

## QIBA FDG PET/CT Committee Meeting

Friday January 23, 2015: 9:00 – 10:00 AM

SDW Minutes

### Approximately 27 attendees

Hosts: John Sunderland: University of Iowa

Scott Wollenweber: GE Healthcare

### AGENDA ITEMS DISCUSSED

**A. Status of FDG PET/CT Profile Field Testing (~15min):** Tim Turkington led off the call with a summary of the profile field testing status. The team is on the final part of the first phase with two actions left: (1) generate a list of items for FDG PET/CT committee discussion and (2) generate a checklist that is as brief as possible (1-page?) containing essential items. Next up is phase 2 with expansion beyond 3 sites. There was some discussion about what sites should be included next and what the expectations were – this led to an action (Paul Kinahan) to draft a letter to a prospective site containing the expectations that (a) no funding is implied or involved, (b) data goes to QIBA (not publication) and (c) a timing limit on collection of said data. The draft letter will be shared back to the profile field-test working group as well as the committee co-chairs.

Eric Perleman mentioned that the QIBA steering committee raised a challenge to consider what to collect regarding field test data – is it phantom, patient, DRO, ? This will be discussed as part of a future committee meeting. There is an expectation that the work will collect some data – the CT volumetry committee is in this phase as well. Tim mentioned that the test-retest of a calibration phantom (uniform cylinder) has been included and could be part of this collected data to prove that calibration worked and demonstrate a low level of variation.

**B. RSNA 2014 summary (~10min):** John Sunderland gave a summary of the RSNA QIBA activities, and notes from the RSNA meeting were shared as part of the invitation for today's meeting. On the vendor side, there was some discussion about prioritization by importance (of the vendor 'asks') as well as providing some stability guarantee (a few years?) between updates of the requirements. Another item of note was to determine a way to share the profile more broadly beyond the QIBA web location – to consider JNMMI web-only host of the document.

**C. DRO project update (~10min):** Paul Kinahan summarized the DRO project status in 3 parts. First, the original NEMA IQ had ~18 sites with 21 platforms tested. No two results produced exactly the same outcome. Manuscript was rejected by JNMMI and sent to Radiology and is likely to be accepted with revisions. Second, version 2 added PET/CT features (alignment),  $SUV_{peak}$  measurement and region drawing fidelity measurement. Have data from a few sites – would like to discuss what extensions and next steps are on a future committee call. Third – the original DRO images have been shared via the QIDW data warehouse, and so far there were 8 requests for download. The QIBA-generated test objects (DRO or DCE-MRI) have been seen on some product brochures – so some question as to how to market the availability of such objects and/or data.

**D. Amyloid phantom (~5min):** John Sunderland summarized the ongoing activity to design and construct a newer brain phantom beyond the Hoffman phantom (circa 1990) and perhaps a digital version as well. The physical version could have a few different configurations to mimic clinical conditions (normal, MCI, AD) and the digital version could be used to test workstation analysis packages. Paul Kinahan mentioned that the University of Washington has a clinical database of ~150 cases with high-quality MRI that is already segmented (MCI, AD) that could be used to design a typical state condition.

- E. UPICT (~5min):** John Sunderland noted that Dr. Graham (Iowa) wrote a summary document to publish on the UPICT work that was submitted to JNM and publication looks favorable. Some minor modifications to bring the protocol to match better to EANM guidelines is being considered – specifically around definition of the calculation of lean body mass.
- F. Formation of a SPECT working group (~5min):** Rich Wahl took an action to organize an agenda for a call on **6-Feb-2015** to discussion attaining critical mass for a SPECT working group. All FDG PET/CT committee members were to be invited to the call. One of the items to discuss was what application is the target (similar to FDG for whole-body PET/CT) – DAT scan? A writing group would need a leader as well to pull things together and keep them moving.

### **Future Potential Agenda Items**

1. Profile field-test data: what to collect, where to store it, to whom to share it, is it beyond scope? Consider invitation to a CT volumetry committee member (co-chair) for this discussion as they have the same considerations.
2. Publication of field test results via a summary paper based upon the experience of the 3 initial sites
3. Vendor engagement and communication (prioritization, cadence of updates)
4. DRO extensions – what to add - and next steps for the project