QIBA FDG-PET/CT Software Version Tracking - Subcommittee Update Call
March 10, 2009
11:00AM – 12:00PM CDT
Call Summary

In attendance:

Ling X. Shao, PhD (Chair)   **RSNA**
Michael E. Casey, PhD   Susan Anderson
                                                              Joe Koudelik

General Discussion

- Dr Shao provided an overview of the slide deck he prepared for the FDG-PET/CT Technical Committee and Dr Frank
- It was determined that only the "Big 3" device manufacturers will be included on these initial group activities (GE, Philips, Siemens)
    - Software (SW) versions need to be tracked
    - Spell out the importance of SW tracking to the vendors
    - Vendor volunteers needed on this subcommittee
- Software Tracking Subcommittee Approach
    - Short term (now) - manual tracking
    - Long term (5-8 years) - fully DICOM tracking
    - "One-button" SW tracking perhaps in the future (8 years +)
    - 1 year timeframe is tight
    - Unlikely vendors will upgrade on older (5 yr+) systems
    - Moving forward – try to get industry to comply
- Image Quality (IQ) Tracking
    - Not all manufacturers incorporate QI in their products
    - Need IQ change updates
    - Manufacture release notes should contain this information
    - If software upgrades cause IQ change, this needs to be dealt with somehow
- Dr Shao's Software Version Tracking Subcommittee survey to be sent Apps groups, i.e. customer support people who are 1st line of vendor contact for feedback
    - Areas of interest include:
        - Acquisition software
        - Reconstruction software
        - Display/Quantitation tools
- Imaging of a standard IQ phantom needed to examine quantitation
    - This would be repeated with any SW upgrade/change
    - Many SW changes may affect quantitation
    - Certain criteria
        - Quantitative criteria to be defined by this subcommittee – to determine IQ percent change
            - A site physicist task to perform, not only manufacturer
        - Vendors need to perform similar IQ check prior to scanner release
        - IEC phantom, part of the NEMA tests, to be looked into by Dr Jeffrey Yap's subcommittee
        - How to measure consistency – IQ team needs to address this question
- DICOM tags for tracking SW versions needed
    - SW tools on workstations don't relate to SW tools on scanner
    - Need to display both SW versions on DICOM headers

- RSNA to request a DICOM attribute for workstation display tools
- Suggestions
  - Standardized DICOM headers
  - DICOM tag needed for:
    - Scanner and workstation software versions
    - Reconstruction method used
    - Filters used

- In order to participate in studies, physicians must agree to abide by set protocols

Action Items:
- ROI team question – SUV numbers may vary with display tools – need info from 3rd party display vendors
- Drs Kinahan and Yap to discuss DRO and ROI related issues off-line
- Define DICOM attributes and develop a "wish list" to be discussed across subcommittees
- IEC phantom, part of the NEMA tests, to be looked into by Dr Jeffrey Yap's subcommittee