QIBA Dynamic Contrast-Enhanced (DCE) MRI Biomarker Committee (BC) Call

Monday, June 24, 2019 at 11 AM (CT)

Call Summary

Participants

Hendrik Laue, PhD (Co-Chair) Hyunki (Harrison) Kim, PhD, MBA Mark Shiroishi, MD Cristina Lavini, PhD Qing Yuan, PhD Michael Boss, PhD

Joe Koudelik Julie Lisiecki

RSNA

Moderator: Dr. Laue

2019 QIBA Annual Meeting Recap (Dr. Boss)

- The overall focus of the two-day meeting emphasized a push to get Profiles out for use and recommended inclusion of technologists in the drafting and public comment phases
- Discussion regarding the inability for Profiles to progress to next stages
 - Many are reaching the consensus but not technically confirmed stage; it is believed that greater involvement of technologists may help the Profiles to progress in real-world settings
 - Official BC sunsetting and reactivating procedures are now in place on the QIBA wiki Process Committee page for groups whose Profiles are unable to advance
 - It is hoped that these new processes will help QIBA Resources to be allocated more equitably
- Discussion regarding how QIBA conformance will be demonstrated included the processes of self-attestation and credentialing by a third party
 - An effort by the QIBA Sustainability Implementation Group (SIG) being led by Dr. Zahlmann, seeks to confirm whether Profiles are being used properly
- There was discussion regarding radiomics and AI and how they relate to QIBA as well as the need for more vendor involvement

DCE Profile Update (Dr. Laue)

- Discussion on B1-mapping correction continued from previous DCE BC calls
- Inquiries have been submitted to vendor representatives to find out whether they plan to utilize B1-mapping correction within their analysis software, though input is still needed
- The B1-mapping correction does not seem to be working properly and must be addressed in the Profile
 - o Dr. Laue to follow up offline with Dr. Nayak for additional discussion on this topic
- It was noted that the phantom from CalibreMD, purchased by Dr. Lavini's department was not working properly
 - Systematic error in terms of fill concentration was suggested as a possible issue
 - Results from B1 mapping and T1 values have been inconsistent; correction may be difficult to apply in a clinical setting
 - Variation in phantom temperature during scanning deemed responsible for B1 inconsistencies; thermal equilibrium to be discussed further
- DCE BC members were encouraged to review and comment on the Profile, with focus on Profile Sections 3.1 3.11
- Dr. Laue has adapted the CT Volumetry Profile checklist for the DCE Profile and created various actor checklists; BC members were asked to review the checklists and provide feedback
- A conformance process must be added to the Profile
- Discussion re: need for equipment vendor liaison; suggestion to contact Drs. Nayak and Kirsch
- Dr. Nayak's input re B1 mapping needed on a future call

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