

QIBA Ultrasound Shear Wave Speed (SWS) Biomarker Committee (BC) Call

Friday, January 20, 2017; 11 AM CT

Call Summary

In attendance

Tim J. Hall, PhD (Co-Chair)

Andy Milkowski, MS (Co-Chair)

S. Kaisar Alam, PhD

Anil Chauhan, MD

Manish Dhyani, MD

Joel Gay, MSc

Albert Gee

Eleni Liapi, MD, ScM

Mike MacDonald, PhD

Kathy Nightingale, PhD

Nancy Obuchowski, PhD

Mark Palmeri, MD, PhD

Anthony Samir, MD

Theresa Tuthill, PhD

Michael Wang, PhD, MASC

Keith Wear, PhD

Hua Xie, PhD

RSNA

Joe Koudelik

Julie Lisiecki

Moderator: Dr. Hall

Review prior call summary: December 9th summary approved as submitted

Profile Updates/Open Issues

- Open issues for the Profile were discussed
- Dr. Dhyani is finalizing a Profile checklist to share with the group in the next 2 weeks
- Data analysis for the Round-6 project is in place; completion of acquisition is the only remaining component; this analysis is expected to drive the Profile
- A broader discussion of conformance would be preferred
- Phantom study manuscripts should be completed within the next month for initial submission to *Radiology*
 - Dr. Barr is interested in obtaining the phantom study results for manufacturers for comparison against a recent similar Italian study, which used viscoelastic phantoms to calibrate machines
 - Mr. Milkowski suggests shifting focus away from scanner differences to resolution of the differences amongst the manufacturer systems
 - Drs. Palmeri and Nightingale to act as main QC site by validating all system measurements for accuracy; Drs. Palmeri and Barr to follow up off-line
 - If time allows, additional analysis may be done to prove that viscoelastic phantoms are correlated to patient results
- As the most important issue for resolution is vendor agreement, BC vendor members are considering a challenge, possibly including the comparison of digital reference objects, which would provide valuable data
 - Vendor data would be protected
 - Representatives on the call from GE, Philips, and Siemens agreed this would be valuable
 - Dr. Hall referenced a cross-modality project from the MR group, led by Dr. Barboriak
 - Dr. Barboriak is working on software that can be used to calculate standard statistics for the claim as well as to compare different software
 - Dr. Hall suggested that such a software solution might be used in SWS applications to compare Duke and Mayo simulation data, looking at displacement vs. time fields
 - Dr. Hall wanted committee members to be aware of this cross-modality resource
- Questions remain as to how exactly sites will demonstrate conformance
 - Once complete, the checklist will help to guide the conformance process
 - Important to note that conformance must continue on an ongoing basis, and this may be more difficult to determine
 - Although it may not be possible to test the clinical claim, a reminder in the Profile to clinicians regarding maintaining consistency with the Profile may be helpful
- Any further comments regarding the Profile should be sent to Mr. Milkowski, and Drs. Dhyani and Garra:
 - andy.milkowski@siemens.com; Dhyani.Manish@mgh.harvard.edu; bgarra@gmail.com

Dashboard Updates: Please send Dr. Carson any relevant updates: pcarson@umich.edu. Thank you.

WebEx Calls:

- **Jan 27:** CEUS BC (*Dr. Barr*)
- **Feb 03:** US Systems/ Phantom Task Force (*Dr. Palmeri, pending availability*)
- **Feb 10:** US SWS Clinical Task Force (*Dr. Samir, pending availability*)
- **Feb 17:** US Coordinating Committee
- **Feb 24:** CEUS BC (*Dr. Averkiou*)