

QIBA Musculoskeletal (MSK) Biomarker Committee (BC) Call

Tuesday, September 28, 2021, at 10 a.m. CT

Call Summary

In attendance

Thomas Link, MD, PhD (Co-Chair)
Michael Boss, PhD
Angie Botto-van Bemden, PhD
Robert Boutin, MD
Majid Chalian, MD
Ruud de Boer, PhD

Maggie Fung, MEng
Ali Guermazi, MD, PhD
Peter Hardy, PhD
Youngkyoo Jung, PhD, DABR
Jason Kim, PhD
Leon Lenchik, MD

Nancy Obuchowski, PhD
Edwin Oei, MD
Chris Peng, PhD
Carl Winalski, MD
Yansong Zhao, PhD

RSNA

Joe Koudelik
Susan Stanfa

MSK Consensus Profile – Update on Vote to Publish (Dr. Link)

- BC vote results: 10 yes; 0 no; 0 abstentions; 8 voting members absent (n=18)
- CC vote results: 12 yes; 0 no; 0 abstentions; 11 voting members absent (n=23)
- MSK Consensus Profile (Stage 2) and Public Comment Resolutions document to be published/posted on the Wiki

Planning for Profile [Stage 3: Technically Confirmed \(TC\)](#)

- This iteration of the Profile will be based in part on results from Dr. Li's NIH R01 grant project
- Details can be found on the [Technical Confirmation Process page](#) of the QIBA Wiki
- There has recently been significant discussion regarding clarifying the TC process within the Process Committee, Coordinating Committees, and during the Sept. 14 Virtual QIBA Annual Meeting

Sites

- The first step will be to identify three or more imaging sites for feasibility testing of the Profile/checklist; including non-academic and international sites is strongly encouraged
- Feasibility test sites not overly familiar with the Profile would provide more real-world feedback, however, MSK BC member sites would likely be sufficient as long as Profile contributors are not performing the specifications (acting as PIs)
- Dr. Boss noted that the ideal TC process would involve each site measuring patients using the protocol specified in the Profile and proceed through QA procedures and checklist requirements (running through the complete Profile for feasibility)
- Current TC process involves review and feedback of all checklist items and feedback regarding overall feasibility for the process
 - Identify 3 or more participating imaging sites
 - Have sites review and comment on all checklist specifications and the overall process feasibility
 - Respond to feedback by addressing every comment and documenting BC resolution
 - Modify the Profile or checklist if deemed necessary
 - Post revised (1) Profile and (2) Feedback Resolution Form on the QIBA Wiki for public access
- Dr. Boss advised leveraging existing relationships inside and outside of the QIBA community that are already interested in testing the Profile and explained how DWI testing sites were attained
 - Dr. Zahlmann assisted with reaching out to Invicro (UK) representatives
 - A DWI BC member at Cornell had not been involved in DWI Profile development, therefore the site was a good choice for testing
 - A team in Brazil had been awarded an RSNA R&E Foundation grant for a project involving implementation of the DWI Consensus Profile
 - Just recently, a researcher at the Ingham Institute for Applied Medical Research (Sydney, Australia) had used the Profile and contacted staff
- Dr. Link noted that there is a wide network of former research fellows in the MSK BC

- It was recommended that at least three major vendors be included, more if possible

Profiles and Checklists

- There has been a lot of Process Cmte discussion over the past few months about Profile and checklist length
 - Impact of specifications on the biomarker is often unknown and additional discussion on evaluating them is needed
 - If specifications are redundant, i.e., already encompassed in accreditation procedures, they can be incorporated into a more fundamental specification or omitted
 - A specification that has no impact on biomarker performance does not need to be included in the checklist
- As sites perform feasibility testing, they provide feedback about each specification in a checklist column containing options including, the site... “already does it,” “is capable of doing it and will do,” “is capable of doing it but will not do,” or “is not capable of doing it”
- Testing sites will also comment on the overall process/feasibility of following the checklist and the BC will record this information for transparency and respond to the site

Next Steps

- Due to schedule conflicts, there will be no call on October 26; the next call will be scheduled for November 23
- Additional phantom information from Dr. Li is needed to assess performance of T1rho/T2 sequence at different sites
- MSK BC members interested in using the MSK Profile protocol at their sites should email Dr. Link with suggestions; possible international sites that can adopt the Profile will be explored
- Feasibility test sites will be chosen, and the T1rho/T2 sequence will be installed at them
- Part of the R01 multicenter grant are Cleveland Clinics (Drs Li and Winalski), University of Kentucky (Dr. Hardy), Albert Einstein University Hospital (Dr. Peng) and UCSF (Dr. Link)
- Two additional sites that have been considered were Cleveland Clinics Florida (suggested by Dr. Winalski) and University of Washington, Medical Center (Dr. Chalian), latter is working on uploading the sequences

Next Call: Tuesday, November 23, 2021, at 10 a.m. CT [4th Tuesday of each month] - No Oct. 26 meeting (schedule conflicts)

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