Digital Imaging and Communications in Medicine (DICOM)

Supplement 216

Second Generation Radiotherapy –

Brachytherapy Radiation Objects

DICOM Standards Committee, Working Group 7, Radiation Therapy

1300 N. 17th Street, Suite 1752

Rosslyn, Virginia 22209 USA

VERSION: Draft – Revision 01
February 12, 2019

Developed pursuant to DICOM Work Item TDB

Table of Contents

Table of Figures

Table of Tables

106

Open Issues and Discussion Points

#	Item
1	
2	
3	
4	
5	
7	
8	
9	
10	

Closed Issues

#	Item

108

Foreword

This Supplement specifies additional IODs necessary to support the new Second Generation Radiotherapy IODs and operations.

Scope and Field of Application

Introduction

This Supplement introduces RT Radiation IODs and RT Radiation Set IODs. A Radiation Set IOD defines a Radiotherapy Treatment Fraction as a collection of instances of RT Radiation IODs. RT Radiation IODs represent different treatment modalities. This Supplement introduces the representation of the C-Arm techniques.

This Supplement is based on the real-world model and specifications defined in Supplement 147. References, definitions etc. not present in this Supplement can be found in Supplement 147.

General Architectural Principles

- Different types of data are encoded in different IODs. This is in contrast to First Generation objects, where different types of data are encoded in a single IOD, such as RT Plan.
- The new IODs are designed to support all current treatment modalities and be extensible for future modalities and new equipment.
- Compatibility with First-Generation IODs: It will be possible for the content of First Generation IODs to be represented in Second Generation IODs. However, information beyond the content of a First Generation SOP Instance will be needed to create a valid Second Generation SOP Instance.
- IODs specific to use cases: Explicit separate IODs have been developed for specific treatment modalities with the concept of RT Radiation IOD – for example, Tomotherapeutic treatments, C-Arm beams, Robotic beams are modeled separately. This allows more stringent conditions to be applied to the presence or absence of Attributes within those IODs, and thereby increases the potential for interoperability.
- Treatment techniques already in use but not yet covered in First Generation (such as robotic therapy and tomotherapy) have been taken into account.

Part 2 Addendum

Add new SOP Classes to PS3.2 Table A.1-2 UID Values:

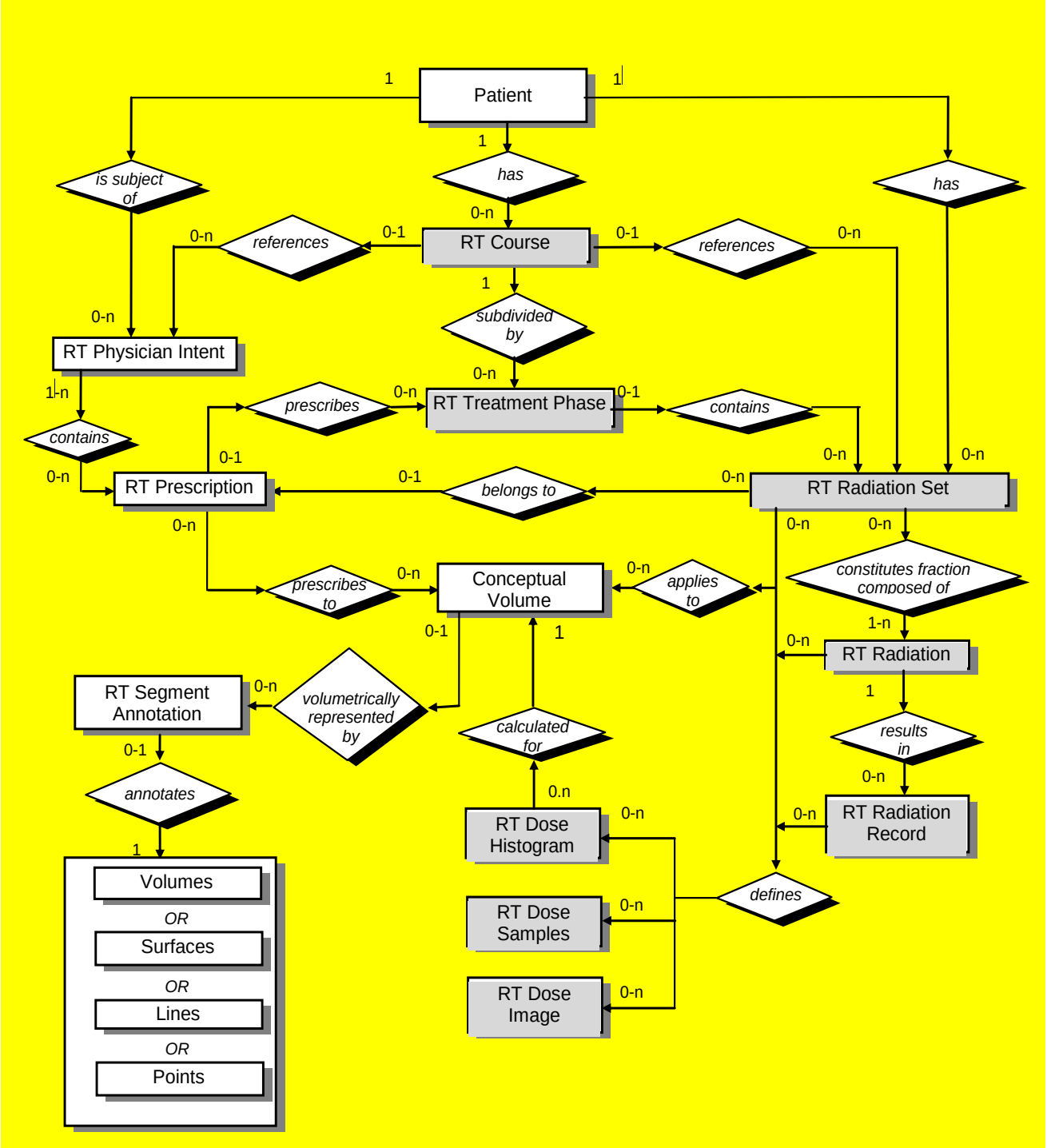
UID Value	UID Name	Category
1.2.840.10008.5.1.4.1.1.481.S216.1	Brachytherapy HDR Radiation Storage	Transfer
1.2.840.10008.5.1.4.1.1.481.S216.2	Brachytherapy LDR Radiation Storage	Transfer
1.2.840.10008.5.1.4.1.1.481.S216.3	Brachytherapy Seeds Storage	Transfer

Part 3 Addendum

7.14 EXTENSION OF THE DICOM MODEL OF THE REAL-WORLD FOR RADIOTHERAPY SECOND GENERATION INFORMATION OBJECTS

For the purpose of RT Second Generation SOP Classes the DICOM Model of the Real-World is described in this section. This subset of the real-world model covers the requirements for transferring information about planned and performed radiotherapeutic treatments and associated data.

Figure 7.14-1 describes the most important elements involved in the radiotherapy domain in DICOM.



Note 1: IODs which contain a representation of Volumes, Surfaces, Lines, Points can be annotated by an RT Segment Annotation.

Note 2: For better readability the diagram only contains the most important relationships, e.g. all objects have a relation to the Patient, but not all of these relationships are part of this diagram.

Figure 7.14-1 DICOM MODEL OF THE REAL WORLD – RADIOTHERAPY

160

Add the following columns in PS3.3 Section A.1.4, Table A.1-1 COMPOSITE INFORMATION
162 **OBJECT MODULES OVERVIEW – RADIOTHERAPY**

IODs Modules	Brachytherapy HDR Radiation Storage	Brachytherapy HDR Radiation Storage	Brachytherapy HDR Radiation Storage
Patient	M	M	M
Clinical Trial Subject	U	U	U
General Study	M	M	M
Patient Study	U	U	U
Clinical Trial Study	U	U	U
General Series	M	M	M
Clinical Trial Series	U	U	U
Enhanced RT Series	M	M	M
General Equipment	M	M	M
Enhanced General Equipment	M	M	M
Frame Of Reference	M	M	M
General Reference Module	M	M	M
…			
Radiotherapy Common Instance	M	M	M
RT Delivery Device Common	M	M	M
RT Radiation Common	M	M	M
Brachytherapy HDR Delivery Device Module	M		
Brachytherapy HDR Beam Module	M		
Brachytherapy LDR Delivery Device Module		M	
Brachytherapy LDR Beam Module		M	
Brachytherapy Seeds Delivery Device Module			M

IODs Modules	**Brachytherapy HDR Radiation Storage**	**Brachytherapy HDR Radiation Storage**	**Brachytherapy HDR Radiation Storage**
Brachytherapy Seeds Module			**M**
…			
Common Instance Reference Module	**M**	**M**	
SOP Common	**M**	**M**	

164

Add the following to PS3.3 Chapter 10 Miscellaneous Macros:

166

Add the following to PS3.3 Annex A:

168 **A.86 RT SECOND GENERATION**

A.86.1 RT Second Generation Objects

170 This section provides a brief description of the IODs of RT Second Generation. Specifically, this description includes:

172 - The Real-World Object which is represented by the IOD
- Information as to the scope of the represented object if appropriate

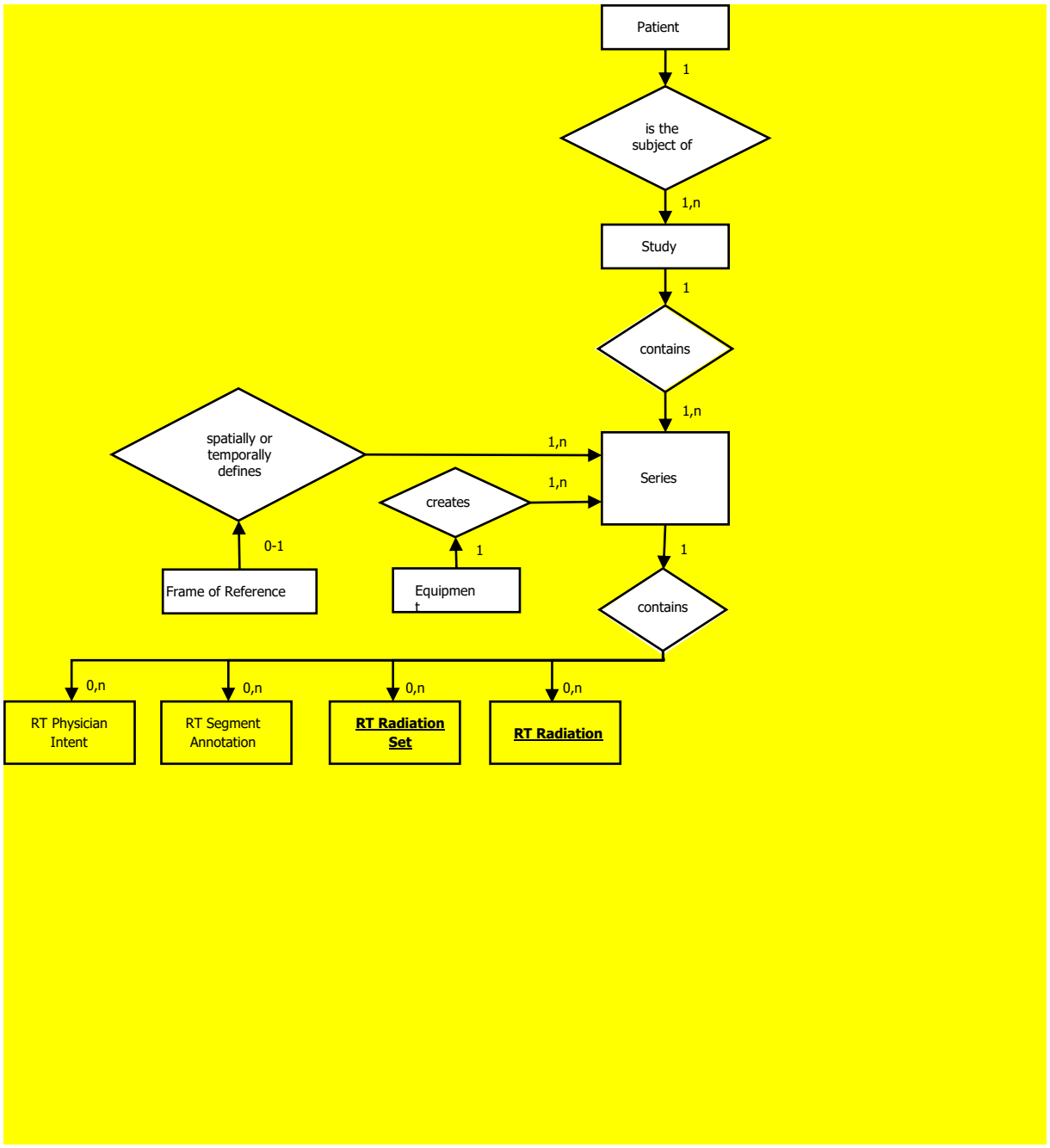
174 **A.86.1.1 RT Second Generation Common Information**

This section provides a description of the Module structure which is shared by the RT Second
176 Generation IODs.

A.86.1.1.1 RT Second Generation Entity-Relationship Model

178 The E-R Model in Figure A.86.1.1.1-1 depicts those components of the DICOM Information Model that are relevant to second-generation RT IODs.

180



182

Figure A.86.1.1.1-1 — RT Second Generation IOD information model

184 **Add the following Section to Annex A:**

A.86.1.a1 Brachytherapy HDR Radiation Information Object Definition

A.86.1.a1.1 Brachytherapy HDR Radiation IOD Description

The Ion Modulated Scanning Radiation IOD describes a radiotherapy treatment on a C-Arm delivery device using ion particles with a modulated scanning technique.

A.86.1.a1.2 Brachytherapy HDR Radiation IOD Entity-Relationship Model

See Figure A.86.1.1.1-1.

A.86.1.a1.3 Brachytherapy HDR Radiation IOD Module Table

Table A.86.1.a1-1
Brachytherapy HDR Radiation IOD Modules

IE	Module	Reference	Usage
Patient	Patient	C.7.1.1	M
	Clinical Trial Subject	C.7.1.3	U
Study	General Study	C.7.2.1	M
	Patient Study	C.7.2.2	U
	Clinical Trial Study	C.7.2.3	U
Series	General Series	C.7.3.1	M
	Clinical Trial Series	C.7.3.2	U
	Enhanced RT Series	C.36.A1	M
Equipment	General Equipment	C.7.5.1	M
	Enhanced General Equipment	C.7.5.2	M
Frame of Reference	Frame of Reference	C.7.4.1	M
RT Radiation	General Reference	C.12.4	M
	RT Delivery Device Common	C.36.E1	M
	RT Radiation Common	C.36.E2	M
	Brachytherapy HDR Delivery Device	C.36.m1	M
	Brachytherapy HDR Beam	C.36.m2	M
	SOP Common	C.12.1	M
	Common Instance Reference	C.12.2	M
	Radiotherapy Common Instance	C.36.A2	M

Note: The Frame of Reference identifies the Patient Coordinate System used to define the geometric setup of the radiation beam with respect to the patient. The relationship of the patient-based coordinates to the Equipment Frame of Reference is specified by a transformation (see 10.A10).

A.86.1.a1.4 Brachytherapy HDR Radiation IOD Constraints

A.86.1.a1.4.1 Modality Attribute

The value of Modality (0008,0060) shall be RTRAD.

A.86.1.a1.4.2 RT Delivery Device Common Module

The Equipment Frame of Reference UID (gggg,51A0) shall be 1.2.840.10008.1.4.RRR.1.

Code Sequence	CID
Treatment Machine Special Mode Sequence (gggg,9C97)	Defined CID SUP175003 “Radiotherapy Treatment Machine Modes”
Radiation Dosimeter Unit Sequence (gggg,5113)	Defined CID SUP175012 “C-Arm Photon-Electron Dosimeter Unit”

204

A.86.1.a1.4.3 RT Radiation Common Module

206 The value of RT Radiation Content Type (gggg,5013) shall not be NONE.

The value of RT Record Flag (gggg,5014) shall be NO.

208 The following code sequences shall have values from the identified CIDs:

Code Sequence	CID
RT Treatment Technique Code Sequence (3010,0080)	Defined CID SUP216011 “Brachytherapy HDR Procedure Techniques”

210 #### A.86.1.a1.4.4 Radiotherapy Common Instance Module

Code Sequence	CID
Author Identification Sequence (3010,0019)	Defined CID for Organizational Role is CID SUP175015 “Radiotherapy Treatment Planning Person Roles”

212 ### A.86.1.a2 Brachytherapy LDR Radiation Information Object Definition

A.86.1.a2.1 Brachytherapy LDR Radiation IOD Description

214 The Ion Modulated Scanning Radiation IOD describes a radiotherapy treatment on a C-Arm delivery device using ion particles with a modulated scanning technique.

216 #### A.86.1.a2.2 Brachytherapy LDR Radiation IOD Entity-Relationship Model

See Figure A.86.1.1.1-1.

218 #### A.86.1.a2.3 Brachytherapy LDR Radiation IOD Module Table

Table A.86.1.a2-1

220 **Brachytherapy LDR Radiation IOD Modules**

IE	Module	Reference	Usage
Patient	Patient	C.7.1.1	M
	Clinical Trial Subject	C.7.1.3	U
Study	General Study	C.7.2.1	M
	Patient Study	C.7.2.2	U
	Clinical Trial Study	C.7.2.3	U
Series	General Series	C.7.3.1	M
	Clinical Trial Series	C.7.3.2	U
	Enhanced RT Series	C.36.A1	M
Equipment	General Equipment	C.7.5.1	M

	Enhanced General Equipment	C.7.5.2	M
Frame of Reference	Frame of Reference	C.7.4.1	M
RT Radiation	General Reference	C.12.4	M
	RT Delivery Device Common	C.36.E1	M
	RT Radiation Common	C.36.E2	M
	Brachytherapy LDR Delivery Device	C.36.m1	M
	Brachytherapy LDR Beam	C.36.m2	M
	SOP Common	C.12.1	M
	Common Instance Reference	C.12.2	M
	Radiotherapy Common Instance	C.36.A2	M

Note: The Frame of Reference identifies the Patient Coordinate System used to define the geometric setup of the radiation beam with respect to the patient. The relationship of the patient-based coordinates to the Equipment Frame of Reference is specified by a transformation (see 10.A10).

A.86.1.a2.4 Brachytherapy LDR Radiation IOD Constraints

A.86.1.a2.4.1 Modality Attribute

The value of Modality (0008,0060) shall be RTRAD.

A.86.1.a2.4.2 RT Delivery Device Common Module

The Equipment Frame of Reference UID (gggg,51A0) shall be 1.2.840.10008.1.4.RRR.1.

Code Sequence	CID
Treatment Machine Special Mode Sequence (gggg,9C97)	Defined CID SUP175003 “Radiotherapy Treatment Machine Modes”
Radiation Dosimeter Unit Sequence (gggg,5113)	Defined CID SUP175012 “C-Arm Photon-Electron Dosimeter Unit”

A.86.1.a2.4.3 RT Radiation Common Module

The value of RT Radiation Content Type (gggg,5013) shall not be NONE.

The value of RT Record Flag (gggg,5014) shall be NO.

The following code sequences shall have values from the identified CIDs:

Code Sequence	CID
RT Treatment Technique Code Sequence (3010,0080)	Defined CID SUP216011 “Brachytherapy LDR Procedure Techniques”

A.86.1.a2.4.4 Radiotherapy Common Instance Module

Code Sequence	CID
Author Identification Sequence (3010,0019)	Defined CID for Organizational Role is CID SUP175015 “Radiotherapy Treatment Planning Person Roles”

A.86.1.a3 Brachytherapy Seeds Information Object Definition

A.86.1.a3.1 Brachytherapy Seeds IOD Description

The Ion Modulated Scanning Radiation IOD describes a radiotherapy treatment on a C-Arm delivery device using ion particles with a modulated scanning technique.

A.86.1.a3.2 Brachytherapy Seeds IOD Entity-Relationship Model

See Figure A.86.1.1.1-1.

A.86.1.a3.3 Brachytherapy Seeds IOD Module Table

Table A.86.1.a3-1
Brachytherapy Seeds IOD Modules

IE	Module	Reference	Usage
Patient	Patient	C.7.1.1	M
	Clinical Trial Subject	C.7.1.3	U
Study	General Study	C.7.2.1	M
	Patient Study	C.7.2.2	U
	Clinical Trial Study	C.7.2.3	U
Series	General Series	C.7.3.1	M
	Clinical Trial Series	C.7.3.2	U
	Enhanced RT Series	C.36.A1	M
Equipment	General Equipment	C.7.5.1	M
	Enhanced General Equipment	C.7.5.2	M
Frame of Reference	Frame of Reference	C.7.4.1	M
RT Radiation	General Reference	C.12.4	M
	RT Delivery Device Common	C.36.E1	M
	RT Radiation Common	C.36.E2	M
	Brachytherapy HDR Delivery Device Module	C.36.m1	M
	Brachytherapy HDR Beam	C.36.m2	M
	SOP Common	C.12.1	M
	Common Instance Reference	C.12.2	M
	Radiotherapy Common Instance	C.36.A2	M

Note: The Frame of Reference identifies the Patient Coordinate System used to define the geometric setup of the radiation beam with respect to the patient. The relationship of the patient-based coordinates to the Equipment Frame of Reference is specified by a transformation (see 10.A10).

A.86.1.a3.4 Brachytherapy Seeds IOD Constraints

A.86.1.a3.4.1 Modality Attribute

The value of Modality (0008,0060) shall be RTRAD.

A.86.1.a3.4.2 RT Delivery Device Common Module

The Equipment Frame of Reference UID (gggg,51A0) shall be 1.2.840.10008.1.4.RRR.1.

Code Sequence	CID
Treatment Machine Special Mode Sequence (gggg,9C97)	Defined CID SUP175003 “Radiotherapy Treatment Machine Modes”
Radiation Dosimeter Unit Sequence (gggg,5113)	Defined CID SUP175012 “C-Arm Photon-Electron Dosimeter Unit”

256

A.86.1.a3.4.3 RT Radiation Common Module

258 The value of RT Radiation Content Type (gggg,5013) shall not be NONE.

The value of RT Record Flag (gggg,5014) shall be NO.

260 The following code sequences shall have values from the identified CIDs:

Code Sequence	CID
RT Treatment Technique Code Sequence (3010,0080)	Defined CID SUP216011 “Brachytherapy HDR Procedure Techniques”

262 #### A.86.1.a3.4.4 Radiotherapy Common Instance Module

Code Sequence	CID
Author Identification Sequence (3010,0019)	Defined CID for Organizational Role is CID SUP175015 “Radiotherapy Treatment Planning Person Roles”

264

266

Add the following to PS3.3 Annex C:

C.36 RT SECOND GENERATION MODULES

The following Attribute Macros and Modules are used by the RT Second Generation IODs.

C.36.1 RT Second Generation Concepts

This section dicusses general concepts used in RT Second Generation Modules.

…

C.36.2 RT Second Generation Macros

C.36.2.m RT Second Generation Device Macros

C.36.2.m.x1 X1 Macro

Table C.36.2.m.x1-1
X1 Macro Atributes

Attribute Name	Tag	Type	Description
Number of Sources	(gggg,TODO)	1	Number of Sources in the Sources Definition Sequence (gggg,TODO).
Sources Definition Sequence	(gggg,TODO)	1C	Sources… The number of Items included in this Sequence shall equal the value of Number of Sources (gggg,TODO). Required if the Number of Sources (gggg,TODO) has a non-zero value.
>Include Table C.36.2.m.3-1 "RT Accessory Device Identification Macro Attributes"			*Defined CID SUPnn4002 "TODO".*
>			

C.36.2.m.x2 X2 Macro

Table C.36.2.m.x2-1
X2 Macro Atributes

Attribute Name	Tag	Type	Description
Number of X2	(gggg,TODO)	1	Number of X2 in the X2 Definition Sequence (gggg,TODO).
X2 Definition Sequence	(gggg,TODO)	1C	X2... The number of Items included in this Sequence shall equal the value of Number of X2 (gggg,TODO). Required if the Number of X2 (gggg,TODO) has a non-zero value.
>			

Attribute Name	Tag	Type	Description

288

C.36.m1 Brachytherapy HDR Delivery Device Module

290 *The following is an excerpt from C-Arm for illustration. The content has to be replaced by applicable Brachytherapy content.*

292 The C-Arm Photon-Electron Module defines constant C-Arm-specific parameters pertaining to the physical device used to deliver external ion beams using modulated scanning techniques.

294 **Table C.36.m1-1**
Brachytherapy HDR Delivery Device Module Attributes

Attribute Name	Tag	Type	Description
Virtual Source-Axis Distances	(300A,030A)	1	Distance (in mm) from virtual source position to gantry rotation axis or nominal isocenter position (fixed beam-lines) of the equipment to be used for beam delivery. Specified by a numeric pair - the VSAD in the IEC Gantry X direction followed by the VSAD in the IEC Gantry Y direction. The VSAD is commonly used for designing apertures in contrast to the effective source-axis-distance (ESAD) that is commonly used with the inverse square law for calculating the dose decrease with distance. See Section C.8.8.25.4.
Scanning Type Code (TODO)			
Include Table C.36.2.m.7-1 "Radiation Generation Mode Macro Attributes"			*Defined CID for Radiation Type Code Sequence (gggg,51C4) is CID 9526 "Ion Therapy Particle".* *Defined CID for Energy Unit Code Sequence (gggg,51C9) is CID SUPnn4001 "Energy Unit for Particle Therapy".* *No baseline CID defined for Radiation Fluence Modifier Code Sequence (gggg,51C8).*
Include Table C.36.2.m.8-1 "RT Beam Limiting Device Definition Macro Attributes"			*Defined CID for included 'RT Accessory Device Identification Macro' is CID SUP175001 "Beam Limiting Device Types".*
Include Table C.36.2.m.12-1 "Compensators Definition Macro Attributes"			
Include Table C.36.2.m.13-1 "Blocks Definition Macro Attributes"			
Include Table C.36.2.m.14-1 "RT Accessory Holders Definition Macro Attributes"			

Attribute Name	Tag	Type	Description
Include Table C.36.2.m.15-1 "General Accessories Definition Macro Attributes"			
Include Table C.36.2.m.16-1 "Boluses Definition Macro Attributes"			
Include Table C.36.2.m-x1-1 "X1 Macro Attributes"			

296

C.36.m1.1 Brachytherapy HDR Delivery Device Attribute Description

298

C.36.m2 Brachytherapy HDR Beam Module

300 *The following is an excerpt from C-Arm for illustration. The content has to be replaced by applicable Brachytherapy content.*

302 The C-Arm Photon-Electron Beam Module specifies how a C-Arm photon or electron treatment beam is to be delivered.

304 **Table C.36.m2-1**
Brachytherapy HDR Beam Module Attributes

Attribute Name	Tag	Type	Description
C-Arm Photon-Electron Control Point Sequence	(gggg,9C00)	1	Control Points used to model the beam delivery. Two or more Items shall be included in this Sequence.
>Include Table C.36.2.m.x2-1 "X2 Macro Attributes"			*Defined CID SUP175010 "C-Arm Photon-Electron Delivery Dose Rate Unit"*
>Referenced Radiation Generation Mode Index	(gggg,9124)	1C	Radiation Generation Mode Index (gggg,9113) in the Radiation Generation Mode Sequence (gggg,51C0) in this IOD. Required if the conditions in Section C.36.2.m.5.1.1 are satisfied.
>Include Table C.36.2.m.9-1 "RT Beam Limiting Device Opening Macro Attributes"			
>Source Roll Continuous Angle	(gggg,51B5)	1C	Continuous gantry roll angle in degrees of the radiation source at the Control Point with respect to the Equipment Frame of Reference. See C.36.G2.1.1, C.36.1.8 and C.36.E1.1.1. Required if the conditions in Section C.36.2.m.5.1.1 are satisfied.
>RT Beam Limiting Device Continuous Angle	(gggg,51B4)	1C	Angle in degrees of the Beam Modifier Coordinate System about the Z-axis relative to the parent coordinate system. See C.36.1.8 and C.36.G2.1.2. Required if the conditions in Section C.36.2.m.5.1.1 are satisfied.

Attribute Name	Tag	Type	Description
>Source to Patient Surface Distance	(gggg,9C63)	2C	Source to Patient Surface (skin) distance in mm. Required if the conditions in Section C.36.2.m.5.1.1 are satisfied.
>Source to External Contour Distance	(gggg,9C62)	2C	Source to External Contour distance in mm including devices associated with the patient anatomy model. For dosimetric purposes this value may differ from the Source to Surface Distance (300A,0130). See C.36.C2.1.4. Required if the conditions in Section C.36.2.m.5.1.1 are satisfied.

306

C.36.m2.1 Brachytherapy HDR Beam Attribute Description

308 #### C.36.m2.1.1 Source Roll Continuous Angle

For an Equipment Frame of Reference UID (gggg,51A0) 1.2.840.10008.1.4.RRR.1 the source roll
310 angle is the rotation of the IEC 61217 GANTRY coordinate system about the Y-axis of the IEC 61217 FIXED coordinate system.

312 #### C.36.m2.1.2 RT Beam Limiting Device Continuous Angle

For an Equipment Frame of Reference UID (gggg,51A0) 1.2.840.10008.1.4.RRR.1 the RT Beam
314 Limiting Device Continuous Angle (gggg,51B4) is the rotation of the IEC 61217 BEAM LIMITING DEVICE system about the Z-axis of the IEC 61217 GANTRY system.

316 ### C.36.m3 Brachytherapy LDR Delivery Device Module

Table C.36.m3-1
318 **Brachytherapy LDR Delivery Device Module Attributes**

Attribute Name	Tag	Type	Description

320 ### C.36.m4 Brachytherapy LDR Beam Module

Table C.36.m4-1
322 **Brachytherapy LDR Beam Module Attributes**

Attribute Name	Tag	Type	Description

324 ### C.36.m5 Brachytherapy Seeds Delivery Device Module

Table C.36.m5-1
326 **Brachytherapy Seeds Delivery Device Module Attributes**

Attribute Name	Tag		Type	Description

C.36.m6 Brachytherapy Seeds Module

Table C.36.m6-1
Brachytherapy Seeds Module Attributes

Attribute Name	Tag	Type	Description

Part 4 Addendum

Add the following to PS3.4, Appendix B.5, Table B.5-1

SOP Class Name	SOP Class UID	IOD Spec (defined in PS 3.3)
Brachytherapy HDR Radiation Storage	**1.2.840.10008.5.1.4.1.1.481.S216.1**	**Brachytherapy HDR Radiation IOD**
Brachytherapy LDR Radiation Storage	**1.2.840.10008.5.1.4.1.1.481.S216.2**	**Brachytherapy LDR Radiation IOD**
Brachytherapy Seeds Storage	**1.2.840.10008.5.1.4.1.1.481.S216.3**	**Brachytherapy Seeds IOD**

340 **Part 6 Addendum**

Add the following data elements to PS3.6:

342

Editorial Note:

344 *Use Range (gggg,A800) – (gggg,AFFF).*

346 **6 REGISTRY OF DICOM DATA ELEMENTS**

(gggg,A800)
(gggg,A801)

348

Add the following to PS3.6 Annex A:

ANNEX A REGISTRY OF DICOM UNIQUE IDENTIFIERS (UID) (NORMATIVE)

Table A-1 UID Values

UID Value	UID NAME	UID TYPE	Part
1.2.840.10008.5.1.4.1.1.481.S216.1	Brachytherapy HDR Radiation Storage	SOP Class	PS3.4
1.2.840.10008.5.1.4.1.1.481.S216.2	Brachytherapy LDR Radiation Storage	SOP Class	PS3.4
1.2.840.10008.5.1.4.1.1.481.S216.3	Brachytherapy Seeds Storage	SOP Class	PS3.4

Table A-3 Context Group UID Values

Context UID	Context Identifier	Context Group Name
1.2.840.10008.6.1.S216.001	SUP216001	<Title>
1.2.840.10008.6.1.S216.011	SUP216011	Brachytherapy HDR Procedure Technique
1.2.840.10008.6.1.S216.012	SUP216012	Brachytherapy LDR Procedure Technique
1.2.840.10008.6.1.S216.013	SUP216013	Brachytherapy Seeds Procedure Technique

Part 16 Addendum

Add the following new CIDs to PS3.16, Annex B:

CID SUP216001 <TITLE>

Context ID SUP216001

<Title>

Resources: HTML | FHIR JSON | FHIR XML | IHE SVS XML

Type: Extensible

Version: yyyymmdd

UID: 1.2.840.10008.6.1.S216.001

Coding Scheme Designator (0008,0102)	Code Value (0008,0100)	Code Meaning (0008,0104)

CID SUP216011 BRACHYTHERAPY HDR PROCEDURE TECHNIQUE

Context ID SUP216001

Brachytherapy HDR Procedure Technique

Resources: HTML | FHIR JSON | FHIR XML | IHE SVS XML

Type: Extensible

Version: yyyymmdd

UID: 1.2.840.10008.6.1.S216.011

Coding Scheme Designator (0008,0102)	Code Value (0008,0100)	Code Meaning (0008,0104)

CID SUP216012 BRACHYTHERAPY LDR PROCEDURE TECHNIQUE

Context ID SUP216013

Brachytherapy LDR Procedure Technique

Resources: HTML | FHIR JSON | FHIR XML | IHE SVS XML

Type: Extensible

Version: yyyymmdd

UID: 1.2.840.10008.6.1.S216.012

Coding Scheme Designator (0008,0102)	Code Value (0008,0100)	Code Meaning (0008,0104)

CID SUP216013 BRACHYTHERAPY SEEDS PROCEDURE TECHNIQUE

Context ID SUP216013

Brachytherapy Seeds Procedure Technique

Resources: HTML | FHIR JSON | FHIR XML | IHE SVS XML

Type: Extensible

Version: yyyymmdd

UID: 1.2.840.10008.6.1.S216.013

Coding Scheme Designator (0008,0102)	Code Value (0008,0100)	Code Meaning (0008,0104)

Add the following to the table in PS3.16, Annex D:

ANNEX D DICOM CONTROLLED TERMINOLOGY DEFINITIONS (NORMATIVE)

Code Value	Code Meaning	Definition	Notes
S216001			
S216002			
S216003			