

## DICOM Correction Proposal

STATUS	Assigned
Date of Last Update	2017/03/24
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Correction Number	CP-1660
Log Summary:	Dose Measurement Type in RTSTRUCT
Name of Standard	PS 3 2016c
Rationale for Correction:	<p>The current list of Defined Terms for RT ROI Interpreted Type (3006,00A4) already covers some “artificial” types that are not anatomy-specific but rather relate to setup or dose optimization. It is proposed to add a new term to this list that describes artificial ROIs that stem from the area of QA procedures.</p> <p>In addition, new CIDs are proposed to describe contours in more detail</p>
Correction Wording:	

*In PS 3.3, Section C.8.8.8 RT ROI Observations Module, Table C.8-44, make the following changes:*

**Table C.8-44 RT ROI OBSERVATIONS MODULE ATTRIBUTES**

Attribute Name	Tag	Type	Attribute Description
RT ROI Observations Sequence	(3006,0080)	1	Sequence of observations related to ROIs defined in the ROI Module. One or more Items shall be included in this Sequence.
>Segmented Property Category Code Sequence	(0062,0003)	3	Sequence defining the general category of the property this ROI represents. Only a single Item is permitted in this Sequence. See Note 1.
>>Include Table 8.8-1 “Code Sequence Macro Attributes”			No Baseline CID is defined.
>RT ROI Identification Code Sequence	(3006,0086)	3	Sequence containing Code used to identify ROI. Only a single Item is permitted in this Sequence. See Note 2.
>>Include Table 8.8-1 “Code Sequence Macro Attributes”			No Baseline CID is defined.
>...			
>RT ROI Interpreted Type	(3006,00A4)	2	Type of ROI. See Section C.8.8.8.1.  Defined Terms: EXTERNAL

			<p>external patient contour</p> <p><b>PTV</b>  Planning Target Volume (as defined in ICRU50)</p> <p><b>CTV</b>  Clinical Target Volume (as defined in ICRU50)</p> <p><b>GTV</b>  Gross Tumor Volume (as defined in ICRU50)</p> <p><b>TREATED_VOLUME</b>  Treated Volume (as defined in ICRU50)</p> <p><b>IRRAD_VOLUME</b>  Irradiated Volume (as defined in ICRU50)</p> <p><b>BOLUS</b>  patient bolus to be used for external beam therapy</p> <p><b>AVOIDANCE</b>  region in which dose is to be minimized</p> <p><b>ORGAN</b>  patient organ</p> <p><b>MARKER</b>  patient marker or marker on a localizer</p> <p><b>REGISTRATION</b>  registration ROI</p> <p><b>ISOCENTER</b>  treatment isocenter to be used for external beam therapy</p> <p><b>CONTRAST_AGENT</b>  volume into which a contrast agent has been injected</p> <p><b>CAVITY</b>  patient anatomical cavity</p> <p><b>BRACHY_CHANNEL</b>  brachytherapy channel</p> <p><b>BRACHY_ACCESSORY</b>  brachytherapy accessory device</p> <p><b>BRACHY_SRC_APP</b>  brachytherapy source applicator</p> <p><b>BRACHY_CHNL_SHLD</b>  brachytherapy channel shield</p> <p><b>SUPPORT</b>  external patient support device</p> <p><b>FIXATION</b>  external patient fixation or immobilization device</p> <p><b>DOSE_REGION</b>  ROI to be used as a dose reference</p> <p><b>CONTROL</b>  ROI to be used in control of dose optimization and calculation</p> <p><b><u>DOSE MEASUREMENT</u></b></p>
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			<u>ROI representing a dose measurement device, such as a chamber or TLD.</u>

Add to PS 3.16 Annex B

**CID NNNN DOSE DATA SOURCE MEASUREMENT DEFINITION**

**Context ID NNNN**

**Dose Data Source Measurement Definition**

**Type: Extensible**

**Version: yyyyymmdd**

<b>Coding Scheme Designator (0008,0102)</b>	<b>Code Value (0008,0100)</b>	<b>Code Meaning (0008,0104)</b>
99SUP147	YYYY1	Film
99SUP147	YYYY2	3D Gel
99SUP147	YYYY3	Diode Array
99SUP147	YYYY4	Ion Chamber Array
99SUP147	YYYY5	TLD
99SUP147	YYYY6	Diode
99SUP147	YYYY7	Liquid Ion Chamber
99SUP147	YYYY8	MOSFET
99SUP147	YYYY9	OSLD
99SUP147	YYYY10	Ion Chamber
99SUP147	YYYY11	EPID
99SUP147	YYYY12	Diamond Detector

Add to PS3.16, Annex D:

YYYY1	Film	A sheet of plastic coated with light sensitive material which is chemically changed by the exposure to ionizing radiation or light.	
YYYY2	3D Gel	A volume of gel that changes physical characteristics when exposed to ionizing radiation.	
YYYY3	Diode Array	A number of semiconductor devices that generates current when exposed to ionizing radiation. The devices are arranged systematically in a regular pattern.	

YYYY4	Ion Chamber Array	A number of devices that measures charge from the ions produced in a medium when exposed to ionizing radiation. The devices are arranged systematically in a regular pattern.	
YYYY5	TLD	Thermoluminescent dosimeter. It is a crystal that when heated, emits visible light in proportion to the amount of ionizing radiation it has been exposed to.	
YYYY6	Diode	A semiconductor device that generates current when exposed to ionizing radiation.	
YYYY7	Liquid Ion Chamber	An ion chamber that uses a liquid as the medium.	
YYYY8	MOSFET	Metal Oxide Semiconductor Field Effect Transistor. The transistor experiences a change in voltage upon irradiation with ionizing radiation.	
YYYY9	OSLD	Optically Stimulated Luminescent Dosimeter. It is a crystal that when exposed to green light, emits blue light in proportion to the amount of ionizing radiation it has been exposed to.	
YYYY10	Ion Chamber	A device that measures charge from the ions produced in a medium when exposed to ionizing radiation.	
YYYY11	EPID	Electronic Portal Imaging Device. This device is able to record a digital image during treatment delivery on a teletherapy machine. It may consist of the image of an array of ion chambers, a CCD video camera or flat panel detectors.	
YYYY12	Diamond Detector	A semiconductor detector that uses diamond as the medium.	