

**QIBA CT Angiography Biomarker Committee (BC) Call**  
25 February 2019 at 11 AM CT  
Call Summary

**On Call**

*Andrew Buckler, MS (Co-Chair)*  
Kevin DeMarco, MD  
Svetlana Egorova, MD, PhD

Alexander Guimaraes, MD, PhD  
Edward Jackson, PhD  
Márton Kolossváry, MD

Nancy Obuchowski, PhD  
Kevin O'Donnell, MASc  
Taylor Richards, PhD

**RSNA Staff**

Joe Koudelik  
Julie Lisiecki

**Moderator:** Andrew Buckler, MS

**Profile Status Discussed**

- The draft Profile is nearly complete, with conformance testing procedures in place
- Mr. O'Donnell to review the Profile for final editorial comments
  - Some minor edits are needed for the Table of Contents
    - Section 3.3 – needs a specifications section heading
    - Section 3.4 – specifications are not lining up properly (formatting issue)
    - Check that all requirements in an “active” voice, not a passive one (clearly most of them are, but just verify that none have been missed)
- Next steps are as follows:
  - Pending outcome of BC voice vote on the 3/11 call, release the Profile for Public Comment
  - Work in parallel on recruiting participants for a feasibility test and a software algorithm challenge
    - Pursuing feasibility testing and the algorithm challenge to await feedback and resolution from the Public Comment phase since revisions may be needed to the Profile

**Additional prep for Conformance Testing**

- Section 4 may benefit from some additional review regarding kVp dependence and assessment procedures, likely in second version of Profile (rather than holding this one up)
  - Drs. DeMarco, Saba, and Mr. Buckler to discuss offline

**Feasibility Testing Preparation**

- An extra column of questions will be added to the checklist to assess real-world site conformance feasibility
- Questions will assess how understandable and feasible Profile performance requirements are for specific conformance tasks
  - Yes, this is routinely performed
  - Yes, this is feasible – we will do
  - Yes, this is feasible, but we do not do this or will not
  - No, this is not feasible
- Dr. Shih (Walter Reed) has agreed to review the 2/11 version of the Profile and to consider feasibility requirements
  - Mr. Buckler to follow up with Drs. Saba, Kolossváry, Themudo, van Beek, Wintermark, and Lal regarding feasibility testing
- All eligible voters were asked to be present for the 3/11 call for the voice vote
  - This will be noted on the WebEx invitation as well
- Vendor input would be very helpful
  - Mr. O'Donnell to follow up with MITA colleagues

- Input from specific societies for public comment will also be helpful; BC members were asked to provide contact information for society colleagues/ reps
- Some recommendations included:
  - International Society for Magnetic Resonance in Medicine (ISMRM)
  - Society for Cardiovascular Angiography and Interventions (SCIA)
  - Major medical centers performing carotid CTA

### **Algorithm Challenge Preparation**

- Assessment procedures for a challenge would be difficult
- Access to reference data, e.g., phantom and annotated histology data, would be needed
- A challenge provides a safe environment for algorithms to be tested (i.e., pass/fail) with the use of anonymous IDs and access to statistical analysis and performance results
- Much follow up work is needed in matching histology slides to in vivo images
  - This work could be expensive
  - It might be possible to release data with or without positionings
  - Dr. Obuchowski to review this detail for statistical rigor based on using a small dataset and the resulting wide(r) confidence interval expected
- An impartial statistical analysis would be needed to avoid conflicts of participants
- Mr. Buckler will consider a core set of data that could be donated to QIBA for potential use on the QIDW, provided it is matched by other participants

**Next call:** Monday, March 11<sup>th</sup> at 11 am CT (voice vote to release the Profile for Public Comment)

**QIBA Wiki** CT Angiography BC page: [http://qibawiki.rsna.org/index.php/CT\\_Angiography\\_Biomarker\\_Ctte](http://qibawiki.rsna.org/index.php/CT_Angiography_Biomarker_Ctte)