



## PULSE-ECHO QUANTITATIVE ULTRASOUND

### BIOMARKER COMMITTEE

Agenda for Friday, April 7, 2023

11:00am – 12:00pm

Attendees: Ivan Rosado-Mendez, Michael Wang, Anthony Samir, Stephane Audiere, Jeffrey Bamber, Richard Barr, Paul Carson, Todd Erpelding, Raul Esquivel, Giovanna Ferraioli, J. Brian Fowlkes, Joel Gay, Zaegyoo Hah, Timothy Hall, Aiguo Han, Amy M. Lex, Kibo Nam, Gary Ng, Arinc Ozturk, Michelle Robbin, Stephen Rosenzweig, Jonathan Rubin, Timothy Stiles, Theresa Tuthill, Xiaohong Wang, Keith Wear, Jim Zagzebski, Firouzeh Heidari, Peter Edmonds, Scott Schoen, Marco Crocco, Nancy Obuchowski

AIUM Staff: Kelly Phillips

TOPIC	COMMENTS	ACTION ITEMS
Introduction	Welcome (IRM)	
Phantom scanning	Update on phantom scanning from study sites (Dr. Barr and Hologic)	Ivan to notify Dr. Barr as to who will get the phantoms next
Ultracon	Update on PEQUS presentation at Ultracon (Arinc)	Tim will put Arinc in contact with QIBA group for educational videos
Reference phantom	Reference phantom shipping (IRM)	-Mike and Ivan to update the instructions for GE acquisition adding a statement regarding references
Work Groups	Work Group Progress Reports <ol style="list-style-type: none"> <li>a. Sound Speed</li> <li>b. Attenuation</li> <li>c. Backscatter</li> </ol>	

	d. Phantom e. Profile	
Discussion	Open discussion	
NEXT CALL	Date: May 5, 2023 Time: 11:00am, EST	

Reference phantom shipping –

- Only one set of reference phantoms is available
  - The original plan was to ship the reference phantoms with the complete set of phantoms. But with the complications with the membranes, wells and swirls, they were not
  - Alternatives:
    - Produce a second set of reference phantoms (Mirion, UW)
    - Ship the available reference set to the sites that will be acquiring reference data (RF/IQ)
      - Challenge: references may be scanned asynchronously from other phantoms
- \*\*\*Decision to move forward with option 2

Sound Speed (SR)

- Waiting to hear official decision on paper submission (UMB)

Attenuation (AO)

- Discussion on contribution to the profile

Backscatter (TT)

- Work for phantom study
  - Confirmation of standardized BSC across 3 designated sites
  - Need to formalize transfer of data and results

- MW – discuss the possibility of imaging sites to send their data to the manufacturer and then the manufacturer would upload data to RSNA warehouse – avoids having multiple sites having to submit the contributor agreement with RSNA, reduce the amount of paperwork etc
- Continuing to collect info from sites on agreements with manufacturers (Firouzeh collating)

#### Phantom (TS)

- Work continues on a prototype for experimental version of phantom materials that contains various amounts of lipids

#### Profile (IRM)

- First meeting was March 16
  - Participation from Kevin O’Donnell and Michael Boss, chairs of the QIBA process coordinating committee
  - Members – Giovanna Ferraioli, Richard Barr, Arinc Ozturk, Xiaohong Wang, Aiguo Han, Guy Cloutier, David Fetzer, Ivan Rosado-Mendez
  - Gave an overview of what a profile is
  - Goal – produce and revise the first version of the profile(s) for PEQUS biomarkers of liver steatosis to reach Stage 1 of the QIBA process (public comment)
  - Objectives
    - Use the information collected from the literature reviews to draft initial claims
    - Identify missing information needed to draft claims to obtain it from the ongoing phantom study (i.e. inter-system reproducibility coefficient)
    - Use the results of the round robin study to refine the claims drafted in (1)
    - Define the actions to be performed by the actors to confirm with the biomarker claims
  - Group Member activities
    - Review biomarker clinical context/use (based on biomarker proposal)
    - Coordinate work within their respective biomarker WG to:
      - Determine type of claims
      - Work with Nancy Obuchowski on drafting the claims
        - Compile evidence from literature to support claims
        - Determine practical level of precision
      - Identify actors that participate in claim conformance
      - Define activities that actors need to perform to conform with claims

- Discussion
  - Should we produce a common profile for PEQUS biomarkers for liver steatosis, or one profile for each biomarker?
  - Decision: independent profiles, which may be merged in the future if significant overlap exist in requirements
- Shared timeline
- Action Items
  - Reach out to Nancy Obuchowski to confirm whether she can help us with claim drafting
  - Update profile template with statements of use of biomarkers
  - Group members, review:
    - QIBA concepts, How to write a profile, QIBA profile template, QIBA claim guidance, Vetting requirements
- Next meeting: Thursday, 4/13 at 2pm ET