

PULSE-ECHO QUANTITATIVE ULTRASOUND BIOMARKER COMMITTEE

Agenda for Friday, August 5, 2022 11:00am – 12:00pm

Attendees: Ivan Miguel Rosado-Mendez (Co-Chair), Anthony Samir (Co-Chair), Michael Wang, (Co-Chair), Paul L. Carson, Guy Cloutier, Aaron Engel, David Fetzer, J. Brian Fowlkes, Jing Gao, Viksit Kumar, Kibo Nam, Arinc Ozturk, Theodore Pierce, Michelle L. Robbin, Stephen Rosenzweig, Jonathan Rubin, Timothy Stiles, Theresa Tuthill, Xiaohong Wang, Keith Wear, James Zagzebski, Firouzeh Heidari, Hayley Whitson, Nancy Obuchowski, Peter Edmonds

AIUM Staff: Kelly Phillips

TOPIC	COMMENTS	ACTION ITEMS
Introduction	Welcome (AS)	
Update	Update on attenuation measurement protocol (VK)	
Phantom Scanning	Status on phantom scanning at UW-Madison (IRM)	
Work Groups	Work Group Progress Reports a. Attenuation b. Sound Speed c. Backscatter d. Phantom	Co-chairs will communicate what is in and out for the first study and will propose to the whole group for comment
Discussion	Open discussion/Adjourn	

NEXT CALL	Date: September 2, 2022	
	Time: 11:00am, EST	

VK – Gave update on attenuation measurement protocol

- Revised plan proposal
 - o Inter-user reduced from 3 to 2 appraisers
 - Intra-user 2 appraisers per institution that covers inter-user requirement; each appraiser does 3 trials = intra-user requirement

of measurements



Reminders

- o Scanning order of phantoms will be randomized in each scanning session and for each appraiser
- Each appraiser will be blind to:
 - The scanning order and the expected properties of the phantoms
 - The acquisition of other appraisers (only 1 appraiser can be in the scanning room per session)

IRM -

- Water tank characterization
 - o All liver-mimicking phantoms passed the tolerance tests of attenuation and speed of sound
 - o Differences in BSC @ 3 MHz of Sun Nuclear phantoms wrt Faran Theory are below 2.15 dB
 - Next Step:

- Samples of glass beads are sized
 - Coulter counter
 - Laser diffraction sizer
- Finalize measuring BSC
- Effects of coupling media
 - The two studies concluded that the use of the different coupling media included dos not add systematic variations in the distribution of attenuation values obtained with the two imaging systems tested in these studies.
 - Recommendation: Use Baxter saline solution

TS – Phantom WG Update

- Finalizing handling of phantoms during study
- Working to support manufacturer and delivery of phantoms

SR - Sound Speed WG Update

- Submitted manuscript
- Discussing alignment with proposed gap in new appraiser schedule

TT – Backscatter WG Update

- Radiology paper awaiting proofs to review
- Work for phantom study
 - o Samsung confirmed they cannot share RF for BS coefficient
 - RF available from GE and possibly Siemens, Fujifilm and Mindray
 - o Proceeding with manual for RF collection; only slight tweak since no results recording
 - o Status of BSC computation
 - Roberto shared data with Aiguo and Claude (computation sites) and should have an update by mid August
 - o Question from Claude on inclusion of hand-held devise
 - o Collecting additional info from site on agreements with manufacturers (Firouzeh collating)