

QIBA fMRI Biomarker Committee (BC) Call

Wednesday, December 5, 2018 at 11 AM CT

Call Summary

In attendance

Feroze Mohamed, PhD (Co-chair)

Jay Pillai, MD (Co-chair)

David Soltysik, PhD (Co-chair)

Cathy Elsinger, PhD

Ho-Ling (Anthony) Liu, PhD

Nancy Obuchowski, PhD

Judd Storrs, PhD

James Voyvodic, PhD

RSNA staff

Joe Koudelik

Susan Stanfa

Review of Previous Call Summary

- The 11.14.2018 call summary was approved as presented

QIBA Activities at the 2018 RSNA Annual Meeting

- Profile conformance requirements and Profile stage criteria were discussed; information on these topics can be found on the QIBA Wiki at: http://qibawiki.rsna.org/index.php/Profile_Conformance and: http://qibawiki.rsna.org/index.php/QIBA_Profile_Stages
- The checklist was discussed during the fMRI breakout group session at the Nov. 28 QIBA Working Meeting
 - The number of items on the checklist to be reduced to only activities necessary to achieve Claim
 - All feedback responses have been compiled but not everything submitted by core fMRI BC members has been addressed
 - Review of the checklist and caveats to continue as a group activity during upcoming fMRI BC calls
 - fMRI BC feedback will:
 - Inform as to which items should be removed due to being unnecessary or redundant
 - Feedback to be incorporated into the next version of the checklist and distributed to a broader base

Profile Update (CMA vs. Peak Activation)

- Discussion regarding progress reports of fMRI groundwork studies that were funded through the NIBIB grants
 - Due to privileged information contained in reports, including financial details and unpublished research data, they have not been made public
 - Staff to forward fMRI Groundwork project final reports to Dr. Elsinger for review of study findings on metrics, which informed the Motor-mapping Profile 1.0
 - Rationale for choosing Center-of-Mass Activation (CMA) over Signal Peak Activation (SPA) was discussed
 - Concern that checklist instructs to use CMA, but it is not feasible for most checklist reviewers
 - Providing data for both methods of measurement in Profile to be considered
 - Profile should provide a method for a higher bar as well as an acceptable method, which may require separate Claims
 - If CMA is the superior method (higher bar), it will be included and software vendors will be encouraged to make it available
 - Suggestion to provide guidance to calculate CMA if feasible; if not feasible, SPA to be recommended
 - The existing Claim in the fMRI Motor Mapping Profile v1.0 is based on CMA, not SPA, but peak activation (SPA) data need to be analyzed before forming a separate Claim requiring SPA
 - Until SPA data are acquired, Profile to include only CMA as the optimal requirement

- Next steps include:
 - Dr. Liu to explore peak activation method and Dr. Voyvodic to join these efforts in January
 - Additional discussion needed regarding the order of action items
 - Dr. Elsinger to reach out to Dr. DeYoe to request groundwork project information
 - Dr. Pillai's data from language studies and Dr. Voyvodic's motion DRO data to be considered
 - Dr. Voyvodic stated that it would not be difficult to calculate signal peak activation (vs. CMA) through referencing work that has been completed
 - All fMRI groundwork PIs to be invited to the Jan 16 fMRI BC call
- Past fMRI annual meeting posters are available for reference on the QIBA Wiki at:
http://qibawiki.rsna.org/index.php/QIBA_posters_from_RSNA_2018_Annual_Meeting

Next calls:

- QIBA fMRI Biomarker Cmte call – **Wednesday, January 16, 2019** at 11am CT - *New schedule of 1st & 3rd weeks in effect*
 - Will not meet on Dec 19 due to reallocation of time to MR Coordinating Cmte
 - Will not meet on Jan 2 due to holiday-related schedule conflicts
- QIBA fMRI Bias TF call – **Tuesday, December 11, 2018** at 1 PM CT - *New schedule of 2nd & 4th weeks in effect*

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