

QIBA FDG-PET/CT Technical Committee June Update

July 30, 2009
11 AM – 12:30PM CDT
Call Summary

In attendance:

Daniel Sullivan, MD (Moderator)
Andrew Buckler, MS
Paul Christian
Patricia Cole, PhD, MD
John Hoffman, MD
Gary Kelloff, MD
Paul Kinahan, PhD
Steve Kohlmyer
Marianne Maffoni

Colin Miller, PhD
Eric Perlman, MD
Ling Shao, PhD
Scott Wollenweber, PhD
Jeffrey Yap, PhD

RSNA

Susan Anderson, MLS
Joe Koudelik

Discussion Topics

- RSNA 2009 updates
- Profiling concept

General Discussion

RSNA 2009 Annual Meeting

- **QI IB Informational Meeting** on Monday, Nov 30, 2009 at 3:00pm-4:30pm
- **QIBA Kiosk** will be located in Hall E (Education Exhibits Hall-main floor)
 - All QIBA Technical Committees encouraged to exhibit 1-3 posters based on general concepts, works in progress and future directions
 - Volunteers to staff Meet-the-Experts (MTE) sessions needed (12:15pm-12:45pm & 12:45pm-1:15pm Sun-Thr) - Q&A sessions to provide committee feedback
- **QIBA Working Meeting** on Wednesday, Dec 2, 2009 at 2:00pm-4:00pm
 - Tech Ctte breakout sessions
- QIBA Technical Committees Activities at RSNA 2009
 - The Volumetric CT Tech Ctte plans to exhibit three posters
 - 1. Profile details/process
 - 2. Experimental results and activities of all subcttes
 - 3. Roadmap of future activities
 - The DCE-MRI Tech Ctte plans to exhibit 2 posters
 - 1. General projects overview
 - 2. Phantom image acquisition and data analysis results to-date
 - Proposed for the FDG-PET/CT Tech Ctte
 - 1. Update on progress/subgroup summaries
 - 2. Refer to SNM phantom data and other association projects (e.g. ACRIN-PET work); point to publications

- 3. PK block diagram outlining experiments?
- Continued discussion on posters and activities to be agenda item on August 27 FDG-PET/CT update call

Profile Concept

- Profile must be internally consistent and provide value or clinical utility
- Profile scope
 - Whole body and cancer is current scope of FDG-PET profile with uptake (SUV) being a higher order dynamic parameter
- Profile contents based on integrated results from all subcttes
 - Claims set out what can be expected from scanners
 - Details describe how Claims may be accomplished
- Review of the **FDG-PET Whole Body** profile posted on the QIBA Wiki needed (<http://qibawiki.rsna.org/index.php?title=Profile: FDG-PET Whole Body>) by subctte chairs and round-robin feedback to each other and Mr Buckler, leading to a larger group discussion in 2 weeks time
 - Use of Wiki encouraged to assist with direct group engagement in content building ... but input in any format welcome.
 - RSNA staff (jkoudelik@rsna.org) can post MS-WORD screenshots of text to be added/modified on the Wiki
- Dr Kinahan to make the first profile review and mark-up in MS-WORD with track changes for ease of editing
 - Dr Kinahan to modify the preamble (first section) of the protocol
 - Motivation
 - Add text from May 2009 QIBA meeting (uses for FDG-PET)
 - Provide references (May 2009 JNM article applies here)
- Three key documents identified as useful resources:
 - Paper from Dr Lalitha Shankar on response to PET
 - Paper from Dominick Delbock Gilber (sp?) on Clinical PET protocols
 - Paper from Ronald Boellaard concerning the Netherland FDG-PET Protocol

Response Metrics for FDG-PET/CT

- Indecision of how to best use FDG-PET in cancer - Additional discussion concerning what QIBA is doing in FDG-PET needed
- Determining uses for FDG-PET beyond scope of QIBA
- Guidance from clinicians and scientists required to define uses for FDG-PET
 - Economic, scientific efforts, and stakeholder value need to be considered
 - Sorting by organ system deemed not necessary
- How to acquire and analyze data for accurate SUV's would be within profile scope, uses for SUV as a biomarker would not (too broad)
 - What is technically achievable is within scope
- Need straightforward Claims language with narrow focus
- Multiple FDG-PET profiles may be developed concurrently based on need, e.g. FDG-PET for metabolism response vs. FDG-PET for efficacy
- Panel discussion at ACRIN 2009 may merit planning to discuss morphological, dynamic and functional surrogate endpoints of FDG-PET as a biomarker

Next Steps

- Continued discussion on posters, activities and MTExperts to be agenda item on August 27 FDG-PET/CT update call
- Dr Kinahan will send diagram he developed to team for discussion on next call
- Dr Kinahan to modify the preamble (first part) of the FDG-PET (Wiki) protocol
 - Motivation
 - Add text from May 2009 QIBA meeting in Chicago (uses for PET content)
 - Provide references