

DICOM Correction Item

Correction Number CP-1011	
Log Summary: RT Beams Recording Clarifications	
Type of Modification Clarification	Name of Standard PS 3 2009
Rationale for Correction: There are some uncertainties on tags for recording treatment delivery at the beam (not control point) level. This CP removes those uncertainties, addressing it in the (conventional) RT Beams Session Record module. The same issues exist for the RT Ion Beams Session Record Module. When creating RT Ion Beams Treatment Records, implementers have to ensure that details of meterset recording are handled correctly in detail. There is a general agreement that the design principles for Control Points in RT Plan IOD / RT Beams Treatment Record IOD apply in the same way for Ion IODs. However, especially in recording, the analogy may not be obvious to every implementer. Therefore, for the delivered meterset recording, an explicit reference to the corresponding section for conventional records is indicated.	
Sections of documents affected PS 3.3	
Correction Wording:	

In PS 3.3, add the following text in Section C.8.8.21.2 (RT Beams Session Record Module)

C.8.8.21.2 Specified and Delivered Meterset Values

C.8.8.21.2.1 Beam Level

The value of Specified Primary Meterset (3008,0032) shall be the value specified by the Beam Meterset (300A,0086) in the corresponding Fraction Group of the referenced RT Plan. The referenced RT Plan is found in the Referenced RT Plan Sequence (300C,0002), and within this plan the Fraction Group is found using the Referenced Fraction Group Number (300C,0022) in this module. The Beam is found in the referenced RT Plan using the Referenced Beam Number (300C,0006) in the same item of the Treatment Session Beam Sequence (3008,0020) as the Specified Primary Meterset (3008,0032).

The value of Delivered Primary Meterset (3008,0036) shall be the accumulated value of the delivered meterset across all Control Points, which is recorded in this item of the Treatment Session Beam Sequence (3008,0020).

Note that, for example, when a partial treatment has occurred and resumption(s) have been delivered which complete delivery of all control points remaining, the sum of the Delivered Primary Meterset (3008,0036) values in all RT Beams Session Records for the beam in question and the fraction being treated will match the specified meterset for the whole fraction.

C.8.8.21.2.2 Control Point Level

Specified Meterset (3008,0042) contains the MU as specified in the corresponding RT Plan at a given control point.

Delivered Meterset (3008,0044) shall contain one of the following three values:

(...)

In PS 3.3, change the following text in Section C.8.8.21 (RT Beams Session Record Module)

Attribute Name	Tag	Type	Attribute Description
>>Treatment Control Point Date	(3008,0024)	1	Date administration of treatment beam began. <u>Date when the delivery of radiation at this control point began. For the final control point this shall be the Date when the previous control point ended.</u>
>>Treatment Control Point Time	(3008,0025)	1	Time administration of treatment beam began. <u>Time when the delivery of radiation at this control point began. For the final control point this shall be the Time when the previous control point ended.</u>

In PS 3.3, change the following text in Section C.8.8.22 (RT Brachy Session Record Module)

Attribute Name	Tag	Type	Attribute Description
>>Treatment Control Point Date	(3008,0024)	1	Date administration of treatment beam began. <u>Date when the delivery of radiation at this control point began. For the final control point this shall be the Date when the previous control point ended.</u>
>>Treatment Control Point Time	(3008,0025)	1	Time administration of treatment beam began. <u>Time when the delivery of radiation at this control point began. For the final control point this shall be the Time when the previous control point ended.</u>

In PS 3.3, change the following text in Section C.8.8.26 (RT Ion Beams Session Record Module)

Attribute Name	Tag	Type	Attribute Description
>>Treatment Control Point Date	(3008,0024)	1	Date administration of treatment beam began. <u>Date when the delivery of radiation at this control point began. For the final control point this shall be the Date when the previous control point ended.</u>
>>Treatment Control Point Time	(3008,0025)	1	Time administration of treatment beam began. <u>Time when the delivery of radiation at this control point began. For the final control point this shall be the Time when the previous control point ended.</u>

In PS 3.3, add the following section after Section C.8.8.26 (RT Ion Beams Session Record Module), and reference it from Table C.8.8.26-1:

Attribute Name	Tag	Type	Attribute Description
>Treatment Verification Status	(3008,002C)	2	Conditions under which treatment was verified by a verification system. Enumerated Values: VERIFIED = treatment verified VERIFIED_OVR = treatment verified with at least one out-of-range value overridden NOT_VERIFIED = treatment verified manually
>Specified Primary Meterset	(3008,0032)	3	Desired machine setting of primary meterset in units specified by Primary Dosimeter Unit (300A,00B3). See C.8.8.26.1.
>Specified Secondary Meterset	(3008,0033)	3	Desired machine setting of secondary meterset. See C.8.8.26.1.
>Delivered Primary Meterset	(3008,0036)	3	Machine setting actually delivered as recorded by primary meterset in units specified by Primary Dosimeter Unit (300A,00B3) See C.8.8.26.1.
>Delivered Secondary Meterset	(3008,0037)	3	Machine setting actually delivered as recorded by secondary meterset. See C.8.8.26.1.
>Specified Treatment Time	(3008,003A)	3	Treatment Time set (sec).

C.8.8.26.1 Specified and Delivered Meterset Values

Specified and Delivered Meterset values on beam and control point level shall be handled as specified for RT Beams Session records in Section C.8.8.21.2