



AIUM/QIBA
Ultrasound Volume Blood Flow Biomarker

CALL SUMMARY 1-June-2020

Action Items in RED.

Attendance:

Stephen Pinter, Mark Lockhart, Brian Fowlkes, Oliver Kripfgans, Jonathan Rubin, Paul Carson, C-Y Lee, Rimon Tadross, James Jago, Cristel Baiu, Jing Gao, Michelle Robbin, Jim Zagzebski, Shriram Sethuraman

I. Previous Call Summary

Approved Review Summary from last call, with one request to add footnote regarding the first claim - flow is based on a phantom not human

II. Action Item

- One action left from the last meeting
 - Profile task force developed but need to send a Doodle poll to divide tasks.
 - BF will repurpose Doodle from CEUS BC
- Info on US CC
 - Dr. Carson added as co-chair
 - PEQUS now organizing with first call early June
 - Need to update Dashboard on google sheet - Chairs to update

III. Additional Discussion

- Update on Radiology Publication - Ground work is done
 - Oliver Kripfgans updated the BC
 - Radiology manuscript is accepted and will circulate within UMICH and then distribute with comments to the larger committee.
 - Radiology is offering coverage of work with Press Release

- Discussion at US CC - Shearwave manuscript was denied acceptance with Radiology because it did not include manufacture identification
 - Committee speculated that the differentiation is that VF is not commercially available, as opposed to SW.

Update on VBF Profile

- Reviewed calls from May
- Asked if anyone wants to join to let Therese know
 - Discussed accuracy of the phantom (see slide 7). Cristel agrees with statement of 0.5% and adds that his controlled bleed assessment was within 0.5 seconds of the high precision flow meter.
- Michelle Robbin will do a literature search - Maturation by ultrasound criteria
- Reviewed vessel size effects
- Reviewed 2D spectral Doppler measurement methodology
- For some systems, the default setup is max velocity (TAMXV), assuming a parabolic profile. This is a clear potential source of error in vivo. Typically used with intraabdominal rather than free looping cord.
- Automated diameter measurement - using Nuchal translucency
 - Semiautomated versus manual measurement discussed where one publication showed semiautomated had better performance.
- Intra-observer and Inter-observer 2016 study
 - 50 fetuses - two sets of measurements 30 minutes apart
 - 95% confidence interval was between 20% and 30%.

Action: Ask vendors what they use for the 2D spectral Doppler method for volumetric blood flow?