	>				CONTAINS	CODE	EV (113780, DCM, “Reference Point Definition”)			1	MC	IF Row 17 is present and Row 18 is not present	DCID (10025) Radiation Dose Reference		
													DCM	113860	15cm from Isocenter toward Source
													DCM	113861	30cm in Front of Image Input Surface
													DCM	113862	1cm above Tabletop
													DCM	113863	30cm above Tabletop
													DCM	113864	15cm from Table
													DCM	113865	Entrance exposure to a 4.2 cm breast thickness
													DCM	113941	In Detector Plane
TID 10003 - 20	>>				CONTAINS	INCLUDE	DTID (4007) Mammography CAD Breast			1	U				
TID 4007 - 1	>>		TID(4007)			CODE	EV (F-01710,SRT, “Breast composition”)			1	MC	At least one of row 1 or 2 shall be present	DCID (6000) Overall Breast		
													SRT	F-01711	Almost entirely fat
													SRT	F-01712	Scattered fibroglandular densities
													SRT	F-01713	Heterogeneously dense
													SRT	F-01714	Extremely dense
TID 4007 - 2	>>					NUM	EV (111046, DCM, “Percent Fibroglandular Tissue”)			1	MC	At least one of row 1 or 2 shall be present	UNITS = EV (%, UCUM, “Percent”) Value = 0 – 100		
TID 10003 - 21	>>				CONTAINS	TEXT	EV (121106, DCM, “Comment”)			1	U				
TID 10003 - 22	>>				CONTAINS	INCLUDE	DTID (1020) Person Participant			1-n	U		$PersonProcedureRole = EV (113851, DCM, “Irradiation Administering”)		
TID 1020 - 1	>>	TID (10003)	TID(1020)			PNAME	EV (113870,DCM, “Person Name”)			1	M				
TID 1020 - 2	>>>				HAS PROPERTIES	CODE	EV (113875,DCM, “Person Role in			1	M		$PersonProcedureRole		
TID 1020 - 3	>>>				HAS PROPERTIES	TEXT	EV (113871,DCM, ”Person ID”)			1	U				
TID 1020 - 4	>>>				HAS PROPERTIES	TEXT	EV (113872,DCM, ”Person ID Issuer”)			1	U				
TID 1020 - 5	>>>				HAS PROPERTIES	TEXT	EV (113873,DCM, “Organization Name”)			1	U				
TID 1020 - 6	>>>				HAS PROPERTIES	CODE	EV (113874,DCM, “Person Role in Organization”)			1	U		BCID (7452) Organizational Roles		
													DCM	121081	Physician
													DCM	121082	Nurse
													DCM	121083	Technologist
													DCM	121084	Radiographer
													DCM	121085	Intern
													DCM	121086	Resident
													DCM	121087	Registrar
													DCM	121088	Fellow
													DCM	121089	Attending [Consultant]
													DCM	121090	Scrub nurse
													DCM	121091	Surgeon
													DCM	121092	Sonologist
													DCM	121093	Sonographer
													DCM	121105	Radiation Physicist
TID 10003 - 23	>>				CONTAINS	INCLUDE	DTID (10003a) Irradiation Event X-Ray Detector Data			1	MC	IFF TID (10001) Row 7 is absent or has a value of (R-0038D, SRT, “Yes”)			
TID 10003a - 1	>>					NUM	EV (113845, DCM, “Exposure Index”)			1	MC	IF the value is displayable to the X-ray	Units = (1,UCUM, “no units”)		

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Row	NL				Rel with Parent	VT	Concept Name			VM	Re	Condition	Value Set Constraint		
							Coding Scheme Designator (0008,0102)	Code Vaue (0008,0100)	Code Meaning (0008,0104)				Coding Scheme Designator (0008,0102)	Code Vaue (0008,0100)	Code Meaning (0008,0104)
TID 10003a - 2	>>		TID(10003a)			NUM	EV (113846, DCM, “Target Exposure Index”)			1	MC	IF the value is displayable to the X-ray system operator.	Units = (1,UCUM, “no units”)		
TID 10003a - 3	>>					NUM	EV (113847, DCM, “Deviation Index”)			1	MC	IF the value is displayable to the X-ray system operator.	Units = (1,UCUM, “no units”)		
TID 10003a - 4	>>					INCLUDE	DTID (1021) Device Participant			1	U		$DeviceProcedureRole = EV (113942, DCM, “X-Ray Reading Device”)		
TID 1021 - 1	>>			TID(1021)		CODE	EV (113876, DCM, “Device Role in Procedure”)			1	M		$DeviceProcedureRole		
TID 1021 - 2	>>>				HAS PROPERTIES	TEXT	EV (113877, DCM, “Device Name”)			1	U				
TID 1021 - 3	>>>				HAS PROPERTIES	TEXT	EV (113878, DCM, “Device Manufacturer”)			1	M				
TID 1021 - 4	>>>				HAS PROPERTIES	TEXT	EV (113879, DCM, “Device Model Name”)			1	M				
TID 1021 - 5	>>>				HAS PROPERTIES	TEXT	EV (113880, DCM, “Device Serial Number”)			1	M				
TID 1021 - 6	>>>				HAS PROPERTIES	UIDREF	EV (121012,DCM, “Device Observer UID”)			1	M				
TID 10003 - 24	>>				CONTAINS	INCLUDE	DTID (10003b) Irradiation Event X-Ray Source Data			1	MC	IFF TID (10001) Row 8 is absent or has a value of (R-0038D, SRT, “Yes”)			
TID 10003b - 1	>>					NUM	EV (113738, DCM, “Dose (RP)”)			1	MC	IF TID (10001) Row 2 = (113704, DCM, “Projection X-Ray”) AND any of the values of TID (10001) Row 14 are not (113858, DCM, “MPPS Content”)	Units = EV (Gy, UCUM, “Gy”)		
TID 10003b - 2	>>					TEXXT	EV (113780, DCM, “Reference Point Definition”)			1	MC	IF Row 1 is present and Row 3 is not present			
TID 10003b - 3	>>					CODE	EV (113780, DCM, “Reference Point Definition”)			1	MC	IF Row 1 is present and Row 2 is not present	DCID (10025) Radiation Dose Reference		
													DCM	113860	15cm from Isocenter toward Source
													DCM	113861	30cm in Front of Image Input Surface
													DCM	113862	1cm above Tabletop
													DCM	113863	30cm above Tabletop
													DCM	113864	15cm from Table
													DCM	113865	Entrance exposure to a 4.2 cm breast thickness
													DCM	113941	In Detector Plane
TID 10003b - 3b	>>					NUM	EV (111631, DCM, “Average Glandular Dose”)			1	MC	IFF TID (10001) Row 2 = (P5-40010, SRT, “Mammography”)	Units = EV (dGy, UCUM, “dGy”		
TID 10003b - 4	>>					CODE	EV (113732, DCM, “Fluoro Mode”)			1	UC	IFF TID (10003) Row 4 value = (P5-06000, SRT, “Fluoroscopy”)	DCID (10004) Fluoro Modes		
													DCM	113620	Plane A
													DCM	113621	Plane B
													DCM	113622	Single Plane
													DCM	113890	All Planes
TID 10003b - 5	>>					NUM	EV (113791, DCM, “Pulse Rate”)			1	MC	IFF Row 4 value = (113631, DCM, “Pulsed”)	Units = EV ({pulse}/s, UCUM, “pulse/s”)		
TID 10003b - 6	>>					NUM	EV (113768, DCM, “Number of Pulses”)			1	MC	IF Row 4 is not present or Row 4 is present and equals (113631, DCM, “Pulsed”)	Units = EV (1, UCUM, “no units”)		
TID 10003b - 7	>>>				HAS CONCEPT MOD	CODE	EV (121401, DCM, “Derivation”)			1	MC	IFF count of pulses in Row 6 is estimated	in Row 6 is estimated EV (R-10260, SRT, “Estimated”)		
TID 10003b - 8	>>					NUM	EV (113793, DCM, “Pulse Width”)			1-n	U		Units = EV (ms, UCUM, “ms”)		
TID 10003b - 9	>>					NUM	EV (113742, DCM, “Irradiation Duration”)			1	U		Units = EV (s, UCUM, “s”)		
TID 10003b - 10	>>					NUM	EV (113733, DCM, “KVP”)			1-n	MC		Units = EV (kV, UCUM, “kV”)		
TID 10003b - 11	>>					NUM	EV (113734, DCM, “X-Ray Tube Current”)			1-n	MC	IF Row 14 is not present	Units = EV (mA, UCUM, “mA”)		
TID 10003b - 12	>>					NUM	EV (113767, DCM, “Average X-Ray Tube			1	U		Units = EV (mA, UCUM, “mA”)		
TID 10003b - 13	>>					NUM	EV (113824, DCM, “Exposure Time”)			1	MC	IF Row 14 is not present	Units = EV (ms, UCUM, “ms”)		
TID 10003b - 14	>>					NUM	EV (113736, DCM, “Exposure”)			1-n	MC	IF Row 11 and 13 are not present	Units = EV (uAs, UCUM, “uAs”)		
TID 10003b - 15	>>					NUM	EV (113766, DCM, “Focal Spot Size”)			1	U		Units = EV (mm, UCUM, “mm”)		
TID 10003b - 16	>>		TID(10003b)			CODE	EV (111632, DCM, “Anode Target Material”			1	U		DCID (10016) Anode Target Material		
													SRT	C-150F9	Molybdenum or Molybdenum compound
													SRT	C-167F9	Rhodium or Rhodium compound
													SRT	C-164F9	Tungsten or Tungsten compound
TID 10003b - 17	>>					CONTAINER	EV (113771, DCM, “X-Ray Filters”)			1-n	U				
TID 10003b - 18	>>>				CONTAINS	CODE	EV (113772, DCM, “X-Ray Filter Type”)			1	U		DCID (10007) X-Ray Filter Types		
													DCM	113650	Strip filter
													DCM	113651	Wedge filter
													DCM	113652	Butterfly filter
													DCM	111609	No Filter
TID 10003b - 19	>>>				CONTAINS	CODE	EV (113757, DCM, “X-Ray Filter Material”)			1	U		DCID (10006) X-Ray Filter Materials		
													SRT	C-150F9	Molybdenum or Molybdenum compound
													SRT	C-120F9	Aluminum or Aluminum compound
													SRT	C-127F9	Copper or Copper
													SRT	C-167F9	Rhodium or Rhodium compound
													SRT	C-1190E	Niobium or Niobium compound
													SRT	C-1190F	Europium or Europium compound
													SRT	C-132F9	Lead or Lead compound
													SRT	C-156F9	Tantalum or Tantalum compound
													SRT	C-137F9	Silver or Silver compound
TID 10003b - 20	>>>				CONTAINS	NUM	EV (113758, DCM, “X-Ray Filter Thickness Minimum”)			1	U		Units = EV (mm, UCUM, “mm”)		
TID 10003b - 21	>>>				CONTAINS	NUM	EV (113773, DCM, “X-Ray Filter Thickness Maximum”)			1	U		Units = EV (mm, UCUM, “mm”)		

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Row	NL	Rel with Parent	VT	Concept Name			VM	Re	Condition	Value Set Constraint		
				Coding Scheme Designator (0008,0102)	Code Vaue (0008,0100)	Code Meaning (0008,0104)				Coding Scheme Designator (0008,0102)	Code Vaue (0008,0100)	Code Meaning (0008,0104)
TID 10003b - 22	>>		NUM	EV (113790, DCM, “Collimated Field Area”)			1	U		Units = EV (m2, UCUM, “m^2”)		
TID 10003b - 23	>>		CODE	EV (111635,DCM, “X-Ray Grid”)			1-n	U		DCID (10017) X-Ray Grid		
										DCM	111641	Fixed grid
										DCM	111642	Focused grid
										DCM	111643	Reciprocating grid
										DCM	111644	Parallel grid
										DCM	111645	Crossed grid
										DCM	111646	No grid
TID 10003b - 24	>>		INCLUDE	DTID (1021) Device Participant			1	M		$DeviceProcedureRole = EV (113859, DCM,		
TID 1021 - 1	>>		CODE	EV (113876, DCM, “Device Role in Procedure”)			1	M		$DeviceProcedureRole		
TID 1021 - 2	>>>	HAS PROPERTIES	TEXT	EV (113877, DCM, “Device Name”)			1	U				
TID 1021 - 3	>>>	HAS PROPERTIES	TEXT	EV (113878, DCM, “Device Manufacturer”)			1	M				
TID 1021 - 4	>>>	HAS PROPERTIES	TEXT	EV (113879, DCM, “Device Model Name”)			1	M				
TID 1021 - 5	>>>	HAS PROPERTIES	TEXT	EV (113880, DCM, “Device Serial Number”)			1	M				
TID 1021 - 6	>>>	HAS PROPERTIES	UIDREF	EV (121012, DCM, “Device Observer UID”)			1	M				
TID 10003 - 25	>>	CONTAINS	INCLUDE	DTID (10003c) Irradiation Event X-Ray Mechanical Data			1	MC	IFF TID (10001) Row 9 is absent or has a value of (R-0038D, SRT, “Yes”)			
TID 10003c - 1	>>		CODE	EV (113956, DCM, “CR/DR Mechanical Configuration”)			1	U		DCID (10031) CR/DR Mechanical		
										DCM	113953	Unmounted Detector
										DCM	113952	Table Mount
										DCM	113954	Upright Stand Mount
										DCM	113955	C-Arm Mount
TID 10003c - 2	>>		NUM	EV (112011, DCM, “Positioner Primary Angle”)			1	UC	XOR Row 6	Units = EV (deg, UCUM, “deg”)		
TID 10003c - 3	>>		NUM	EV (112012, DCM, “Positioner Secondary Angle”)			1	UC	XOR Row 6	Units = EV (deg, UCUM, “deg”)		
TID 10003c - 4	>>		NUM	EV (113739, DCM, “Positioner Primary End Angle”			1	UC	IFF TID (10003) Row 4 value = (113613, DCM, “Rotational Acquisition”)	Units = EV (deg, UCUM, “deg”)		
TID 10003c - 5	>>		NUM	EV (113740, DCM, “Positioner Secondary End Angle”			1	UC	IFF TID (10003) Row 4 value = (113613, DCM,	Units = EV (deg, UCUM, “deg”)		
TID 10003c - 6	>>		NUM	EV (113770, DCM, “Column Angulation”)			1	UC	XOR Rows 2,3	Units = EV (deg, UCUM, “deg”)		
TID 10003c - 7	>>		NUM	EV (113754, DCM, “Table Head Tilt Angle”)			1	UC		Units = EV (deg, UCUM, “deg”)		
TID 10003c - 8	>>		NUM	EV (113755, DCM, “Table Horizontal Rotation Angle”)			1	U		Units = EV (deg, UCUM, “deg”)		
TID 10003c - 9	>>		NUM	EV (113756, DCM, “Table Cradle Tilt Angle”)			1	U		Units = EV (deg, UCUM, “deg”)		
TID 10003c - 10	>>		NUM	EV (111633, DCM, “Compression Thickness”)			1	U		Units = (mm, UCUM, “mm”)		
TID 10003c - 11	>>		NUM	DCID (10008) Dose Related Distance Measurements			1-n	U		Units = EV (mm, UCUM, “mm”)		
				DCM	113748	Distance Source to Isocenter						
				DCM	113737	Distance Source to Reference Point						
				DCM	113750	Distance Source to Detector						
				DCM	113751	Table Longitudinal Position						
				DCM	113752	Table Lateral Position						
				DCM	113753	Table Height Position						
				DCM	113792	Distance Source to Table Plane						
TID 10001 - 14	>	CONTAINS	TEXT	EV (121106, DCM, “Comment”)			1	U				
TID 10001 - 15	>	CONTAINS	IMAGE	EV (121342, DCM, “Dose Image”)			1-n	U				
TID 10001 - 16	>	CONTAINS	INCLUDE	DTID (1020) Person Participant			1	U		$PersonProcedureRole=EV (113850, DCM, “Irradiation Authorizing”)		
TID 1020 - 1	>		PNAME	EV (113870,DCM, “Person Name”)			1	M				
TID 1020 - 2	>>	HAS PROPERTIES	CODE	EV (113875,DCM, “Person Role in			1	M		$PersonProcedureRole		
TID 1020 - 3	>>	HAS PROPERTIES	TEXT	EV (113871,DCM, ”Person ID”)			1	U				
TID 1020 - 4	>>	HAS PROPERTIES	TEXT	EV (113872,DCM, ”Person ID Issuer”)			1	U				
TID 1020 - 5	>>	HAS PROPERTIES	TEXT	EV (113873,DCM, “Organization Name”)			1	U				
TID 1020 - 6	>>	HAS PROPERTIES	CODE	EV (113874,DCM, “Person Role in Organization”)			1	U		BCID (7452) Organizational Roles		
										DCM	121081	Physician
										DCM	121082	Nurse
										DCM	121083	Technologist
										DCM	121084	Radiographer
										DCM	121085	Intern
										DCM	121086	Resident
										DCM	121087	Registrar
										DCM	121088	Fellow
										DCM	121089	Attending [Consultant]
										DCM	121090	Scrub nurse
										DCM	121091	Surgeon
										DCM	121092	Sonologist
										DCM	121093	Sonographer
										DCM	121105	Radiation Physicist
TID 10001 - 17	>	CONTAINS	CODE	EV (113854, DCM, “Source of Dose Information”)			1-n	M		DCID (10020) Source of Projection X-Ray Dose Information		
										DCM	113856	Automated Data
										DCM	113857	Manual Entry
										DCM	113858	MPPS Content
										SRT	A-2C090	Dosimeter
										DCM	113866	Copied From Image Attributes
										DCM	113867	Computed From Image Attributes
										DCM	113868	Derived From Human-Readable Reports
										DCM	113940	System Calculated

TID(10003c)

TID(1020)