



AIUM/QIBA Ultrasound Volume Blood Flow Biomarker

Summary 14-September-2020

Attendees: Brian F, Oliver K, Jim J, Todd E, Tim H, Andy M, Jon R, Shriram S, Stephen P, Rimon T, Jing G, Jim Z, Paul C, Ravi M, Nicole L, Megan Russ, Sibon L, Cristel B.
AIUM Staff – Therese Cooper

1. Review of Previous Call Summary and approved
 - 1.1. Action Items
 - 1.1.1. Update on vendor survey of 2D spectral Doppler methods for volume flow
 - 1.1.2. Discussion of 2D spectral Doppler in QIBA Phantom – Stephen has not been able to analyze the data based on working on the profile. Postponed discussion
 - 1.1.3. Draft profile for BC by September 9 – Did not meet this goal but excellent progress has been made.
2. Update on VBF Profile Discussions
 - 2.1. Leadership of subgroups
 - 2.1.1. QA/Phantom – Jim Zagzebski and Shriram Sethuraman
 - 2.1.2. Jim Jago shifted to Quantitative Analysis
 - 2.1.3. Brian described the Profile Working Group subsections and outlined what each group is working on.
 - 2.1.4. Document Development Process – Deciding on managing the VBF Profile
 - 2.1.4.1. Brian to unify in to single draft; Review by profile task group; Review by VBF BC
 - 2.1.5. **Therese to set up the profile Basecamp group to include all of the BC**
 - 2.2. Subgroup Discussions – Reviewed Profile working group slide to remind the team what the activity subsections are.
 - 2.2.1. Clinical applications – 2 applications: Umbilical Vein Volume Flow and AV fistulas Volume Flow. Limited to these two applications because of the potential applications are so huge but we have the most experience in these two. Two sections written. Greatly reduced issues in terms of preliminary requirements for the study such as fasting in terms of patient prep in portal vein flow which is not required for the other applications (profile draft in basecamp). Patient selection preliminary requirements are straight forward for two applications selected. Initial

section 2 is available for review and section 3 (short) extracted the descriptions from the checklist the subgroup has already developed following the pattern provided from Brian Garra and the SWS checklist.

2.2.2. QA and Phantom Group

2.2.2.1. Discussed various sections of the profile due to being unfamiliar with them.

2.2.2.2. Discussed phantom design – how complicated should it be? Limitations related to this. Whether there should be stenosis in the phantom. Ultimately we would want to know how broadly applicable/complexity should the phantom be? Parabolic flow? What kind of bends it should have? Sizes, depths, and orientations of vessels. (summary notes in basecamp). The team hopes to make more progress on Thursday at their next meeting.

2.3. Image Acquisition and Analysis

2.3.1. During the call they set up a good workflow to coedit document; Basecamp and OneDrive. Sibio and Stephen have tried to keep sections as comprehensive and general as possible and leave the details specific to manufacturers in the separate protocols. Some sections may be consolidated into a 3.9 Image Acquisition section. They hope to have a draft soon to send out for comment.

3. Goal – **Submit text from other profile subgroups for review at the 10/5/2020 BC meeting.**

3.1. Boilerplates are part of the template. Don't be concerned about these placeholders but determine if there is anything related to volume flow that should replace these.

3.2. Concern was expressed about the low number of manufacturer participation in the profile development. However, committee members representing several manufacturers are present during the monthly calls and might consider a more active role.

4. Abstract(s) for Ground Work Studies – Slide 8

4.1. Funding sources to be identified by QIBA leadership

4.1.1. Includes NIH, NIST, etc.

4.1.2. NIST has interest in a “phantom library”

4.2. About 100-to-250 words is typical.

4.3. Deadline is somewhat flexible (originally Aug. 31)

4.4. Administrative support could be provided by RSNA

4.4.1. Tim Hall added: We are advocating our support for SBIR submission because of having been contacted by NCI and NIST although not restricted by these. They reached out to us. Also, thinking broadly - how to replace the funding that QIBA got from NIBIB and several strategies are under consideration. Casting a wide net to capture ideas for groundwork studies, sustainability, moving profiles through the sequence of drafting consensus, technical confirmation, and claim confirmation.

Would like ideas.

5. Matters Arising

Next Profile meeting is 9/23/2020

Next VBC BC is 10/5/2020