

IHE-RO Technical Committee Conference Call

June 20, 2024

10:30 am – 11:50 pm ET

Technical Committee Chairs:

Scott Hadley, PhD, University of Michigan

David Wikler, IBA

Mission Statement: *The American Association of Physicists in Medicine American Society for Radiology Oncology (AAPM) supports a multi-society Task Force to undertake an initiative to promote the Integration of the Healthcare Enterprise (IHE) – Radiation Oncology (RO), fostering seamless connectivity and integration of radiotherapy equipment and the patient health information systems. The Task Force will include members from ASTRO, RSNA, AAPM, the American College of Radiology (ACR) and the Medical Imaging and Technology Alliance (MITA). In addition, members of the international community have also been invited to participate in IHE-RO. The IHE-RO Task Force, in close collaboration with radiotherapy product manufacturers, will develop appropriate integration profiles for radiation therapy and setup a demonstration of seamless communication among the full array of radiotherapy products.*

Attendance

David Wikler (IBA)
Jill Moton (AAPM)
Walter Bosch (Wash U)
Jim Percy (Elekta)
Scott Hadley (UMich)
Christof Schadt (Brainlab)
Harold Beunk (Demcon)
Jingjie Zhou (United Imaging)
Xiao Gu (United Imaging)
Bruce Rakes (Mevion)
David Holst (RaySearch)
Thomas Schwere (Varian)
Sanjay Bari (Elekta)
Stefan Boman (Elekta)
Yili Luo (United Imaging)

Minutes

- I. Call to Order at 10:34am EDT
- II. Review Agenda
 - a. The agenda was reviewed and approved.
- III. Review Minutes
 - a. Minutes from the May 16, 2024 TC teleconference were reviewed.
 - i. **Motion by David Wikler to approve; seconded by Jim Percy; approved without objection or abstention.**
- IV. Reporting
 - a. IHE-RO PC Meeting
 - i. David reported on the IHE-RO Profiles Roadmap. The PC gave guidance on priorities for development of IHE-RO Profiles. Concern was expressed regarding Profiles not making it to implementation/testing/technical framework. Focus on cleanup of existing Profiles before creating new ones. Request for an updated list of Profiles by product category, priorities for new profiles will be discussed after the results of the survey 6 weeks after ASTRO.
 - ii. A PowerPoint presentation of this report can be found in **IHERO TC Share > Planning > IHE-RO_Profiles_Roadmap_2024.pptx** in Box.
 - b. DICOM WG-07 Meeting

- i. Christof reported on highlights of the June 10-14, 2024 meeting of DICOM WG-07. Emphasis of WG-07 is now on maintenance of DICOM RT objects. Discussion of setup beams, recording for non-C-arm treatment delivery, hybrid dose objects. Acknowledgment of FHIR as a candidate for developments addressing new use cases.
- c. IHE-RO Subcommittees (DIR, ROTH, HDSS, TSWF, TT)
 - i. No major issues for TC review at this time.
- d. IHE Integration Statement Seals [Walter]
 - i. **ACTION:** Walter to follow up with Daniel Berezeanu (IHE-Catalyst)

V. Administration

- a. SMRT profile development subcommittee
 - i. Extension of the FHIR standard to be done separately (in HL7/FHIR community project) in coordination with IHE-RO. The Profile will be published by IHE.
 - ii. Clarification is needed from CodeX whether SMRT should be developed as part of the existing RTTD project, or as a new project. ACTION: Walter to discuss this in upcoming meeting of HIS SC?
 - iii. Discussion of sharing FHIR expertise from XRTS for development of SMRT (and ROTH).
 - iv. **ACTION:** Jingjie Zhou and Yili Luo to develop SMRT sequence diagram. The PlantUML software tool may be helpful and is recommended by IHE (<https://github.com/plantuml/plantuml>). Extensions for VSCode and other IDEs are available.
- b. Cybersecurity AAPM TG393 request for helpful integration profile
 - i. Opportunity for ROTH disaster recovery use case? (Need to update the IHE wiki).
 - ii. TG393 web page: https://www.aapm.org/org/structure/default.asp?committee_code=TG393
 - iii. Other approaches, e.g., use of DICOMweb/IHE-ITI ATNA profile may also address the need for enhanced cybersecurity.
 - iv. **ACTION:** David to report to PC and to AAPM TG293 that the IHE-RO ROTH profile (and DICOMweb/ATNA) can be used to address cybersecurity concerns.
 - v. **ACTION:** David to reach out to IHE-RAD, IHE-ITI and IHE DCC.
- c. Vote to bring TPPC-Brachy and TDRC-Brachy Profiles to TI
 - i. Jim Percy reviewed Profile text and reported on progress in the Brachy subgroup on cleanup of these Profiles. Corrections in response to public comments have been incorporated. No open issues remain at this time.
 - ii. TDRC-Brachy Supplement text can be found in IHERO TC Share > TPPC-Brachy > IHE_RO_Suppl_TDRC-Brachy_Rev1-0.06_2024-06-19.docx
 - iii. **Motion by Walter Bosch to approve TDRC-Brachy for Trial Implementation; seconded by David Wikler; approved without objection or abstention.**
 - iv. TPPC-Brachy Supplement text can be found in IHERO TC Share > TPPC-Brachy > IHE_RO_Suppl_TPPC-Brachy_Rev1.0.05_2024-06-19.docx
 - v. **Motion by Walter Bosch to approve TPPC-Brachy for Trial Implementation; seconded by David Wikler; approved without objection or abstention.**
 - vi. **ACTION:** Jim Percy to forward TDRC-Brachy and TPPC-Brachy Supplements to Mary Jungers for publication.

VI. Profiles Development Topics – Deferred to July 3 Agenda

- a. BRTO-II CP for (CLOSEPLANAR_XOR) [Jim]
- b. BRTO-II testing question: Resampled/Combined CT Series Storage [RO-11]
- c. BRTO-II testing question: ROIs with excluded internal volumes (Contourer Actors)
- d. MMRO-III CP (Referenced Image Sequence) [Jim]

VII. Profile Development Topics for Future Meetings

- a. PODOSE [Jim]
- b. DRRO CP proposal (Created instances Study Instance UID and Study-level attributes requirements) [Test Tools SC]
- c. TDW-II CP proposal (time zone offset, additional input information instances) [David]

d. CP proposal to add Treatment Session UID addition to relevant existing profiles [Bruce]

VIII. Next TC Meetings

- a. July 3, 2024 Teleconference at 10:30am ET (Special meeting for BRTO-II and MMRO-III topics)
- b. July 18, 2024 Teleconference at 10:30am ET (Regular monthly TC meeting)

IX. Adjournment at 11:59am EDT