QIBA fMRI Bias Work Group Call

Tuesday, May 27, 2014 at 10 AM CT Call Summary

Participants RSNA

James Voyvodic, PhD (Chair) Daniel Sullivan, MD Joe Koudelik

Ted DeYoe, PhD Zhiyue Jerry Wang, PhD Madeleine McCoy

David Soltysik, PhD Yuxiang Zhou, PhD

QIBA 2014 Annual Meeting Update

- Dr. Wang updated the group regarding the presentation he gave on behalf of the fMRI Tech Ctte as well as his perspective on the overall meeting
- In addition to DROs, greater attention to physical phantom models may benefit the fMRI group re compliance testing

Agenda for the ½ Day QIBA fMRI Tech Ctte T-Con on June 6th

- Dr. Elsinger is working on updating the agenda—Drs. DeYoe and Voyvodic will provide additional feedback
- Potential agenda topics reviewed
 - o Current status of the fMRI Tech Ctte current and future groundwork projects
 - Continued Profile development by identifying technology gaps requiring groundwork (working from outline
 of current gaps in profile V.1 assign sections to willing writers, note which sections are awaiting results of
 current DRO project)
 - Clarification of the Profile Claim focus (how should fMRI be done to be quantitative?) and how to achieve compliance; wording such as "recommendation" not deemed strong enough vs. "specification"; Profile wording deemed critical to engage the manufacturers
 - Strategic plan and "end-all" statement clarifying the overall fMRI Tech Ctte goal; a hard-stop needs to be identified
 - Relationship between fMRI, Resting State and DTI
- Profile goals were discussed:
 - o Profile goal is to remove all subjective aspects of fMRI and identify criteria re objective results
 - o Drs. Mohamed and DeYoe to work on a list of missing Profile components
 - The current Profile version (v1.0) focuses on the status quo, or currently accepted consensus fMRI protocols being used
 - o Profile version 2.0 is to focus more on making fMRI quantitative

DRO Update

- The goal is to receive a set of DRO data from all imaging sites for analysis of any potential format issues
- Dr. Voyvodic received three different DRO maps from MCW containing different BOLD signal thresholds
 - o Dr. DeYoe confirmed that there are no fixed thresholds
- Dr. DeYoe discussed BOLD reproducibility metrics

Next calls:

- QIBA fMRI Bias Working Group, Tuesday, June 10, 2014 at 10am CT
- QIBA fMRI Technical Committee, *Wednesday, June 4, 2014 at 11am CT*It was decided that the fMRI Tech Ctte Update Call on Wednesday, June 4th will focus on finalizing the agenda for the June 6th t-con.