QIBA Ultrasound Shear Wave Speed (SWS): System Dependencies and Phantom-System Measurement Testing Task Force

Friday, September 18, 2015; 11 AM CT Tracking / Action items Notes provided by Dr. Wear

In attendance

Mark Palmeri, MD, PhD (Co-Chair)
Keith Wear, PhD (Co-Chair)
S. Kaisar Alam, PhD
Michael André, PhD
Paul Carson, PhD
Jun Chen, PhD
David Cosgrove, MD
Mathieu Couade, PhD
Steven Fick, PhD

Al Gee

Gilles Guenette, RDMS, RDCS, RVT Zaegyoo (Jay) Hah, PhD, MBA

Tim Hall, PhD Ted Lynch, PhD

Michael MacDonald, PhD Ravi Managuli, PhD, RDMS Stephen McAleavey, PhD Yasuo Miyajima, MS

Kathy Nightingale, PhD

Patrick Ploc

Stephen Rosenzweig, PhD

Ned Rouze, PhD Vijay Shamdasani, PhD Anne Shelchuk Marijean Trew

Theresa Tuthill, PhD Michael Wang, PhD, MASc

Hua Xie, PhD

RSNA

Joe Koudelik Julie Lisiecki

Moderator: Dr. Wear

Brian Garra, MD

Review of Previous Meeting Minutes

- 2. Update on new AIUM/QIBA biomarker committee (Wear). The AIUM Technical Standards Committee passed a motion to provide \$5,475 to support a year of activity for a subcommittee to develop a standard protocol for measurement of volume blood flow. The money will pay for teleconference support and a conference room for meeting at the 2016 AIUM Scientific Conference in New York City. The volume blood flow biomarker was chosen after two surveys of scientists from the AIUM Technical Standards Committee and the QIBA Ultrasound Biomarker Committee. The top ranked biomarker was volume blood flow, and the second ranked biomarker was ultrasound contrast. The QIBA Ultrasound Coordinating Committee leadership recommended that a joint AIUM/QIBA Volume blood flow biomarker committee be formed and that a QIBA US contrast biomarker exploratory committee be formed to seek Pharmaceutical Industry support.
- 3. Update on Phase II phantom study / IEEE International Ultrasonics Symposium Presentation (Palmeri). Mark Palmeri showed analysis of shear wave speed measurements for all systems for all three Phase II Set 1 phantoms and all three Phase II Set 2 phantoms as functions of depth (3 cm, 4.5 cm, and 7 cm). The committee continued to believe that Phase I and Phase II data should be reported in separate manuscripts. These data will form the basis of the poster and proceedings paper for the IEEE International Ultrasonics Symposium.
- 4. Discussion of longitudinal drift in Set 1 vs. Set 2 (Palmeri). Longitudinal measurements of Set 1 and Set 2 were performed at Duke over approximately one year. Set 1 was measured in Aug 2014, Dec 2014, June 2015, and Sept 2015. Set 2 was measured in Oct 2014, Aug 2015, and Sept 2015. Contrary to expectations, it was found that Set 1 was more stable than Set 2. Therefore, data analysis on Set 1 will be presented.
- 5. Manufacturer's experience with Duke digital phantom set on QIDW. Several manufacturers agreed that they will complete their data analysis sometime in the autumn.

Upcoming Calls (Fridays, 11 am CT):

Sept 25: Clinical Task Force

October:

Oct 2: US SWS BC

Oct 9: Systems/ Phantom Task Force

Oct 16: Clinical Task Force

Oct 23: No call – IEEE IUS 2015 and SRU are this week

 Oct 30: Optional Poster call, if needed (deadline for PPT file to RSNA)

November:

Nov 6: US SWS BC

Nov 13: Systems/ Phantom Task Force

Nov 20: Clinical Task Force

December:

Dec 11: US SWS BC

Dec 18: Systems/ Phantom Task Force