



## AIUM/QIBA Ultrasound Volume Blood Flow Biomarker

### Summary 27-April-2022

Attendees: Brian Fowkles, Cristel Biau, Jim Zagzebski, Jing Gao, Jonathan Rubin, Mark Lockhart, Nicole Lafata, Paul Carson, Shriram Sethuraman, Stephen Pinter

AIUM Staff: Haylea Weiss

#### 1. Review of Previous Call Summary

##### 1.1. QIBA phantom design – Is there enough parabolic flow at various depths?

1.1.1. Brian discussed QIBA phantom design and parabolic flow at various depths. Cristel B. sent a CAD drawing to Kourosh K. to review. Brian F. working with Kourosh on an orientation for the simulation that will provide depth dependence information. Tubing and string placement discussed. The question is having strings visualized on the current phantom useful. Concerned with wire target and if they have them they should be below the tube.

##### 1.2. Terminology update needed for AIUM and other organizations (ACR, ISUOG, etc.)?

1.2.1. What is in the current document related to 3D/4D US?

1.2.2. Look to the OB and GYN folks for this.

1.2.3. Brian F. has not had time to look into this yet.

#### 2. Discussion Topics

##### 2.1. Profile and Checklist Efforts

###### 2.1.1. Updates on Profile

2.1.1.1. Working primarily on new Section 4.

2.1.1.2. Brian discussed section 4.2. Paul Carson pointed out that the materials are similar to those in section 3. Brian said section 4 provides more specific guidelines on data collection. Brian said he could put a note in to check some items specific to secondary vendors. Brian changed 3 to 5 measurements each at 4 different depths and comes up to 40 distinct VBF measurements. Jim questioned why the transducer has to be stationary. Brian explained the reason why -flash motion artifact. Verbiage is similar to that of the shear wave protocol.

2.1.1.3. Discussed In-vivo VBF data. Brian asked Shriram S. if he had any comments. Shriram discussed the importance of measurements at different

depths. Depth should be 2 and 8cm and in extreme cases 10 or 11 but could be too deep for the transducer. Shriram asked about specifications for the QIBA phantom. Brian said volume flow accuracy is plus or minus 3%. Shriram said it should be periodically tested. Brian found it is in the document.

2.1.1.4. Discussed minimum and maximum testing depths. The document has 130% of the minimum depth and 80% of the maximum depth of the manufacturing specified range for that transducer. Further discussion will be needed on this topic.

### 3. Matters Arising

The next full QIBA group meeting is set for Monday, June 6 at 12:30 pm ET.

Action Item:

Brian will clean it up the document and get it ready for the Biomarker committee by 4/28/2022. May comment on the document and they will have it by tomorrow morning.