IT MANAGEMENT IN A MAJOR HOSPITAL SYSTEM

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Disclosures

- AAPM Funding:
  - DICOM Working Group 7 (member since 1994)
  - IHE-RO (co-chair, AAPM Steering Committee since 2017)

- ASTRO Funding:
  - IHE-RO (co-chair, Technical Committee 2004 – 2014)

IT in a Major Hospital System

- Separate IT Department with its own resources and policies
- In very large departments, may be in-department personnel
- Biomedical Engineering Department involved in equipment maintenance
- May also have in-department support personnel
- Non-RO Departments may not understand RO needs
- Recommend isolated IT space for each system
- Priorities are often security-based rather than patient treatment centric
Role of the Medical Physicist

- Responsible for the overall operations of RO equipment
- Verify correct operation of systems prior to clinical use
- Development of Policies and Procedures for IT integration
- Requires buy-in from IT and Biomedical leadership
- Management of diverse goals in support of quality patient care
- Establish Medical Physicist as the lead in IT systems for RO
- Lead Planning and Implementation Teams for IT systems
- Not always the leader, but instrumental in their actions

VCU Health System Radiation Oncology IT

- 2 Individuals (mutual backup)
  - One primary for Varian-based applications
  - One primary for Philips and other applications
- Recognized by VCU and VCUHS IT as peers
  - Independent Active Directory for Radiation Oncology Users
  - Complete control over devices, users, …
  - Handle all radiation oncology applications
  - Aria, Eclipse, Pinnacle, …
- Medical Physics Advisory Group to help set policies
Network Access

- Generally, access through each Medical Device VLAN is highly restricted
  - No internet access
  - No VA network access except to OIT systems (license servers, AD servers, …)
  - Access control is maintained by National IT, not local facility IT
- General policy is that each Medical Device is independently isolated in its own VLAN
Medical Physicist Oversight

- For Radiation Oncology, departments are allowed to contain all Medical Devices in a single VLAN
- Easier configuration of communication between devices
- IT changes require multiple department support
- Radiation Oncology submits work order to Biomedical Engineering
- Biomedical Engineering submits IT order to OIT
  - OIT transfers order to Local IT if required
  - Local IT performs service

Richmond VAMC has slightly modified structure

- OIT has granted a Medical Physicist Administrative Rights to all Radiation Oncology Medical Devices
- Justification based on accreditation requirements for Medical Physicist to oversee all changes in biomedical devices associated with radiation treatment
- Privileges limited to devices inside the radiation oncology VLAN. Access requests for crossing the VLAN barrier still maintained by national OIT
- Annual training and resubmission required for renewal
- Privileges reviewed quarterly for appropriateness
Biomedical IT Devices: Radiation Oncology

Thank you