

## QIBA MRE Biomarker Committee Call

Tuesday, April 14, 2015 at 3 PM CT

Draft 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](mailto: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