

QIBA Perfusion, Diffusion and Flow – MRI Technical Committee Update Call

Wednesday, 22-August-2012 at 11 AM CDT (GMT-5)

Call Summary

Participants

Edward F. Jackson, PhD (Co-chair)
Marko Ivancevic, PhD (Co-Chair)
Michael Boss, PhD
Andrew J. Buckler, MS
Caroline Chung, MD
Patricia E. Cole, PhD, MD
James R. Ewing, PhD

Daniel Gembris, PhD
Rajan Jain, MD
Jiachao Liang, PhD
Thorsten Persigehl, MD
David E. Purdy, PhD
Mark Rosen, MD, PhD
Rohit Sood, MD, PhD
Daniel C. Sullivan, MD

Bachir Taouli, MD
Brandon Whitcher, PhD
Wim Corbijn van Willenswaard
Ona Wu, PhD

RSNA

Joe Koudelik
Madeleine McCoy

General Discussion

- Input on the draft NIBIB resubmission Statement of Work
 - Statement of Work (SOW) objectives need to be finalized before submitting to NIH
 - Additional draft bullets/recommendations were inserted by Dr. Jackson for harmonizing across Tech Cttes recommended, where possible, and distributed to the TC in advance of the call
 - Dr. Jackson discussed the specific PDF-MRI sections of the Performance Work Statement (PWS)
 - In Section 2.2.2 a question arose as to the definition of “manufacturer.” Drs. Sullivan, Jackson and Mr. Buckler will better define manufacturer with hardware / software / console / workstation distinctions.
 - More general text was suggested in Section 2.2.3.4; “...temperature control via ice water” will be changed to “...temperature control and or monitoring”
- Revisit the Profile Compliance Topic
 - Components from other committees to generate statements of compliance may be reviewed. For example, the CT Volumetry statement is as follows: *“Equipment, software, staff or sites may claim conformance to this Profile as one or more of the ‘Actors’ in the following table. Compliant Actors shall meet all requirements described in the corresponding Activities shown in the table. Failing to comply with a ‘shall’ is a protocol deviation. Although deviations invalidate the Profile Claim, such deviations may be reasonable and unavoidable as discussed below.”*
(http://qibawiki.rsna.org/index.php?title=CT_Volumetry_tech_ctte)
 - It was suggested to develop a work group to further discuss compliance for the DCE-MRI v2.0 Profile.
 - Drs. Jackson, Boss and Mr. Buckler volunteered and will reach out to Dr. Guimaraes as well.
 - Dr. Jackson will submit draft language for an e-mail which will include specific recommendations to be sent to the TC from RSNA Staff.
- Updates from NIBIB Phase I and Phase II Projects
 - RSNA Staff to follow-up with Dr. Ashton for participation on the 9/5/12 update call.
 - Dr. Rosen discussed updates for the ACRIN 6701 Test-Retest clinical trial, including the flip angle and temporal resolution issues. In particular, it was recommended that if SAR issues preclude the use of a 30 degree flip angle for the DCE-MRI acquisition then a slightly decreased flip angle should be used as opposed to degrading the temporal resolution. If such a flip angle modification is required at

baseline, it should be continued to be used for subsequent scans on the same subject. The flip angle used should be recorded.

- VirtualScopics analysis software updates made, but other issues previously identified by the TC and a more recently discovered Philips data scaling issue and a Siemens data processing issue remain; Dr. Jackson submitted an inquiry e-mail on one such recently discovered issue to Dr. Ashton and is awaiting his response.
- Development of the QIBA Technical Committee Posters for the 2012 RSNA Annual Meeting
 - The 2011 poster focused on the Profile. The topic for 2012 needs to be determined as well as the leader for the poster development/printing process.
 - The deadline for submitting the PPT file to RSNA HQ for printing is November 1st.
- DWI organ-specific literature review update and DWI phantom temperature measurement update (Dr. Boss)
 - Dr. Boss distributed an updated spreadsheet for tracking organ-based literature references. Volunteers are encouraged to update the spreadsheet and refer any questions to Dr. Boss.
 - Measurement strategies for phantom temperature changes were discussed. The discussion will continue offline, with Dr. Jackson and a GE staff scientist at MD Anderson providing GE-specific scanner info, Dr. Purdy providing Siemens info, and Dr. Ivancevic providing Philips info, as needed.
 - RSNA Staff will distribute Dr. Boss' instructions for the use of fields in the Literature Review Form.
 - Dr. Boss introduced Dr. Caroline Chung, from Princess Margaret Hospital in Toronto. Dr. Chung is requesting feedback from the PDF-MRI TC relating to a multi-centered potential biomarkers standard concept of study. RSNA staff to forward Dr. Chung's e-mail to the group for more detailed information.

Next steps:

- Next call scheduled for Wednesday, September 5, 2012, at 11 AM (CT)
- Drs. Purdy, Jackson, Boss, and Ivancevic to follow up off-line to discuss scanner pre-scan capabilities and RF bandwidth issues related to the DWI phantom temperature measurement project
- RSNA staff to invite participation for the compliance subgroup
- RSNA Staff to follow-up with Dr. Ashton for participation on the 9/5/12 update call
- RSNA Staff to distribute Dr. Boss' literature review form instructions
- RSNA Staff to distribute Dr. Chung's inquiry to the PDF-MRI Tech Ctte