Integrating the Healthcare Enterprise for Radiation Oncology (IHE-RO) Update
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Integrating the Healthcare Enterprise Radiation Oncology (IHE-RO) Update

- IHE Organizational Structure
    - **Planning Committee** – identifies integration problems and sets requirements for integration profiles
    - **Technical Committee** – writes technical specifications to apply standard to solve integration problems.
- IHE-RO initiative began with an organizational meeting at RSNA 2004

IHE-RO Planning Committee
Use Case #1

- In Jan 2005, IHE-RO/PC developed a Clinical Use Case consisting of the normal flow of information through a radiation oncology clinic for imaging, Tx planning and Tx delivery (w/o scheduling or demographic data transfer)

- The initial goal is to develop an integration profile for this use case and demonstrate conformant applications at Connectathon in 2006.

IHE-RO Technical Committee
Apr 25-26, 2005 Meeting, NEMA

- Reviewed of areas of interaction between Actors to identify issues/limitations to be addressed in the Technical Profile and Frameworks documents
- Issues discussed include
  - Query/Retrieve *vs.* General Purpose Worklist management mechanism for directing the flow of data
  - Granularity of "Actors" – optional components, exposure of internal interfaces
  - Combined Image/RT Archives are not yet broadly available
  - RT Structure Set Issues: bifurcations; auto-contouring clutter (e.g. in lung); overlapping contours; #ROIs, contours, points to be supported.
  - RT Plan: Geometric *vs.* Dosimetric *vs.* Deliverable

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IHE-RO Technical Committee
Jan 25-26, 2005 Meeting, NEMA

- Evaluate the Planning Committee's Use Case #1
- Begin identifying Actors and Transactions
  - Image Acquisition
  - Contouring/Beam Editor/Planning Applications
  - Treatment Delivery
  - Clinical Trials Data Submission
- Issues identified for 2006 Demonstration
  - Query/Retrieve as a substitute for General Purpose Worklist management mechanism for directing the flow of data
  - Dose Import for summing dose from disparate systems
  - Contours on derived (interpolated) image slices
  - Clinical Trial Data Submission from RT Archives
  - Demonstration of Treatment Delivery Systems

IHE-RO Technical Committee
June 1, 2005 Teleconference

- IHE-RO PC response to TC Apr 25-27 Meeting report
  - Better data exchange, i.e., interoperability of objects is most important for 2006
  - Defer workflow management and multimodality imaging for 2007
- Summary of issues related to CT images and RT Structure Set information objects
  - Support for non-uniformly spaced images is required
  - Applications that use reformatted (interpolated) images for contouring must export the reformatted images (DERIVED/ SECONDARY image type)
  - Applications performing auto-segmentation must clean up contours prior to export – need to identify workable limits on bifurcation and numbers of ROIs/contours/points