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Meeting Minutes

DICOM WORKING GROUP SEVEN (RADIOTHERAPY)

Meeting Location	Online Meeting
Dates and Times	December 13, 2023 9:00am-1:00pm US EST
Presiding Officers	Christof Schadt, Co-Chair Jim Percy, Co-Chair
Secretary	Shayna Knazik, NEMA

Participants

Affiliation	Representative
AAPM	Walter Bosch
AAPM	Bruce Curran
AAPM	Yulong Yan
Accuray	Bob Pekarek
Brainlab	Christof Schadt
Elekta	Jim Percy
IBA	David Wikler
Mevion	Bruce Rakes
NEMA	Shayna Knazik
RaySearch	Marcus Bergman
RaySearch	David Holst
Self	Ulrich Busch
Varian	Kari Jyrkkälä

Topics

Call to Order 13-Dec-2023 at 9:00am ET

Background

1. An ad hoc meeting of WG-07 members was held in November to decide which CPs to take to WG-06.
2. Assigned CPs for Nov have not been reviewed and will be addressed in Jan 2024

Correction Proposals

1. CP2341 (cp_RT227) Add reference to Series in UPS Scheduled and Performed Procedure Information Modules (David Wikler)
 - a. This CP was already in the assigned folder. No changes were indicated. CP is ready for review with WG-06.
2. CP2342 (cp_RT230) Add Clinical Fraction Number to 1st Generation RT Objects (David Wikler)
 - a. Adds Clinical Fraction Number in BDI, (Ion) Beams Session Record, and RT Image.
 - b. Adding Clinical Fraction Number to RT Dose was deferred.
 - c. CP is ready for review with WG-06. No further changes needed.
3. CP2343 (cp_RT231) Add Spacer And Device to RT ROI Interpreted Type (Kaley White)
 - a. Adds Defined Terms and codes and cleans up implanted device codes.
 - b. This CP was already in the assigned folder. No changes were indicated. CP is ready for review with WG-06.
4. CP2374 (cp_RT236) Improve RT equipment mapping for imaging (Christof Schadt)
 - a. Uli Busch outlined the current state of the CP for relating image coordinates to fixed room coordinates for multi-axis CT scanner and treatment device.
 - b. Options for mapping imaging equipment coordinates to treatment delivery device were discussed, including the relationship of imaging isocenter and treatment isocenter.
 - c. Work on this CP to continue at Dec 20th WG-07 meeting.
5. CP2344 (cp_RT239) Update RT Patient Setup Module (Christof Schadt)
 - a. Brief discussion of setup beams. These changes were not included at this time.
 - b. No changes were indicated. CP is ready for review with WG-06.
6. CP2375 (cp_RT240) Add Generic RT Patient Support Position Parameters (Bruce Rake, Stuart Swerdloff)
 - a. Adds parameters and codes to TID to represent chair-based patient support parameter.
 - b. Some parameters may reference indices (no units) rather than positions (mm, deg). The indexed parameters can be added later.
 - c. No substantial changes were indicated. Christof to clean up text. CP is ready for review with WG-06.
7. CP2376 (cp_RT241) Table Top Configuration UID to supplement Table Top positions (Kari Jyrkkälä)
 - a. Improved wording of Attribute Description for Table Top Calibration UID.

- b. This UID is used to identify the couch for which Table Top parameters are calibrated.
 - c. Update title to “Table Top Calibration UID...”
 - d. Kari to include a note clarifying intended usage for the Table Top Calibration UID, with example use case. Updated CP to be reviewed with WG-06.
- 8. CP2345 (cp_RT242) Add Requirement for Selected Frames in Sparse MF Module
 - a. Ready for review. No change needed.
- 9. CP2378 (cp_RT244) Add RT Treatment Technique Code to Beam Sequence (Kari Jyrkkälä)
 - a. The term, “Radiotherapy *Procedure* Technique” is not optimal, but is consistent with existing standard.
 - b. No changes were indicated. CP is ready for review with WG-06.
- 10. CP2379 (cp_RT245) Add new codes for referencing prior dose (Christof Schadt)
 - a. Code to annotate dose derived from prior dose instances and dose which includes weighted prior doses
 - b. Several use cases were discussed: (i) Prior delivered dose, (ii) Multiple treatment modalities/fractionations, (iii) Dose from partial deliveries, (iv) others?
 - c. Added RT Dose Derivation Codes: (i) Composed with radiobiological effects and (ii) Composed with weighting for fractions delivered
 - d. RT Dose Purpose of Reference – no additional codes are needed.
 - e. Dose Type = EFFECTIVE for dose derived as “Composed with radiobiological effects.
 - f. Christof to continue work on this CP.
- 11. CP2373 (cp_RT232) Clarify Range Shifter Type and Settings (David Wikler)
 - a. Clarifies the description of the range-shifter type and settings for range shifter types
 - i. ANALOG (applied thickness of device),
 - ii. BINARY (binary digits encode insertion of slabs of device)
 - b. A third type of machine-specific range shifter is in discussion. Proposal to encode as BINARY, with specification in conformance statement
 - c. CP currently includes Material ID, Range Shifter Material, and Range Shifter Density Attributes.
 - d. Work to continue in Ion subgroup on this CP.
- 12. Cp_RT246
 - a. This CP is in preparation in the Ion sub-group to allow ion species to be specified at the control point level. Adds (i) MIXED_ION to Defined Terms for Radiation Type and (ii) Radiation Mass Number, Radiation Atomic Number, and Radiation Charge State in the Ion Control Point Sequence.
 - b. Work to continue in Ion subgroup on this CP.
- 13. Cp_RTxx Treatment Approval CP
 - a. RT2 Safety Standard (Section 5 Pre-treatment quality assurance verification and approval) requires two approval before delivery of therapy. It was expected that one (of two) approvals for delivery would be implemented by means of QAPV.
 - b. Proposal to add a second Treatment Approval Status (APPROVED, UNAPPROVED, REJECTED) in RT Plan IOD. Also include Reviewer Name, Date, Time, and Approval Type in Approval Module.
 - c. David Wikler to create draft CP for discussion in WG-07 2023-12-20

WG-07 Meeting (1 hour) to be scheduled for 9:00am ET on 20-Dec-2023 at 9:00am ET to discuss CP2374 Improve RT equipment mapping for imaging.

Adjourned 13-Dec-2023 at 1:00pm ET