

QIBA Ultrasound Shear Wave Speed (SWS) Technical Committee

Friday, January 10, 2014; 11 AM CT

Call Summary

In attendance

Brian Garra, MD (Co-Chair)

Timothy J. Hall, PhD (Co-Chair)

Andy Milkowski, MS (Co-Chair)

Richard Barr, MD, PhD

Paul Carson, PhD

Jun Chen, PhD

Shigao Chen, PhD

David Cosgrove, MD

Manish Dhyani, MD

Steven E. Fick, PhD

Gilles Guennette, RDMS, RDCS, RVT

Christopher Hazard, PhD

Ted Lynch, PhD

Mike Macdonald, PhD

Stephen McAleavey, PhD

Kathy Nightingale, PhD

Mark Palmeri, MD, PhD

Nicolas Rognin, MSc, PhD

Anthony Samir, MD

Daniel Sullivan, MD

Matthew Urban, PhD

Keith Wear, PhD

RSNA

Joe Koudelik

Julie Lisiecki

Moderator: Dr. Nightingale for Dr. Garra

Agenda:

1. Review of notes from prior meeting –
2. Update on phantom materials testing – Dr. Nightingale
3. Updates on status of funded QIBA projects
 - a. Phase 2 Phantom Study – Dr. Hall
 - b. Pilot Study on Effects of Steatosis and Inflammation on SWS – Dr. Samir
 - c. Numerical Simulation of SWS Measurements in Liver – Dr. Palmeri
4. Review of other Discussions at RSNA meeting – all RSNA attendees
5. Items to bring up at upcoming Steering Committee Meeting January 23 – all members
6. Adjourn

Summary from December 9, 2013 Tech Ctte t-con was approved as written

Update on phantom materials testing

- Ultimate goal is to create phantoms representative of human liver tissue in the context of visco-elastic properties
- Phantom review at Duke is complete; all 8 phantoms will be shipped to Mayo Clinic, care of Dr. Shigao Chen, on 1/13/2014 for processing using the Voigt model for comparison of human measurements to phantoms
- According to Dr. Nightingale's (Duke) measurements, the phantom data appears to show less spread (dispersion) than seen with human data
- Dr. Hall indicated that four new phantoms with uniform material properties will be produced: two from FDA funding and two from QIBA funding
- Work will continue on the evaluation and comparison of the impact of dispersion for manufacturers
- QIDW Data repository discussion included:
 - Plan to challenge the systems to see if different ways of processing data would demonstrate variability
 - Use of synthetic data planned due to trouble with proprietary release of raw data from different manufacturers
 - Some concern about the available space within the repository and ability to work with the data later
 - Dr. Palmeri raised the question: "What DO people want to do with the data?"
 - This will be important to answer in terms of planning usage guidelines for the data repository.
 - An organized effort using simulated data could help to filter out what raw data will be needed.
 - Utilizing simulated data could aid in creating a standard format for all QIBA groups to follow for ease of use and comparison of data.
 - This will be the focus of the next System Dependencies/ Phantom call on 1/17/2014.

Clinical update

- Drs. Samir and Dhyani have begun a review of the clinical literature for confounders; Dr. Dhyani shared an update using PubMed; **Feedback is welcome for Dr. Dhyani:** MDhyani@Partners.Org

Action Items: Dr. Nightingale to send her notes from today's call to Dr. Hall / the group.

Subcommittee Updates: Detailed project updates may be found on each subcommittee's page: [QIBA wiki](#)

January Call Schedule:

<i>Date</i>	<i>Time (CT)</i>	<i>Day</i>	<i>Committee/ Subcommittee</i>	<i>Moderator</i>
01/17/2014	11:00 am CT	Friday	COMBINED: System Dependencies / Phantom System Testing & Measurement Subcommittees Call	Dr. Palmeri
01/31/2014	11:00 am CT	Friday	US SWS Clinical Applications Subcommittee	Dr. Samir