

QIBA MRE Biomarker Committee Call

Tuesday, April 14, 2015 at 3 PM CT

Call Summary

Participants

Patricia Cole, PhD, MD (Co-Chair)

Richard Ehman, MD (Co-Chair)

Edward Ashton, PhD

Alexander Guimaraes, MD, PhD

Nancy Obuchowski, PhD

Mark Palmeri, MD, PhD

Suraj Serai, PhD

Claude Sirlin, MD

Sudhakar Venkatesh, MD

Gudrun Zahlmann, PhD

RSNA

Joe Koudelik

Susan Weinmann

Discussion

- Dr. Obuchowski was introduced to the group, and offered her statistical expertise
- Dr. Obuchowski explained what other biomarker committees are doing in regard to metrics selection and structuring claims statements and discussed the implications of using cross-sectional and longitudinal claims
- A decision chart that could assist the group in understanding which performance metric(s) should be used in specific use cases was reviewed
- No reference standard, or ground truth, exists for liver stiffness in humans
- Five test scenarios and minimum compliance requirements for both cross-sectional and longitudinal claims were presented
- A cross-sectional claim may be too difficult in the clinical setting because bias cannot be measured
- Dr. Obuchowski explained that other biomarker committees have reworded their claims – they want to know not only whether there is a change, but the magnitude of change as well
- The committee needs to decide whether they want to pursue the magnitude of change for their first Profile
- A two-phase approach was proposed, wherein:
 - Phase I: longitudinal claim (allow one year)
 - Phase II: refinement
- Literature will need to be used to guide the first phase
- The second Profile iteration will be easier than the first

Next steps / Action Items:

- Dr. Obuchowski's presentation slides from this meeting will be distributed to the group
- The next MRE BC call will be scheduled after the QIBA Annual Meeting
- Group members to focus on literature review based on repeatability studies
 - References may be emailed to Susan Weinmann, RSNA Staff: sweinmann@rsna.org
 - Susan is currently maintaining a citation list that will be posted to the QIBA wiki
 - The group agreed to read through the articles and then invite Dr. Obuchowski to the next meeting for further discussion
 - An efficient process for studying all of the articles was proposed:
 - An initial survey to determine which articles to include in meta-analysis
 - Assign two people to each paper
 - Track the information in a spreadsheet
 - Both people collaborate to discuss how they interpreted the data
 - The group will reconvene to discuss findings in-person at the QIBA Annual Meeting