

IHE-RO Technical Committee
Conference Call
May 15, 2017
10:30 am – 12:00 pm EST

Technical Committee Chairs:
Scott Hadley, PhD, University of Michigan
Chris Pauer, Sun Nuclear

IHERO Task Force Co-Chairs
Bruce Curran, MS, ME, FAAPM, FACMP, FACR, AAPM / VCU Health
John Buatti, MD

Mission Statement: *The American Society for Radiology Oncology (ASTRO) has formed 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, American Association of Physicists in Medicine (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.*

In Attendance:

Scott Hadley, UMich
Chris Pauer, Sun Nuclear
Walter Bosch, WashU/ATC
Sven Siekmann, Brainlab
Koua Yang, Philips
Harold Beunk, ICT
Thomas Schwere, Varian
Stefan Pall Boman, Raysearch
Jim Percy, Elekta
Kari Grano, Varian
Michael Owens, Reflexion
Bruce Curran, AAPM, VCU
Rickard Holmberg, RaySearch
Bob Pekarek, Accuray

Minutes:

- I. Call to Order at 10:35am ET – a quorum was declared
 - a. Review Agenda

- II. Update on Steering Committee Meeting and Planning Committee
 - a. The IHE-RO Planning Committee has focused on setting priorities and preparing the annual domain report for IHE. New profiles have been identified and will be reviewed by the TC (see below).
 - b. The IHE-RO Steering Committee is reviewing membership fees for RO Domain members.
 - c. IHE membership fees for existing IHE members in the RO domain can be covered by AAPM. (See the IHE website for a list of current members.)
 - d. Angela Kennedy has announced that a replacement for Carla Hull has accepted employment at AAPM and should be starting work shortly.

- III. Connectathon Plans accepted by Testing and Tools Committee of IHE – Walter presented the 2017 IHE-RO Connectathon Planning Request to the IHE Testing & Tools Committee on 5/1/17 and to the IHE Board on 5/11/17. The plan for this year's connectathon has been approved by IHE board.
- IV. Yearly report filed with Domain Committee of IHE – Chris has submitted annual RO Domain report to IHE.
- V. Review Priority Candidates for Planning Committee
 - a. What is the likely Technical Committee Disposition?
 - b. Any other feedback from a technical stand point.
 - c. Profiles of Interest:
 - i. Multi-Modality Residual Dose Optimization
 - 1. Interoperability issues appear to be addressed by the existing DCOM profile
 - 2. Accepting existing plan overlaps TPPC (brachy extension)
 - 3. Dose recalculation for HDR would require dose normalization parameters
 - 4. Dose fractionation modeling requires tissue-specific alpha/beta parameters.
 - ii. In Vivo Patient Dosimetry
 - 1. Profile includes aspects of QAPV and 1D and 2D real-time dose data capture, analogous to QAPV during treatment.
 - 2. It is not clear whether the relevant data standard for dosimetric data capture are in place.
 - 3. The Use Case emphasizes workflow and appears to overlap DPDW in-vivo dose monitoring system(s).
 - 4. Real-time data capture requires synchronization with treatment delivery systems.
 - 5. Some concern was expressed regarding vendor commitment to implement such systems.
 - iii. Configuration Management
 - 1. Machine configuration management – may need to await further progress on RT3.
 - iv. Integration with Proton Therapy
 - 1. Work is in progress in the IHE Ion sub-group to create Ion-specific content for TPPC, TPDC, and TPRC.
 - v. Contour and Beam Aperture Contours
 - 1. Beam apertures are annotated as curves on RT Image. However, the Curves Module is retired as of 2004. Use of RT Structure Sets as an alternative is challenging. Some vendors have used private attributes for this purpose.
 - 2. The Use Case appears to overlap TPIC.
 - 3. Refer to WG-07 for development of IOD or adaptation of existing RT Structure Set, etc.
 - 4. 2D imaging for patient positioning/image guided RT is likely to be a continuing issue over the next 5-10 years.
- VI. Upcoming meetings or other final items.
 - a. Test Tool update – ICT has requested test data for TDPC, CDEB in the form of RT Plans ready for delivery with complete tolerance tables and dose reference specifications.
- VII. Meeting adjourned at 11:45am ET