HERCA Multi-Stakeholder meeting
1st April 2015

THE WAY FORWARD: AWARENESS AND ADOPTION OF DOSE OPTIMIZATION AND MANAGEMENT

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TOPICS

• Multi-stakeholder - manufacturers’ contribution
  – Training curricula
    • Types & Availability
    • Challenges
  – Tools
    • Features & Deployment
    • Challenges
  – Discussion on adoption
TRAINING CURRICULA

• Dose awareness
  – General dose training, awareness of risks, ALARA, pediatric considerations etc...
  – Availability:
    • In person with manufacturer representative (physicist, application specialist etc...); Online; Operator manual chapters

• System feature
  – How to use the system features, “buttonology”, features impact on dose,
  – Availability:
    • Typically 1-2 weeks “hands on” with application specialists on installation; Supplemental “hands on” (contact with manufacturer representative to arrange); Operator manual; Online options

• External options
  – EuroSafe Imaging
  – Image Gently
  – EMAN
  – IAEA
• Challenges for effective use/adoption, manufacturer’s experience:
  – Time constraints for staff (techs/radiologists/physicists)
  – Adoption of new ideas/processes/protocols etc... by personnel
  – Cost of training for the facility
  – Staff turnover
  – Changing requirements/regulations
TOOLS

- Contemporary features/capabilities for dose management
  - Advanced protocols & guidance by patient size/age, clinical need etc...
  - Automatic exposure control (e.g. tube current modulation, scan initiation, kV selection)
  - Advanced reconstruction algorithms (e.g. adaptive, iterative, and model based)
  - Dose Management & Reporting
    - DICOM SR (IHE-REM, RDSR)
    - Dose metrics (CTDIvol, DLP, SSDE (future) etc...)
    - Dose Check (alert and notification values)
- ~50% of systems in installed base are > 6 years old (up from ~40% in 2008)
TOOLS

• Challenges for effective use/adoption, manufacturer’s experience:
  
  – Cost of equipment upgrade/replacement for the facility
  – Technical limitations for upgrading older systems
  – Global implementation and standardization
  – Use of available features by staff in daily practice
DISCUSSION ON ADOPTION

• What are the hurdles stakeholders face in making contemporary training and tools part of daily practice?
  – How do clinicians use the training options?
  – How do clinicians implement new tools in daily practice?