

## QIBA SPECT TC<sup>99m</sup> Biomarker Committee (BC) Call

Tuesday, March 12, 2019, 2 PM (CT)

Call Summary

*Discussion points provided by Dr. Miyaoka*

### In attendance:

Robert Miyaoka, PhD (Co-Chair)

Denis Bergeron, PhD

John Dickson, PhD

P. David Mozley, MD

Nancy Obuchowski, PhD

### RSNA Staff

Joe Koudelik

Julie Lisiecki

**Moderator:** Dr. Miyaoka

### Timeline for TC<sup>99m</sup> BC Profile:

- **1Q2019:** The group is working to resolve Profile comments by the 12 March 2019 BC meeting
- **2Q2019:** Any remaining comments or loose ends to be resolved by the April 2019 BC meeting
  - Goal is to finalize the Profile for public comment release by the QIBA Annual Meeting in June 2019
- **3Q2019:** Start public comment phase
- **4Q2019:** Conformance (feasibility) testing
  - **By November 1, 2019,** aim to have conformance testing complete in order to turn the page by the QIBA Working Meeting at RSNA 2019

### Discussion: Sections Needing Work:

- Line 130: Do we keep the term “total target mass” in the Profile?
- Line 180: Changed 10% to 8%
- Line 250: Claim 1B: Discussion about TBR and bias correction. Made slight adjustment to the text
- What are the minimum number of counts in the image?
  - 2M seems low; however, might be acceptable as a minimum.
    - A lot depends upon the activity distribution.
  - Both I-123 DATscan and MAA liver mapping use ~4 mCi injection.
    - Much higher injected activity is used for bone scans and lung perfusion imaging.
  - DATscans and liver MAA mapping usually have a highly localized uptake region.
    - Not necessarily the same for some other image protocols.
    - Number recommended in Section 4.8 is 5M.
- Made edits to Tables 3.2.2 and 3.3.2.
- Discussed Table 3.5.2.
- Discussed Table 3.5.3: Dose calibrator.
  - Why mention of uniform cylinder to avoid partial volume effects.
- Section 3.6. Image Voxel Size: Need to discuss.
- Section 3.9. Minimum number of collected counts: 2M or 5M?
  - Tables remove DICOM Tag column
- Made small edits to 3.10.2.
- Need to add some text to 3.11.
- Do we need to develop a DRO for this Profile? Can we just use the XCAT phantom?
- 4.5 Is voxel noise important?
- 4.8 Typical acquired counts are much higher than 2 M. Number mentioned here is 5 M.

### Spring [QIBA Newsletter](#) article:

- Dr. Miyaoka invited Dr. Dickson to collaborate with him and Dr. Dewaraja on the article for the May *QIBA Newsletter*
- The topic is “The QIBA SPECT I-123 and TC<sup>99m</sup> Profile efforts.”

**Work Assignment Updates for Section Editors:**

- claims sans CVs: Drs. David Mozley/Nancy Obuchowski, et al ([mozley@gmail.com](mailto:mozley@gmail.com)) - *complete*
- image acquisition: Dr. Yuni Dewaraja, et al ([yuni@med.umich.edu](mailto:yuni@med.umich.edu)) – *nearly complete*
- image recon: Dr. Eric Frey, et al ([efrey@jhmi.edu](mailto:efrey@jhmi.edu)) - *complete*
- image analysis: Dr. Robert Miyaoka, et al ([rmiyaoka@uw.edu](mailto:rmiyaoka@uw.edu)) – *nearly complete*
- QA: Drs. Denis Bergeron/Brian Zimmerman, et al ([denis.bergeron@nist.gov](mailto:denis.bergeron@nist.gov)) - *complete*

**Next steps**

- All are asked to review their respective comments and resolve them prior to the next call
- Appendix E: Conformance Checklists
  - Decide on actors and separate checklists for each

**Next call** – 2<sup>nd</sup> Tuesday of April (April 9, 2019 at 2 pm CT)