

**IHE-RO Technical Committee  
Face-to-Face  
August 1, 2018 2:00 – 5:30 CDT  
Music City Center – Nashville TN  
Convention Center Rm 101D**

**August 2-3, 2018 at 8:30-5:30 CDT  
August 4 8:30-12:00 CDT  
Omni Hotel Level 2 Music Row 1**

**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  
Bridget Koontz, MD, Medical Director, RO Services, Duke Regional**

**Mission Statement:** *The American Association of Physicists in Medicine (AAPM) sponsors a multi-society Task Force to undertake an initiative to promote the Integration of the Healthcare Enterprise (IHE) – Radiation Oncology (RO. Originally formed by the American Society for Radiation Oncology (ASTRO), it fosters seamless connectivity and integration of radiotherapy equipment and the patient health information systems. The Technical Committee of IHE-RO will undertake use cases defined by 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.*

**Attendees:**

| Name             | Affiliation     | Email  | 8/1 | 8/2 | 8/3 | 8/4 |
|------------------|-----------------|--|-----|-----|-----|-----|
| Chris Pauer      | Sun Nuclear     | <a href="mailto:chrispauer@sunnuclear.com">chrispauer@sunnuclear.com</a>                   | X   | X   | X   | X   |
| Scott Hadley     | U. Mich.        | <a href="mailto:swhadley@umich.edu">swhadley@umich.edu</a>                                 | X   | X   | X   | X   |
| Walter Bosch     | Wash. Univ.     | <a href="mailto:wbosch@wustl.edu">wbosch@wustl.edu</a>                                     | X   | X   | X   | X   |
| Jill Moton       | AAPM            | <a href="mailto:Jill@aapm.org">Jill@aapm.org</a>   | X   | X   | X   | X   |
| Koua Yang        | Philips         | <a href="mailto:Koua.yang@philips.com">Koua.yang@philips.com</a>                           | X   | X   | X   | X   |
| Rickard Holmberg | Raysearch Labs  | <a href="mailto:Rickard.Holmberg@raysearchlabs.com">Rickard.Holmberg@raysearchlabs.com</a> | X   | X   | X   | X   |
| Stina Svensson   | Raysearch Labs  | <a href="mailto:Stina.svensson@raysearchlabs.com">Stina.svensson@raysearchlabs.com</a>     | X   | X   |     |     |
| Sven Siekmann    | Brainlab        | <a href="mailto:Sven.Siekmann@brainlab.com">Sven.Siekmann@brainlab.com</a>                 | T   | T   | T   | T   |
| Rishabh Kapoor   | VCU/VHA         | <a href="mailto:Rishabh.kapoor@va.gov">Rishabh.kapoor@va.gov</a>                           | X   | X   | X   |     |
| Thomas Schwere   | Varian          | <a href="mailto:Thomas.Schwere@varian.com">Thomas.Schwere@varian.com</a>                   | X   | X   | X   | X   |
| Bob Pekarek      | Accuray         | <a href="mailto:bpekarek@accuray.com">bpekarek@accuray.com</a>                             | X   | X   | X   | X   |
| Jim Percy        | Elekta          | <a href="mailto:Jim.percy@elekta.com">Jim.percy@elekta.com</a>                             | X   | X   | X   | X   |
| Habeeb Saleh     | Univ. of Kansas | <a href="mailto:hsaleh@kumc.edu">hsaleh@kumc.edu</a>                                       | X   |     |     |     |

|                  |                             |  |   |   |   |                 |
|------------------|-----------------------------|--|---|---|---|-----------------|
| Bruce Rakes      | Mevion                      | <a href="mailto:rbrakes@mevion.com">rbrakes@mevion.com</a>                               | X | X | X | X               |
| Johannes Stahl   | United Imaging              | <a href="mailto:Johannes.stahl@united-imaging.com">Johannes.stahl@united-imaging.com</a> | X | X | X |                 |
| Bruce Curran     | AAPM / VCU                  | <a href="mailto:bhcurran@gmail.com">bhcurran@gmail.com</a>                               | X | X | X | X <sub>35</sub> |
| Tucker Meyers    | EPIC                        | <a href="mailto:tucker@epic.com">tucker@epic.com</a>                                     |   | X | X |                 |
| Dan Rutz         | EPIC                        | <a href="mailto:drutz@epic.com">drutz@epic.com</a>                                       |   | X | X |                 |
| Simon Andersson  | Raysearch Labs              | <a href="mailto:Simon.andersson@raysearchlabs.com">Simon.andersson@raysearchlabs.com</a> |   | X |   |                 |
| Stephen Oyewale  | Lawton, OK                  | <a href="mailto:Steve.oyewale@gmail.com">Steve.oyewale@gmail.com</a>                     | X |   |   |                 |
| Rok Stefanic     | Cosylab                     |  | T |   |   |                 |
| Stuart Swerdloff | Elekta                      | <a href="mailto:Stuart.swerdloff@elekta.com">Stuart.swerdloff@elekta.com</a>             | X |   |   |                 |
| Neelu Soni       | Mercy Hospital, Springfield | <a href="mailto:SoniNeelu@yahoo.com">SoniNeelu@yahoo.com</a>                             | X |   |   |                 |
| Erli Chen        | Chesline Medical Ctr.       | <a href="mailto:echen@chesline.com">echen@chesline.com</a>                               | X |   |   |                 |
| Chuang Wang      | MSKCC                       | <a href="mailto:wangci@mskcc.org">wangci@mskcc.org</a>                                   | X |   |   |                 |
| Francis Beating  | Versant                     |  | X |   |   |                 |
| Daniel Bridges   | Gumma Univ., Japan          |  |   | X |   |                 |
| Matthew Al-Ghazi | UC Irvine Health            | <a href="mailto:malghazi@uci.edu">malghazi@uci.edu</a>                                   |   | X | X | X               |

X = In person, T = Via teleconference

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## Minutes:

### I. Call to Order at 2:00 pm CDT, Wed. Aug. 1, 2018

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a. Nine members were present. A quorum was declared.

b. Observers and new participants

i. Introductions

1. Comments

2. Suggested Use Cases

3. Feedback

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4. Questions

ii. Discussion of clinical pain points / potential Use Cases

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1. "Treatment in Flight," i.e., transfer of patient datasets between hospitals for continuing therapy after equipment failure. (Re-)planning is not too difficult. Retrieval of patient history is challenging, requires manual intervention. This is an issue for continuity of care across sites in a network. Related Use Cases include the following:

a. Ease transfer of data for RO.

b. Ease full patient import/export

c. Continuity of patient record – HIS and therapy tracking

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i. MRN ID transfer

ii. Tracking of patient across multiple, distributed systems

iii. Cross-facility chart review

d. Continuity of Care – handle patient transfer to another device during treatment

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i. Content of Treatment Record must be consistent

e. Additive Treatment – must handle continuing care on the same device, same software

2. Retrieval of historical patient data. For standard formats, historical data should continue to be usable. (Historical data in proprietary formats is outside the scope of IHE-RO efforts.)

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3. QA Device interoperability

a. commissioning was done on one vendor's equipment, now trying to use that data on a different software vendor's commissioning

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b. compare two water tanks for commissioning purposes – needs a standard for the data format

c. Review Agenda

i. Other broad topics to add

ii. Agenda approved

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### II. Topic 1: Goals for Week

a. Technical Framework

i. The TC has been waiting to publish Profiles in the TF pending successful testing in Connectathons.

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b. Advance Profiles:

i. HIS – content was discussed at TC meetings in Feb and Apr 2018

ii. Prescription in RO (RXRO) – Sup 147 is being prepared for Final Text

iii. Deformable Registration

iv. Basic Quality Assurance Workflow (BQAW)

- 90 v. Treatment Delivery – Record Content (TDRC) – to be prepared for Public Comment
- c. Test Tools for use for Connectathon
  - d. Connectathon prep schedule
    - i. Actor Testing Survey due to Walter ASAP
    - ii. Test Tool results due to Walter by Aug 17
    - 95 iii. Report Test Tool bugs and issues ASAP
    - iv. Test datasets to be ready for download by Aug 31

### III. Topic 2: Profile Statuses

- a. Chris reviewed the status of IHE-RO Profiles in Technical Framework, Public Comment, In Process, Priorities
- 100 b. **ACTION 180801**: Chris to update Profile table on ihe-ro.org wiki.

### IV. Topic 3: Level Set

- 105 a. Updates on IHE-RO activities
  - i. Planning
    - 1. Results of two surveys of Use Cases have been prepared for TC review
    - 2. Mark Pepelea is to give an IHE webinar on the RO domain
  - ii. Oversight, Steering Committees
  - 110 iii. Domain Coordination Committee – Change proposal to include DICOM content to Vol 3 Chapter 7 (drafted by Uli Busch) was reviewed. Approval of an updated version of this template is anticipated at the end of August 2018.
- b. AAPM
  - i. RO-SSI meeting July 31, 2018
    - 115 1. An updated version of the error message document was discussed. It includes a recommendation that error messages be logged for review by physicists.
    - 2. Training and QA documents are in the pipeline.
  - ii. JACMP to include a practical IT issues column.
- c. DICOM WG-7 Update – Walter updated the group on the WG-7 April 14-18, 2018 meeting
- 120 d. AdvaMed and Standards Efforts – Jim Percy updated the group on RT3 Standard
  - i. RT3-Machine Characteristics Standard
    - 1. Standard document
    - 2. Template for creating machine characterization
    - 125 3. XML Schema document

*Thursday August 2*

### V. Topic 3.5: Review List of Proposed PC Use Cases

- 130 a. The TC reviewed the “2018.07.19 IHE-RO Survey responses.xlsx” document from the PC. The list contains issues derived from AAPM and ASTRO surveys. It has been organized by Eric Vinson according to Issue Type, (e.g., “RO to HIS”, “RO to RO”, ...), Issue Level, ...
- b. **ACTION 180802**: Scott and Rishabh to review/triage this list during breakout session.

VI. Announcement that July 2018 TC minutes have been posted to <http://wiki.ihe.net> was made on 8/2/18.

### VII. Topic 4: Deformable Registration

- 140 a. The TC reviewed an early draft of the DRRO Profile. The draft defines Actors
  - i. Def. Registrator
  - ii. Def Registered Contourer
  - iii. Def Registered Display

- iv. Ref General Registered Dose Display
- v. Def Registered Compositing Plan
- vi. Def Registered Dose Compositor
- b. Test data can be derived from AAPM TG-132 report on validation of deformable registration. This report uses contour-based, landmark-based, and image similarity metrics to evaluate registration.
- c. DIR task group to include
  - i. Stina Svensson (RaySearch) - chair
  - ii. Dan Thil (Elekta)
  - iii. TBN (Varian)
  - iv. Rojano Kashani (UMich)
  - v. Mark Pepelea (Philips)
  - vi. TBN (MIM)
  - vii. TBN (Mirada)
  - viii. TBN (ImSimQA)
  - ix. Scott Hadley
  - x. Walter Bosch
- d. Tasks/topics for the sub-group
  - i. Survey usage of DSRO information object
  - ii. Usage of contour guidance information. (Fiducials used to determine registration.)
  - iii. Metadata describing creation of DSRO?
  - iv. Data transfer for support of validation.
- e. **ACTION 180803**: Group participants to forward contacts to Jill for survey of sub-group meeting times. (10am ET)

#### VIII. Topic 5: HIS

- a. Tucker Meyers reviewed a summary of message contents for communication between OIS and HIS (summary-of-progress-20180718.pdf)
- b. Discussion of the context for exchange of messages between OIS and HIS. Details were captured by Tucker Meyers.
  - i. What is the workflow context for treatment Intent?
  - ii. The workflow may vary by institution.
  - iii. The Intent may be updated (refined, expanded) based on workup.
  - iv. Staging is included, but may not be determined when Intent is created. Staging may be represented both as free-text and using a structured representation (Code Scheme, Code Value).
  - v. Multiple site + diagnosis entries may be needed: use repeating groups
- c. **ACTION 180804**: Rishabh, Scott, Tucker to draft white paper outlining content of Physician Intent message to solicit feedback from physician community.
  - i. Data model
  - ii. Data element descriptions
  - iii. Lifecycle
  - iv. May include coding options (in Appendix)
  - v. Protocol (treatment per protocol guidelines? eligibility? consented? accrued?)
- d. Other topics discussed
  - i. *Desired* (latest) start date for therapy? Clinical use cases include coordination with concurrent chemo or bone marrow transplant for total body irradiation. Seek input from physicians.
  - ii. Dose units: use units of Gy for transfer.
  - iii. The content of Prescription is a superset of (and may be updated from) Intent.
- e. The TC reviewed an example HL7v2 (chapter 12.3.2) message for Intent

- i. Message Type may be *add*, *update*, or *delete*. Is a message type of *delete* needed?
- ii. Lifecycle identifier can be used to update patient status. (add to Pathway?)
- iii. Discussion of updates to Intent, creation of new Intent, creation of Prescription from Intent.
- iv. Results message records the delivery of nominal dose for delivered fractions. This may involve delivery of multiple plans for one prescription. Reporting of therapy results is complex. Results are needed in the HIS by clinicians for *patient management*. Details of plan delivery can be maintained in the OIS.

Lunch break 12:40-1:40pm

- f. Scott Hadley presented Planning Directive (dynamic) documents – UMich templates in Aria.
  - i. For each structure, these documents include priority, drawn by, image dataset, and instructions for delineation.
  - ii. Planning directive specifies treatment technique, including energy, bolus, IGRT parameters, etc.
  - iii. Sim Directive is a separate document.
  - iv. Workflow: Intent is created... Triggers Sim Directive... Plan is created... Triggers Prescription... Prescription is approved.

#### IX. Topic 8.5: TDW-II

- a. Thomas Schwere presented version 14 of the TDW-II Profile document. (version 13 was distributed 7/25/18.)
  - i. DICOM content requirements for UPS has been moved to Chapter 7.
  - ii. Base UPS Scheduled Procedure Information is common for all RT UPS types.
  - iii. Whenever possible, the existing UPS codes are to be used.
  - iv. Treatment Delivery Procedure Step Input Information Sequence contains
    - 1. RT Plan or RT Ion Plan
    - 2. BDI
    - 3. RT Beams Treatment Record (for continuation)
  - v. Treatment Delivery Parameters (\*=CP is needed to create codes for parameters – to be referred to DICOM WG-07)
    - 1. Treatment Delivery Type
    - 2. Plan Label\*
    - 3. Current Fraction Number\*
    - 4. Number of Fractions Planned\*
  - vi. Omitted Beam Task Sequence (300C,0111) is used to specify beams that are *not* to be delivered in the current session. The presence requirement for this attribute is changed to state that “...Zero or more items shall be present...”.
  - vii. N-SET Progress Updates require notification of the current Beam Number. Procedure Step Progress Parameters Sequence (0074,1007) is to be used to encode the current Beam Number.
  - viii. The Procedure Step Progress refers to the “percent” completion of the scheduled beams for the plan to be delivered.
  - ix. Change to Table 3.65.2-2: Status of Tx Delivery – the presence of treatment record(s) in the Output Information Sequence indicates that a treatment has been (partially or completely) delivered. The absence of treatment records in the Output Information Sequence indicates that no treatment has been delivered.
- b. **DECISION**: The consensus of the TC is to keep the TDW-II Profile at Trial Implementation pending informal testing at the 2018 Connectathon.

X. Topic 11: Treatment Delivery – Record Content

- a. The TDRS Profile was edited in Aug 2017 to add RT Ion Plan attributes. These have since been removed, pending completion of TPPC-Ion content.
- b. Chris reviewed version 0.8 (6/22/18) of the TDRS Profile draft.
- c. The TC discussed the relationship among Specified and Delivered Primary and Secondary Meterset values. Confusion is possible between Specified Meterset (3008,0042) and Specified Primary Meterset (3008,0032) for continuation beams. The TC recommends to DICOM WG-07 to include a clarifying example in Section C.8.8.21.2.
- d. The referenced DICOM Edition for this Profile should be updated to 2018.
- e. Dose reference information has been moved into the Control Point Sequence in RT Plan IOD. This may need to be updated in the TDRS DICOM content section.
- f. Beam identifiers Referenced Beam Number (300C,0006) and Beam Name (300A,00C2) shall be present and match corresponding attributes, if present, in the RT Plan.
- g. Table Top Position attributes (Type 2C) are R+.
- h. Override Sequence (Type 3) is R+.

*Friday August 3*

XI. Topic 6: BRTO-II

- a. Sven Siekmann reviewed updates to the BRTO-II Profile document.
- b. Missing entries in the Actor Options table (Table X.2-1) have been added.
- c. The TC discussed requirements to handle unevenly spaced CT slices by Dosimetric Planner and Dose Displayer Actors.
- d. **DECISION**: The RO-11 Resampled/Combined CT Series Storage Transaction was added as an Optional transaction for the Dosimetric Planner Actor.
- e. This change is needed to maintain consistency among CT/RT Structure Set/RT Plan datasets. No change is needed for the Dose Displayer Actor.
- f. **DECISION**: The Optionality of all transactions for the Archive Actor in BRTO-II was changed to R (Required).
- g. Off-slice contours retrieved with the RO-7 (Standard) Structure Set Retrieval requires safe handling. (See Section 3.7.4)
- h. **ACTION 180805**: Walter to communicate updates in BRTO-II Transaction Requirements to ICT.
- i. Revised document to be saved as revision 1.8.

XII. Topic 7: Prescription Profile (RXRO)

- a. Sven reviewed rev 0.11 of the RXRO draft with the TC.
- b. Sven has adapted descriptions of the three Use Cases.
- c. **ACTION 180806**: Bruce Curran to add a sentence to indicate that the Profile is intended to assist in compliance with legal requirements, however users must determine the adequacy for their jurisdiction.

XIII. Topic 8: TPPC

- a. Effective Wedge Angle value for a Motorized Wedge Beam
  - i. Required to be stored by a Producer, may be consumed by a Consumer
  - ii. **DECISION**: Display of this value by Consumers will not be tested at the Connectathon.

XIV. Topic 5 Revisited: HIS

- a. Reporting of Intent, Prescription, Results from OIS to HIS was discussed further. References to Plan (Label + UID) in Results Message were discussed. Plan identifiers may be used

forensically for comparison to the treatment record in the OIS, but are not needed by most HIS users. For non-RO users, information should be minimal.

- b. The primary Use Case is for communication from Radiation Oncology to other medical disciplines responsible for patient care. Summary of RT for Survivorship Care Plan is a secondary Use Case.
- c. The concept of *Site* as a means to accumulate nominal doses was discussed.
- d. Dose information is organized by Site. For each Site, the Results message tracks the following at each Session:
  - i. Site ID
  - ii. Fraction Number
  - iii. Planned Fraction Count
  - iv. Nominal Fraction dose delivered
  - v. Nominal Fraction dose planned
  - vi. Cumulative nominal dose
  - vii. (Total prescribed dose)
  - viii. Delivery Completion Status
- e. This approach assumes a single OIS is the source of Results messages. Handling updates from multiple OISs is an open issue.

XV. Topic 9: Connectathon Preparation – review of deadlines.

XVI. Topic 12.5: Use Cases suggested in this session

XVII. Topic 10: Basic QA Workflow

- a. Chris reviewed the current revision (0.9) of the BQAW Profile draft with the TC.
  - i. The Basic QA Workflow Profile defines five Actors: (1) Planning Data Provider, (2) Delivery Data Provider, (3) Planning Analysis Performer, (4) Delivery Analysis Performer, and (5) Data Store.
  - ii. The current draft uses DICOM Raw Data Storage to encapsulate proprietary data. The Raw Data IOD includes a description of content using a code sequence.
  - iii. The TC discussed using the existence of a QA Results Report (with successful evaluation results) to enable delivery of a plan.
  - iv. Transactions defined:
    - 1. Raw Data Storage
    - 2. RT Image Storage
    - 3. Content Assessment Results Storage
    - 4. Encapsulated PDF Storage
    - 5. KOS Document Storage
    - 6. Store Tx Delivery Results
    - 7. Single Series Image Retrieval
    - 8. Spatial Reg-III Retrieval
    - 9. Dosimetric Plan Storage
    - 10. Dose Storage
    - 11. Structure Set Storage
  - v. Add RT Image Storage for measured and predicted fluence.
- b. The TC discussed other mechanisms for aggregating datasets for QA processing.

XVIII. Topic 11: Treatment Delivery – Record Content (continued)

- a. The TC reviewed changes incorporated in rev. 0.9 of the TDRC Profile based on work Aug 2.
- b. Requirements for >>Specified Meterset (3008,0042) (Type2) and >>Delivered Meterset (3008,0044) (Type 1) were removed. The DICOM requirements control these attributes.



- 345 c. Table Top {Vertical, Longitudinal, Lateral} Position attributes are effectively 1C (shall not be NULL).
- d. Override Sequence shall be present if override was used.
- e. **DECISION**: The TDRC Profile (rev. 0.9, Aug 2) was voted to Public Comment.
- 350 f. **ACTION 180807**: Chris to clean up TDRC text and distribute to IHE Domain Coordination Committee for Public Comment by Aug 31.
- g. Amendment [8/4/18 at 9:00am] - The TC voted to include the following change in the Public Comment version of the TDRC Profile
- i. Add Current Fraction Number (3008,0022) and Treatment Delivery Type (300A,00CE) to TDRC with Requirement of “R+”.
- 355

XIX. Topic 11.5: TPPC-ION (Treatment Planning – Ion Plan Content)

- a. Bruce Rakes reviewed draft (vers. 0.10) of the TPPC-ION Profile document
- b. The current draft addresses five beam types.
- c. Options: bolus, block, range compensator, and dynamic MLC
- 360 d. The document does not currently address scattered beams or ocular beam lines.
- e. There is no Archive Actor.
- f. For each Producer/Consumer pair there is a Storage and a Retrieval Transaction.
- g. The requirement for TPS to preserve Tolerance Tables in RT Ion Plan was flagged as an open issue. This requirement should be addressed in TDPC-ION.
- 365 h. There may be some difficulty in defining Final Cumulative Meterset Weight for double-scattered ion beams.

*Saturday August 4*

370 XX. Test Tools

- a. The TC discussed the ICT Contract for support and development of Test Tools.

XXI. Overflow topics from previous days.

- a. Presence requirements for DICOM attributes
- 375 i. DICOM Type 2 elements whose value is *required* should be indicated in Profiles as **R+** or **R+\***.
- b. TDRC: include Current Fraction Number (3008,0022) and Treatment Delivery Type (300A,00CE)
- c. Discussion of the robustness of interoperability. Example: Identification of Treatment
- 380 Delivery Device in QA Software
- i. The TC discussed standard method(s) for referencing delivery devices. What happens when the Manufacturer Name changes? Is a registry of devices needed? Should the TDPC Profile call out attributes that are used to identify the delivery device?
- ii. Upgrading products is important. Interoperability between products is affected by
- 385 1. Software revisions
2. Editions of DICOM implemented in toolkit libraries
3. Configuration
- iii. Integration Profiles can *expose dependencies and assumptions* in the use of standards.
- iv. Effort and resources are needed to achieve and maintain interoperable exchange.
- 390 v. **ACTION 180808**: Bruce and Scott to work with the Steering Committee on how to better educate consumers on the capabilities and limitations of interoperability.

XXII. Topic 12: 4D Image Import

- a. Scott reported on Profile proposal he is drafting for IHE-RAD domain on 4D Image Import.

- 395 b. **ACTION 180809**: Scott to submit IHE-RAD proposal for 4D imaging by Aug. 10, 2018.  
Chris will review.

XXIII. QA Workflow (continued)

- 400 a. The group continued discussion of a proposal for an Integrated QA Checker Profile.  
b. The Data Provider Actor stores a set of treatment planning or treatment delivery artifacts after a trigger event occurs.

XXIV. QRRO – Query/Retrieve in Radiation Oncology

- 405 a. Issues discussed include  
i. Query keys  
ii. Use cases are listed in clinical impact statement and “qrro-usecases\_1.0.docx” document linked on ihe-ro.org wiki

XXV. Topic 13: Review Minutes

- 410 a. Draft minutes from TC meeting  
b. Minutes from the July 2018 TC Teleconference were approved without objection.

XXVI. Topic 14: Review Action Items – the TC reviewed draft minutes and Action Items from this meeting.

415XXVII. Topic 15: Future Meetings / Next Agenda

- a. IHE-RO TC Meetings  
i. Jan 14-18, 2019, Melbourne, FL  
ii. April 2-5, 2019, after AAPM SCM, Orlando, FL  
iii. Post-AAPM – July 17-20, 2019, San Antonio, TX  
420 iv. Fall Connectathon – Oct 7-12, 2019, Munich  
v. Dec 9-13, 2019, Alexandria, VA
- b. IHE-RO TC Tcons  
i. New time is third Thursdays 10:30am-12:00pm ET.  
425 ii. No teleconferences scheduled in Aug and Sept. 2018.
- c. Other meetings of interest  
i. DICOM WG-07  
430 1. October 24 (8:30am) – October 27, 2018 (12pm) San Antonio, TX  
2. December 3 (8:30) – December 7, 2018 (12:00) Melbourne, FL  
3. March 4-8, 2019 (tentative) Munich (Brainlab)  
4. July 29 – Aug 2, 2019 Brainlab, Chicago (or MITA, Washington)  
5. Sept 23-29, 2019 *or* Sept 30 – Oct 4, 2019 – (tentatively in St. Louis)  
435 6. November 18-22, 2019 (tentative) - Melbourne, FL (or MITA, Washington)
- ii. PTCOG June 10, 2019  
iii. AAPM Jul 14-18, 2019, San Antonio, TX  
iv. ASTRO Sept. 15-18, 2019  
v. RSNA Chicago, IL

440 XXVIII. Meeting Adjourned at 11:35am CT on 8/4/18.