

## QIBA FDG-PET/CT Technical Committee September Update

Thursday, September 24, 2009

10 AM – 11 AM CDT

Call Summary

In attendance:

Paul Kinahan, PhD (Co-Chair)  
Richard Wahl, MD (Co-Chair)  
Ronald Boellaard, PhD  
Andrew Buckler, MS  
David A. Clunie, MBBS  
Constantine Gatsonis, PhD  
Igor D. Grachev, MD, PhD  
John Hoffman, MD  
Marianne Maffoni  
Dennis Nelson, PhD

Eric Perlman, MD  
Ling Shao, PhD  
Timothy Turkington, PhD  
John G. Wolodzko, PhD  
Daniel C. Sullivan, MD

### RSNA

Susan Anderson  
Joe Koudelik

### Discussion Topics

- Determine new call time going forward
- Subcommittee progress
- Review Poster for RSNA 2009
- FDG-PET/CT Profile progress

### Subcommittee progress

No real change to the committee's original charge, simply an evolutionary process; improving quantitative accuracy for clinical trials remains the focus.

- Framework and top-level motivation may change with time

### Subctte Progress

- SUV subctte update (Drs Kinahan and Clunie)
  - Have merged DRO and Quantitative Computation subcttes into SUV subctte (with a DRO focus)
  - Close to completion of a test object
- ROI Subctte (Dr Turkington)
  - Main concept of evaluation of what manufacturers are doing need to make recommendations of what sites should be doing
  - Need to coordinate next group call within 1-2 weeks
- Software Version Tracking (Dr Shao)
  - Need to coordinate next call to finalize survey
  - Dr Shao to then send his survey and data implementation to RSNA staff for distribution
  - Would like to leverage funding from NIBIB contract to further group progress

### Update on EANM Activities (Drs Boellard and Wahl)

- Several protocols--UK, Netherlands, Germany--will be combined and proposed as EANM guidelines for FDG-PET with an announcement at EANM meeting

- 30-page protocol to be published in early 2010
  - Now setting up workgroups
- Collaboration with EORTC to set-up trials network
- EORTC re-initiated a working group for CT-MR-PET on imaging work guidelines and standardization for imaging biomarkers used in clinical trials

### Profile as Guidance

- Imaging centers need guidance from QIBA and manufacturers
- There is demand in radiology community for ‘best practices’
  - Suggest minimum elements for deployment of quantitative PET imaging
  - E.g. 1-2 page QIBA Quantitative PET “check list” proposed, e.g. top 10-20 things to do for quantitative imaging in PET scans
  - Need a “Recommendations Document” of suggested minimum requirements to assist manufacturers in obtaining QI accuracy
  - Could be published in radiology and placed on website
- Two Focus Areas for QIBA
  - Brief check list for QI PET scanning
    - Could be accompanied by longer, more detailed ‘standards’ document for drug trials with essential items listed in the appendix
  - How to work with manufacturers and biopharma to make improvements
- Profile Version depends on user
  - Vendors (requests document, compliance testing)
  - User community (collaborative activities exist between these groups)
  - Biopharma (to contemplate use of Claims in clinical trials)
- Profile and standard imaging protocol not the same
- Dr Kinahan to draft an outline with some rearranged sections and current standardized practices in an appendix
  - Revision text (comments) can be bracketed on wiki; Feedback from all ctte members encouraged

### Profile Progress

- Profile to prescribe what is useful in obtaining repeatable results across sites with known bias, i.e. need the same numbers wherever data is collected
- Profile requires wording allowing for differentiated competition while pursuing performance thresholds objectively
- Mr Buckler drafted the original FDG-PET Whole Body Profile in June 2009 which is now being revised by Dr Kinahan; feedback and clarification welcome to best apply to the FDG-PET/CT modality
- Background / groundwork materials have been collected, but additional details on viability still required
- FDG-PET/CT may not need proof-of-principle groundwork like the vCT and DCE cttes have pursued
- Need to recognize and incorporate existing literature for FDG-PET/CT profile
- Revisions on the Wiki encouraged to provide fast response/feedback among the group
- Half-day f2f meeting may be helpful to work the process through; meeting at the Nov 09 Roundtable suggested to further Profile iterations

- Mr Buckler acknowledged and thanked all ctte members, including Drs Richard Wahl and Ronald Boellaard for their PERCIST and Netherlands Protocol guidance, for their efforts and feedback

**Imaging Biomarker Roundtable, Nov 3-4, 2009 at RSNA headquarters**

- EANM rep invited
- Drs. Ronald Boellaard and Otto Hoekstra to provide updates
- EORTC oncology activities to be disseminated among all three tech cttes

**Next steps:**

- All subctte chairs to follow-up with Dr Kinahan with poster material for RSNA 2009
- Drs Shao and Turkington to work with RSNA staff to coordinate their next subctte calls
- RSNA staff to forward the vCT and DCE-MRI Profiles to Dr Kinahan for reference
- Dr Kinahan to send draft Profile outline with sections re-arranged to Dr Sullivan and Mr Avila, Mr Buckler and subctte chairs for feedback/comment