

DICOM Correction Item

Correction Number CP-553	
Log Summary: RT Corrected Parameters	
Type of Modification Addition	Name of Standard PS 3 2004
<p>Rationale for Correction:</p> <p>In the current standard, there is no way to transfer information related to correction regularly performed on the patient positioner, or other equipment, prior to RT treatment. In their current form, the RT Plan is used as input to the delivery process and the RT Beams Treatment Record is used to capture the treatment session results. The only way to detect corrections in the patient positioner, or other equipment, is by comparing attributes such as couch lateral position before and after treatment. This comparison would be error prone and would not be able to detect whether or not all or part of the correction was intentional.</p> <p>In addition, Information Management Systems offer tools for historical tracking and analysis of corrections in order to evaluate setup procedures.</p> <p>This proposal adds a sequence to explicitly capture the adjusted parameters. New attributes in this proposal are already included in Supplement 102 (Radiotherapy Extensions for Ion Therapy).</p>	
<p>Sections of documents affected:</p> <p>PS 3.3, C.8.8.21 (RT Beams Session Record Module)</p> <p>Section 6 (Registry of DICOM Data Elements)</p>	
<p>Correction Wording:</p> <p><i>In PS 3.3, Section C.8.8.21 (RT Beams Session Record Module), Table C.8-57, add the following attributes in the Control Point Delivery Sequence (3008,0040) after the Table Top Lateral Position (300A,012A):</i></p>	

Attribute Name	Tag	Type	Attribute Description
>Control Point Delivery Sequence	(3008,0040)	1	Introduces sequence of beam control points for current treatment beam. The sequence may contain one or more items. See C.8.8.21.1.
...			
>>Corrected Parameter Sequence	(3008,0068)	3	<u>Introduces a sequence of items describing any corrections made to any attributes prior to delivery of the next control point. The sequence may contain one or more items.</u>
>>>Parameter Sequence Pointer	(3008,0061)	1	<u>Contains the Data Element Tag of the parent sequence containing the attribute that was corrected. The value is limited in scope to the Treatment Session Beam Sequence (3008, 0020) and all nested sequences therein.</u>
>>>Parameter Item Index	(3008,0063)	1	<u>Contains the sequence item index (starting at 1) of the corrected attribute within its parent sequence.</u>
>>>Parameter Pointer	(3008,0065)	1	<u>Contains the Data Element Tag of the attribute which was corrected.</u>
>>>Correction Value	(3008,006A)	1	<u>The value applied that was to value referenced by the Parameter Sequence Pointer (3008,0061), Parameter Item Index (3008,0063) and Parameter Pointer (3008,0065).</u>

In PS 3.6, Section 6, add the following new attributes:

Tag	Name	VR	VM
<u>(3008,0068)</u>	<u>Corrected Parameter Sequence</u>	<u>SQ</u>	<u>1</u>
<u>(3008,0065)</u>	<u>Parameter Pointer</u>	<u>AT</u>	<u>1</u>
<u>(3008,006A)</u>	<u>Correction Value</u>	<u>FL</u>	<u>1</u>