QIBA PET Myocardial Blood Flow (MBF) Biomarker Committee (BC)
Monday, February 13, 2023, at 9 am CT
Call Summary

In attendance		RSNA Staff
Robert deKemp, PhD (co-chair)	Charles Hayden, BS, MSEE	Julie Lisiecki
Jonathan B. Moody, PhD (Co-Chair)	Nancy Obuchowski, PhD	
Ian S. Armstrong, MPhys, MSc, PhD	John O. Prior, MD, PhD	

Moderator: *Dr. deKemp*

The following topics were discussed:
- Overview of committee progress
- Introduction of new participants

Overview
- Focusing on ^{15}O-water and rubidium for clinical context and claims
- Approach to repeatability and bias and how these are to be used in achieving the claims
- Provide guidance but avoid being too prescriptive of how measurements should be made
- Certain repeatability guarantees proper use of MBF in the clinical setting
- Expertise is needed in determining all of the measurement requirements; input needed from MBF device developers and users (Profile Section 3: Activities and Actors)
- Assessment procedures will be summarized in a site checklist
- MBF is being used clinically; so, this BC is in a position to improve and standardize routine clinical use and provide guidance for clinical trials
- The repeatability work has been done with statistical rigor; help is needed in a thorough review of bias
- Technical challenges of repeatable MBF

Claims (general summary)
1. Device and precision of a measurement
2. Cross-sectional precision of a single measurement
3. Longitudinal measurement and precision between two timepoints

Bias
- Bias is being determined by evaluation of repeatability and precision
- Factors being considered include:
    - Tracers
    - Rest-stress reserve
    - Software (tracer kinetic model; vendor agnostic)
    - Stressors

QIBA Profile Template
- Dr. Moody to provide the Word version of the streamlined QIBA Profile Template to new members
- GitHub is used for automatic version control, but this format may not be familiar to others
- There is a feature where collaborators can share discussion about different points within the document

New action items:
- Dr. Moody to provide Word version of the streamlined QIBA Profile Template and follow up via email
- All asked to take a look at the Profile draft to offer feedback
- Julie to add new participants to Dropbox folder

Ongoing action items: (please strike if complete)
- Dr. Moody to start drafting the Radiologist (Actor) checklist per the streamlined Profile template
- Dr. Moody to work on protocol design tables and share papers to shared drive

- Dr. deKemp to craft a bias table and review the linearity plot, looking at K^1 vs. flow values
- Dr. Moody to distribute Gould article and share RFIT manual
- Dr. deKemp and Dr. Lodge to review materials provided by Dr. Moody regarding GitHub and Manubot
- Dr. Moody to work on a DRO model; will look at QIBA work with DCE-MRI
- Review needed for 3.3 Product Validation, 3.4 Periodic QA, and 3.7 Pharmaceutical Administration
- Dynamic phantom scan protocol in Section 4 Assessment Procedures to be fine-tuned by Dr. Moody

Next Call: February 27, 2023, at 9 am CT (2nd and 4th Mondays) at 9 am CT

Parties interested in joining the QIBA LinkedIn page for QIBA updates should visit: https://www.linkedin.com/company/rsna-qiba

QIBA Process Committee Resources
- **Process Committee Leaders**: Kevin O'Donnell, MASc (Chair) | Michael Boss, PhD (Co-Chair)
- **Wiki Resources**: Dashboard | Profiles | QIBA Profile template | How to Write a QIBA Profile | Claim Guidance Vetting requirements
- **Inventory of QIBA tools:** QIBA LinkedIn page (please join / follow) | QIBA News | QIBA Community
- **Other:** QIBA Webpage | QIBA Wiki | QIBA Biomarker Committees | QIBA Organization Chart | Dropbox
- **EndNote**: To obtain access to the RSNA EndNote citations, please email: sstanfa@rsna.org.