QIBA fMRI Biomarker Committee (BC) Call

Wednesday, March 17, 2021 at 11 a.m. (CT)

Call Summary

In attendance RSNA staff

Feroze Mohamed, PhD (Co-chair) Michael Boss, PhD Bram Stolk, PhD, MBA Joe Koudelik

Jay Pillai, MD (Co-chair) Cathy Elsinger, PhD Judd Storrs, PhD Susan Stanfa

David Soltysik, PhD (Co-chair) Nancy Obuchowski, PhD James Voyvodic, PhD

Shruti Agarwal, PhD

Review of Previous Call Summary

The 03.03.2021 call summary was approved as presented

Q1 2021 MR CC Meeting on February 24: QIBA 2021 Campaign (Dr. Elsinger)

- Several QIBA Profiles have been drafted and revised, tested, implemented, and publicized
- To continue this momentum, the QIBA Steering Committee developed a set of goals to assist QIBA Biomarker
 Committees in maintaining focus on the tasks most likely to increase the positive impact that QIBA Profiles can have on clinical research and practice
 - o Essential activities involve concentrating on Profile content, implementation, and communication
- BCs were encouraged to draft at least one manuscript in 2021 for peer-reviewed publication
- Sustainability of QIBA initiatives was also a prominent topic to address for 2021
- One major focus was on advancement of QIBA Profiles toward Technical Confirmation (TC) (Stage 3) in 2021
- It was requested that each BC devote some of its meeting time during 2021 to consider and discuss the QIBA goals and develop a strategy and/or plan to achieve or make progress toward each; some of the goals may need to be adapted to be congruous with the BC's status
 - o For Profiles in Stage 1 or Stage 2, BCs should strive to advance the Profile at least one Stage within 2021
 - The fMRI Profile v2.0 (Language mapping) is in early development (Stage 0), so the goal would be to aim to reach Public Comment (Stage 1) in 2021
- It is important to obtain clinical-user input re: the potential clinical impact and relevance of the imaging biomarker, and the appropriateness of the Profile Claim
- The "clinical-user perspective" may reflect clinical trial needs, clinical practice needs and payer perspective
- It was noted that fMRI Current Procedural Terminology (CPT) codes are from 2007, and there might be a need for new CPT codes in fMRI to reflect additional applications beyond presurgical mapping
- Clinical fMRI's reputation of being difficult to reproduce (i.e., not quantitative) may be a barrier to the Profile's implementation
- Clear value to the clinician is needed, e.g., need to demonstrate that fMRI can be quantitative, automated, and applicable to neurodegenerative disease and stroke
- From the vendor perspective, fMRI is seen as an exciting technique, but one that lives in the research world
- From the QIBA perspective, the focus is on presurgical mapping and the development of a quantitative measurement technique
- Discussion re: how to effectively increase fMRI Profile usability
- QIBA needs to play a more aggressive role creating a new level of standardization in efforts to increase quality and utilization of better (QIBA) fMRI techniques
- Suggestion to produce an fMRI training module

- Dr. Stolk to look into roadmap design groups
 - o It was recommended that preparation be done before initiating contact
 - Suggestion to focus on the standard product offering of the fMRI BC and how to develop a credible quantitative technique
 - Development of procedures or a protocol for sites to use to validate that their systems are working was encouraged
- Dr. Elsinger requested that the following language mapping references be distributed:
 - Stopa BM, et al. Preoperative functional MRI use in neurooncology patients: a clinician survey
 - Bargalló, N, et al. <u>Clinical practice of language fMRI in epilepsy centers: a European survey and</u> conclusions by the ESNR Epilepsy Working Group
 - Thust SC, et al. <u>Glioma imaging in Europe: A survey of 220 centres and recommendations for best</u> clinical practice
- Dr. Storrs referenced: <u>Practical aspects of functional MRI</u> (NMR Task Group #8); the AAPM Magnetic Resonance
 Sub Committee is reviewing to decide whether it:
 - o Is still relevant and up to date
 - Needs to be updated
 - Should be retired
- Dr. Stolk to review fMRI motor-mapping protocol and the AAPM report
- Additional QIBA Campaign goals include:
 - Write a concept proposal for a groundwork or clinical research project that could form the basis for an application to an external funding entity
 - Consider/discuss submitting a proposal to make a QIBA presentation at a professional meeting;
 educationally oriented presentations to non-radiology organizations are particularly encouraged
 - Discuss committee leadership succession planning and recruiting new committee members, where relevant

Next call: Wednesday, April 7, 2021 at 11 a.m. CT (1st & 3rd weeks of each month)

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