QIBA Musculoskeletal (MSK) Biomarker Committee (BC) Meeting

Tuesday, October 24, 2023, at 10 a.m. CT Meeting Summary

In attendance

Xiaojuan Li, PhD (Co-chair)
Thomas Link, MD, PhD (Co-Chair)
Donald Anderson, PhD
Bruce Beynnon, PhD
Angie Botto-van Bemden, PhD
Robert Boutin, MD
Jean Brittain, PhD

Majid Chalian, MD Ruud de Boer, PhD Jonathan Doyle, MCS Maggie Fung, MEng José Garcia, BS Shivraman (Shiv) Giri, PhD

Ali Guermazi, MD, PhD Peter Hardy, PhD Gabby Joseph, PhD Jason Kim, PhD Mei Li, MD Jing Liu, PhD Chris Peng, PhD Rianne van der Heijden, MD, PhD Carl Winalski, MD

RSNA

Susan Stanfa

Topics Discussed

- QIBA transition plans, updates
- RSNA QIBA MSK Profile Stage 3 and 4 Conformance Site Testing Updates (Dr. Li)

Action Items

QIBA Transition Plans, Updates

- A future activity of the Quantitative Imaging Committee (QUIC) will be to oversee 1-3 (tbd) Biomarker
 Authoring Groups
 - o A library of QIBA Profiles will be maintained on the QIBA Wiki
 - An interim process for endorsement of Profiles to be included in the QIBA Profile Library can be found in the Profile Endorsement Criteria for New Profiles posted on the QIBA Wiki
 - Developing combined SSR / ACR endorsed cartilage composition protocol could be the next step if the MSK Profile is not selected
- Since QIBA, as an entity, will no longer exist after Dec 22, 2023, the MSK BC will rename itself the "MSK Imaging Biomarker Writing Group"
- Additional QIBA to QUIC transition details can be found in the FAQ document posted on the QIBA Wiki

Stage 3 & 4 Conformance Testing Update (Dr. Li)

- Pre-scan preparation: IRB for each site, DUA between each site and the Arthritis Foundation (AF), site info
 to be registered at OIC tracking database, template DUA will be circulated once approved by AF
- Only after DUAs are executed, can the Cleveland Clinic Foundation (CCF) receive site data, perform data analysis, and plan for publication
- If patient and phantom data collection and transfer is finished by the first half of 2024, data can be reviewed during the second half of 2024, with publication to follow in the first half of 2025

Update on phantom (Dr. Brittain)

- The assembled phantom prototype contains 12 vial and stands that will facilitate positioning in four different coils, as well as a NIST-certified embedded thermometer
- The first phantom was delivered to CCF and scanning is underway
- Calimetrix has ordered parts and is building the next round of phantoms for 11 sites and NIST, and is working with sites on agreements
- Shelf-life data on formulation batch from Nov. 2022 currently remain stable
 - o If formulation should expire, phantom vials can be replaced
 - o Calimetrix has been discussing a possible recertification service with NIST

Next Steps

- DUA template to be disseminated once finalized by the AF legal department
- QIBA/QIC will be contacted to formally request "MSK imaging biomarker writing group" endorsement by QIC
- In parallel, group leadership will reach out to ACR concerning establishing practice parameters for cartilage compositional imaging
- Next meeting: Due to the RSNA Annual Meeting during the last week of November and closure of RSNA for the holidays during the last week of December, the final RSNA staff-supported MSK BC meeting will be held off-schedule on Tuesday, December 12, 2023, at 10 a.m. CT

Participants are welcome to contact RSNA staff at qiba@rsna.org if their attendance is not reflected on meeting summaries.