QIBA Contrast Enhanced Ultrasound (CEUS) Biomarker Committee (BC) Call

Friday, June 10, 2022; 11 AM CT Call Summary

In attendance

Mike Averkiou, PhD (Co-Chair)

Todd Erpelding, PhD (Co-Chair)

Paul Carson, PhD

Connor Krolak, BE

J. Brian Fowlkes, PhD

Christian Greis, PhD

Christian Greis, PhD

Masr Makni, PhD

Susan Stanfa

Heng Zhao, MS, PhD

Zaiyang Long, PhD

Moderator: Dr. Averkiou

Meetings

- Artimino Conference, Medical Ultrasound Technology, June 12-15, 2022 (Boulder, CO).
- 36th International Bubble Conference, Sept 1-2, 2022 (Chicago, IL).

Discussion topics

- Review and approval of call summary from May 13, 2022
- CEUS protocol technical note Task Force updates

Action items

Technical note publication

- "Recommendations for the Parameters and Imaging Settings for Contrast Enhanced Ultrasound (CEUS) Time-Intensity Analysis: A QIBA Technical Manuscript" was formatted as a special report / letter to the editor and will be submitted to Radiology
 - o Word count limit is 3,000 words with 300 words dedicated for the abstract currently at 2,000
 - o Online addenda can be used to incorporate more detail, as these do not count against the word limit
 - Radiology special reports are limited to three main bullet points, AKA "Essentials"
- CEUS BC members provided comments
 - Suggestion to insert phrase "with currently available systems and software" in the abstract and introduction
 - o "SPC/PI" to be used throughout the document when referencing contrast agent usage; this will help both international and domestic Profile users
 - Drs. Averkiou and Krolak to review the lognormal distribution function for accuracy
 - o The four parameters used are based on the previous paper and others are less reproducible
 - While CEUS is used for various applications, this document addresses liver
 - CEUS has been approved for many years and yet we are still far from translation due to the simple points raised in this technical note
 - o Image settings for perfusion quantification were put into a table that can be copied and placed at the machine for quick review when doing a case, though the text contains full details
 - Suggestion to expand on image intensity values differing from scanner to scanner
- Rather than staff distributing the updated technical note document to the CEUS BC email list, Dr. Averkiou will
 directly circulate it to co-authors one-by-one, giving each 2-3 days to reply
- The focus of the next call will not be on this document and will instead address planning for Profile writing

Action items (ongoing)

- New QIBA Profile Template to be used: focus on Checklist, streamlined introduction, and executive summary
- Suggestions for additional schematics may be sent to Connor Krolak: krolakc@uw.edu
- Endnote: For reference details in Endnote and Excel formats, please email Connor Krolak at: krolakc@uw.edu
- Drs. Barr and Wilson to draft a press release to advocate for the use of US contrast in light of CT contrast shortages and emphasize that CEUS can be used effectively for many of the same applications
- Dr. Fowlkes to work on an announcement advocating for CEUS via AIUM channels
- RSNA staff to link to / share these press releases once available via QIBA LinkedIn and the wiki

Next scheduled calls will be as follows at 11 am CT, unless otherwise noted: 7/15; 8/12; 9/9; 10/14

RSNA Staff attempt to capture all committee members participating on Zoom meetings. However, **if attendees join only by phone, or do not use a recognizable name, identification is not possible.** Participants are welcome to contact RSNA staff at qiba@rsna.org if their attendance is not reflected in meeting summaries.

Helpful Resources (QIBA wiki):

• Profiles | QIBA Profile template | How to Write a QIBA Profile | Claim Guidance | US Shear Wave Speed Profile

QIBA Process Committee:

Kevin O'Donnell, MASc (Chair): KOdonnell@MRU.MEDICAL.CANON | Michael Boss, PhD (Chair): mboss@acr.org

Task Forces for Technical Note Review

Table 1, contrast agents	Imaging settings (Industry experts)	Perfusion Quantification software
Christian Greis, PhD	Todd Erpelding, PhD	Paul Carson, PhD
Connor Krolak	Ged Harrison, BS	Todd Erpelding, PhD
Zaiyang Long, PhD	Hugo Robert, MSc	Hugo Robert, MSc
	Heng Zhao, MS, PhD	Bino Varghese, PhD
		Stephanie Wilson, MD