

## QIBA PET Myocardial Blood Flow (MBF) Biomarker Committee (BC)

Monday, December 11, 2023, at 10 am CT

Call Summary

*Notes derived in part from Dr. Moody's slides*

### In attendance

*Rob deKemp, PhD (Co-Chair)*

*Jonathan B. Moody, PhD (Co-Chair)*

*Ian S. Armstrong, MPhys, MSc, PhD*

Charles Hayden, BS, MSEE

Nancy Obuchowski, PhD

Jennifer Renaud, MSc, BEng

### RSNA Staff

Julie Lisiecki

**Moderator:** *Dr. Moody*

### Profile updates

- Additional comments were added to section 3 focused on kinetic modeling
- Comments are also now general and inclusive of retention modeling
- Ms. Renaud to add more details regarding the phantom to section 4.1, to include:
  - Details re: the modified torso
  - Examples of plots
  - Methodology
    - Considering adding a product list link to Appendix D (model-specific parameters) in case users might want to obtain the phantom

### Nuclear Medicine Coordinating Committee Update

- QIBA wiki will remain available after the transition to QUIC
- PET MBF BC plans to continue working on Profile to reach Stage 1 (Public Comment) in 2024
- BC members will need to supply a list of targeted SMEs for comprehensive feedback
- QIBA will make their general societal list available for public comment distribution
- Public comment will be coordinated by BC members
- Dr. Boss to provide a letter template to request administrative support from other societies, and Dr. deKemp will use this to contact [ASNC](#)

### Next steps

- Drs. Moody and deKemp to try to schedule a call with their colleague at ASNC re: administrative support
- Dr. Moody to work on conformance (Section 5)
  - Will review FDG-PET/CT slides from their conformance pilot to better understand concept
  - Checklist will be broken down by actor
  - Consensus needed to decide what is absolutely required to meet the claim(s)
- Dr. deKemp is considering inquiring about a trial for test-retest repeatability to test the MBF Profile
- Make certain rationale is covered for all three tracers: rubidium ( $^{82}\text{Rb}$ ),  $^{13}\text{N}$  ammonia, and  $^{15}\text{O}$ -water
- Dr. Moody to incorporate model-specific recommendations for image acquisition and reconstruction to Appendix D
- Clarify motion correction in Table 3.8.2
- Ms. Renaud to work on the rubidium assessment procedure and edit the phantom protocol
- Dr. Moody to work on the checklist

### Paper

- BC members plan to draft a paper primarily on metaanalysis of test-retest data
- Dr. Obuchowski will be asked to review statistical aspects

### **Ongoing action items: (please strike if complete)**

- Proposed inclusion of summary table of known standards values for reference to save time for users
- **All** – consider other papers that may have supportive data

- [Dr. deKemp](#) to draft a checklist for multi-center trial in Canada to see if sites can conform to the Profile
- [Dr. Moody](#) to draft publication based on Dr. Obuchowski's meta-analysis on MBF repeatability
- [Dr. deKemp](#) to craft a bias table and review the linearity plot, looking at  $K^1$  vs. flow values
- [Dr. deKemp](#) to approach [ASNC](#) regarding future administrative support
- [Dr. Moody](#) to work on a DRO model; will look at QIBA work with DCE-MRI
- Dynamic phantom scan protocol in Section 4 Assessment Procedures to be fine-tuned by Dr. Moody

**Last call:** [Dec. 18, 2023](#), at 10 am CT (ad hoc)

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#### **QIBA Process Committee Resources**

- **Process Committee Leaders:** [Kevin O'Donnell, MASc](#) (Chair) | [Michael Boss, PhD](#) (Co-Chair)
- **Wiki:** [Dashboard](#) | [Profiles](#) | [QIBA Profile template](#) | [How to Write a QIBA Profile](#) | [Claim Guidance](#)  
[Vetting requirements](#)
- **EndNote:** To obtain access to the RSNA EndNote citations, please email: [sstanfa@rsna.org](mailto:sstanfa@rsna.org).