

**QIBA Ultrasound Shear Wave Speed (SWS)
Clinical Applications Subcommittee - Inaugural Call**
Monday, July 23, 2012; 1 PM CT
Call Summary

In attendance

Claude Cohen-Bacrie, MS (Co-Chair)

David Cosgrove, MD, (Co-Chair)

Anthony Samir, MD, (Co-Chair)

Paul L. Carson, PhD, (QIBA Sci. Coord)

Celine Fournier, PhD

Gilles Guenette, RDMS, RDCS, RVT

Tim J. Hall, PhD

Kenneth Hoyt, PhD

Ted Lynch, PhD

Andrej Lyschik, MD, PhD

Steve Metz, PhD

Mark Palmeri, MD, PhD

Nicolas Rognin, MSc, PhD

Jonathan Rubin, MD, PhD

Gale Sisney, MD

RSNA

Fiona Miller

Julie Lisiecki

Moderator: Anthony Samir, MD

Discussion

- Discussion of the general charge, specific duties of the group, and evolving priorities
 - Input to make technical standards more clinically relevant with guidelines for cross-sectional studies
 - Specification for what data should be gathered with guidelines for the Phantom Subcommittee

Emphasis on accuracy with focus on liver in terms of output; subsequent studies might include breast, thyroid, etc.

Review of Specific Subcommittee Duties:

- As multiple system references are available, SWS for liver fibrosis is first priority
- Criteria for measurements will vary with the modality: goal to determine how SWS will be used
 - Reconsideration of each clinical application sequentially and separately due to clinical and performance differences, with either disease or disease-category specific organization
 - Technologies are evolving rapidly, and the list of priorities should be re-visited on a regular basis, i.e., every 6 months
- Outputs being considered include a standard pathologic reporting schema or standardized case report forms
- Work with phantoms will be important to mimic tissues and determine repeatable and reproducible results
- Current phantoms are not clinically realistic and do not test the system sufficiently
 - Need for a phantom that closely mimics intermediate fibrosis and shows heterogeneity for diseased liver
- Phantoms and test objects need to be disease- or system-specific
 - A computational phantom is also anticipated.
 - The increase of contrast and its effects could be tested.
 - Currently, not much evidence exists for comparison of shear wave and transient elastography
 - Steatosis is still under consideration
 - Identifying and mitigating confounding clinical factors that might influence SWS is important
 - Gold standards need to be those that are used to make clinical decisions

Next Steps: Further discussion for group starting points and timeline, to align with other subcommittees.

Next Subcommittee Calls With Moderators Indicated:

- Phantom Subcommittee - **Monday, August 6, 2012 at 1:00 PM CT** (Drs. Hall and Garra)
- System Dependencies Subcommittee - **Friday, August 10, 2012 at 11:00 AM CT** (Dr. Palmeri)
- Clinical Applications & Biological Targets Subcommittee – **Monday, August 13, 2012 at 1:00 PM CT** (Dr. Cosgrove)

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