

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

Monday, August 28, 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)

Hendrik Johannes (Hans) Harms, MSc, PhD

Charles Hayden, BS, MSEE

Nancy Obuchowski, PhD

John O. Prior, MD, PhD

Jennifer Renaud, MSc, BEng

RSNA Staff

Julie Lisiecki

Moderator: *Dr. deKemp*

The following topics were discussed:

- Outreach to ASNC
- BC plans for the Profile and manuscript
- Review of changes to sections 3.4 - 3.6

Discussion

- Dr. deKemp will ask the [American Society of Nuclear Cardiology \(ASNC\)](#) to consider providing administrative support after December due to their interest in standardization efforts
- Dr. Obuchowski's support will not be available after December
- The BC intends to reach public comment by December and will also work on a manuscript
- Reviewed updates to sections 3.4, 3.5, and 3.6

Profile updates

- It was decided that any tracer can be used (^{18}F , ^{13}N -ammonia, ^{82}Rb , or ^{15}O -water)
- Peer-reviewed thresholds from literature are acceptable
- Should use the torso phantom with cardiac insert
- Torso phantom is not necessary for O^{15} water – a simpler test may be used
- Use PET/CT instead of PET-CT
- No fasting is required for CMR test; otherwise, 4-6 hours fasting and abstinence from caffeine are recommended
- Adenosine is sometimes used to compensate for caffeine consumption; however, this is not always ideal
- Reviewed Dr. Prior's input regarding patient handling
- Hoping that scanner manufacturers may add max count rates to image headers to aid with dose calculation
- Precise order of tracer, adenosine or regadenoson (stressor) are important to avoid shock to patient
- Concerns discussed regarding cardiac implantable electronic device lead-associated venous obstruction
- Interaction with tracer bolus if on same side
- Arm preferred over hand for IV, or antecubital area (less pain and easier access)
- Use smallest gauge needle possible
- Add "best practice" recommendations to highlight key details, such as the side of the pacemaker that connects to the heart and capturing bolus details

Continue discussion on next call

- Sections 3.8 (Vasodilator Administration) and 3.9 (Image Data Acquisition)
- Will need to review some overlap in subject handling for section 3.8
- Radiopharm administration requirements (3.7)
- O^{15} water radiopharmaceutical recommendations needed from Dr. Harms
- Dr. Prior's recommendations needed for patient handling (3.6)
- Minimum requirements to meet the claim and best practices

Ongoing action items: (please strike if complete)

- Julie to resend wiki posting instructions to Drs. deKemp and Moody
- BC members are welcome to submit comments / questions about transition plans to the [Future Direction of QIBA Activities Form](#)
- [Dr. Moody](#) to try to find a technologist willing to discuss requirements, e.g., patient motion, etc.
- [Dr. Armstrong](#) – Review QA requirements before next call and work on section 3.4.2 (table specifications)
 - Consider adding another row for general PET scanner QA
- [All](#) – consider other papers that may have supportive data
- [Dr. deKemp](#) to provide names and email addresses of new members to be added
- [Dr. Moody](#) to draft publication based on Dr. Obuchowski’s meta-analysis on MBF repeatability
- [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 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: [September 11, 2023](#), at 10 am CT (2nd and 4th Mondays) – **new time, one hour later**

Future calls: [9/25](#), [10/9](#), [10/23](#), [11/13](#), [11/20](#), [12/11](#), [12/18](#)

QIBA Process Committee Resources

- **Process Committee Leaders:** [Kevin O’Donnell, MSc](#) (Chair) | [Michael Boss, PhD](#) (Co-Chair)
- **Wiki Resources:** [Dashboard](#) | [Profiles](#) | [QIBA Profile template](#) | [How to Write a QIBA Profile](#) | [Claim Guidance](#) | [Vetting requirements](#)
- **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.