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MINUTES

DICOM WORKING GROUP SEVEN (RADIOTHERAPY)

Meeting Location	Virtual	
Dates and Times	Tuesday, May 30, 2023	9:00 – 13:00 EDT
Presiding Officers	Christof Schadt, Co-Chair Jim Percy, Co-Chair	
Secretary	Shayna Knazik, MITA	

Participants

Company/Organization	Represented by	
AAPM	Walter Bosch	X
AAPM	Bruce Curran	X
Accuray	Bob Pekarek	X
Brainlab	Christof Schadt	X
Elekta	Jim Percy	X
IBA	David Wikler	X
Mevion	Bruce Rakes	X
MITA/DICOM	Shayna Knazik	X
Varian	Kari Jyrkkälä	X

Details

Call to Order at 9:05am EDT

Administrative

- Introductions, identified participants.
- Reviewed NEMA anti-trust rules and DICOM Patent Disclosure Policy
- Reviewed the agenda and revised as needed.

CPs

The status of CPs was reviewed. See also: [WG-07 CP Status List](#)

- [Cp2276 Update Interlock Codes for Ions has been approved by WG-6, changes to be addressed in letter ballot](#)
- [Cp_RT233 “Add source obstruction to Treatment Termination reasons” was added](#)

CPs new to WG-07

cp_RT231 Add Spacer, Device and Resection to RT ROI Interpreted Type

See proposal from Katie White

Discussion of CIDs for entities and roles of implanted devices, as well as pre-operative and post-operative volumes as an alternative to Defined Terms.

cp_RT232 Remove Requirement to use Range Shifter Settings Enumerated Values for devices which do not use specific settings

Proposal by David

- Clarified definitions of ANALOG and BINARY defined terms for Range Shifter Type (300A,0320).
- The wording of Section C.8.8.25.5 is unclear. E.g., the attribute used to encode the range shifter setting is not mentioned. This paragraph is to be reworked.

David to rework section C.8.8.25.5 for the next WG-07 meeting.

cp_RT233 Add source obstruction to Treatment Termination reasons

Proposal by Jim Percy.

Adds code with Code Meaning: “Channel Obstruction” Definition: The brachytherapy channel is obstructed and the treatment in this channel cannot proceed.

Jim to format document with WORD tables.

Ready for reading with WG-06.

cp_RT234 Wording improvements for C.8.8.5.4 and use of Study in RTSS references

Proposed by Jim Percy.

Improves wording for RT Referenced Study Sequence (3006,0012).

Recommended use of Detached Study Management SOP Class (Retired) for SUP Class UID (0008,1150) for a macro that includes multiple SOP Classes.

Jim to format document.

Ready for reading with WG-06.

CPs in Work

cp_RT227 Add reference to Series in UPS Scheduled and Performed Procedure Information Modules

Update from David

It does not seem possible to change the existing Input Information Sequence without breaking existing applications. Proposal to define a new Series Input Information Sequence to encode references at the Series level.

David to prepare the CP with this approach for review by WG-07.

cp_RT229 RT Image Gantry Angle

Update from Jim

Discussion of the definition of Gantry Angle (300A,011E) and confusion between treatment and imaging source angles. Distinguishing between treatment and imaging beams is a persistent issue for setup beams.

This topic is to be revisited briefly next week.

cp_RT230 Add RT Treatment Workflow Information Model of the Real World

Update from David?

CPs with WG-06

CP2220 "CBCT"

After the last discussion with WG-06 this now resulted in a "HU correction reliability" attribute.

Discuss this, update the log summary accordingly and then pitch it again with WG-21, WG-22, and WG-28.

Discussion of the rationale for wanting an indication of CBCT. Use cases include (a) workflow, (b) treatment dose calculation, (c) segmentation, (d) AI image processing, (e) image dose reporting.

Options discussed include the following:

- Proposal to add an HU Calibrated (Type 3) attribute, either categorical or tolerance value? Can this be defined in terms of standard categories for CT accuracy? No obvious categories found in IEC. Can CBCT vendors provide a calibration tolerance value for their equipment?
- Could define a flag that the CT HU values have been validated for RT Dose Calculation. Unfortunately, a negative indication for such a flag may come from a diagnostic CT.
- Could include an Imaging Intent (Patient Setup, ...) attribute
- Currently, CP2220 defines non-standard use of Defined Terms for Scan Options. This approach has been rejected by WG-06. It could be incorporated in an IHE-RO Integration Profile.

C.36.2.4.5 3D RT Cone-Beam Imaging Geometry Macro is already defined in the Standard as part of the Patient Position Instruction (prior art). Suggestion to include a new RT Imaging Acquisition Parameters Sequence (Type 3) that includes the 3D RT Cone-Beam Imaging Geometry Macro. A Device Index must be defined for this macro.

Further discussion regarding the use of this macro with Uli is anticipated next week.

CP2222 Missing Treatment Site Modifier

During review of this CP at the March meeting, the question came up whether the CID 4 Anatomic Region is too broad and therefore will actually impede implementation. Therefore, Walter will present a list of treatment sites which was defined by CodeX/mCode so that WG-07 can discuss whether to adapt the Standard and use a different list instead.

Based on this discussion, it can then also be decided whether just laterality is required as a Treatment Site Modifier or whether CID 2 Anatomic Modifier is to be used.

Decision to update the update the existing CP2222 to refer to CID 244 Laterality.

Christof to start another CP to update other locations in the Standard.

Meeting Adjourned at 12:59pm EDT

Prepared by Walter Bosch

Submitted by Shayna Knazik

Reviewed by Counsel 6/8/2023