QIBA FDG-PET/CT Tech Ctte Update Call
March 9, 2012 at 9 AM CST
Call Summary

In attendance:
- Paul Kinahan, PhD (co-chair)
- Richard Frank MD, PhD (co-chair)
- Keith Allberg
- Andrew Buckler, MS
- Patricia Cole, PhD, MD
- Barbara Croft, MD
- John M. Hoffman, MD
- Martin Lodge, PhD
- Dennis Nelson, PhD
- Eric Perlman, MD
- Ling X. Shao, PhD
- John Sunderland, PhD
- John Wolodzko, PhD
- Jeffrey Yap, PhD
- Brian Zimmerman, PhD
- RSNA
- Joe Koudelik

FDG-PET Profile Update (v0.5.9)
- Much committee member feedback received and incorporated into this latest Profile version
- The use of “...for Oncologic Drug Development” in the title was discussed; whether the Profile should be broader than oncology and drug development needs further consideration
- The overall framework for a three-part Claim was discussed
  - Scanner function
  - Display station function
  - Scan site protocol
- Additional text needed to address SUV accuracy associated with <2cm lesions; lower-limit detail required
- Claim might be applied to a baseline target lesion
  - Lesions still need to be selected
  - Absolute lesion value requires phantom involvement
- Dr Kinahan welcomes additional edits by next Friday (Mar 16); next call to focus on the revised Profile

Spreadsheet of supporting literature reviewed (Dr Lodge)
- Discussion of eight supporting papers based on similar acquisition protocols
- Majority of references state narrow 11-13% range for SUVmax reproducibility estimates when converted to a standard parameter, such as standard deviation
- Mean absolute differences are closely related to inpatient deviation
- Whether FDG-PET and FDG-PET/CT scanners can be compared discussed
- Claim to measure SUVmax with a coefficient of repeatability of 30% was deemed possible
- Meaningful lesion change needs more literature support
- Reproducibility needs to be statistically validated
- Dr Lodge to follow-up with Dr Gatsonis concerning standard deviation details
  - Statistical details to be presented on a future t-con
- All “n” values and baseline SUVs deemed critical and should be reported
- Absolute vs. Change in SUV discussed
- RSNA staff to post current reproducibility literature references on the QIBA Wiki under a “FDG-PET Reproducibility” subdirectory

Next steps:
- Discuss PET Profile edits on next call
- Latest version of Profile available on the QIBA wiki: http://qibawiki.rsna.org/index.php?title=FDG-PET_tech_ctte
- Dr. Kinahan to follow up with Dr. Shao regarding software tracking details
- Mid-March: 1st draft of NIBIB application renewal needed; Early April final draft of application needed

Next call: to discuss Profile tbd