

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

Monday, May 24, 2021 at 9 am CT

Call Summary

In attendance

Robert deKemp, PhD (Co-Chair)
Marcelo di Carli, MD (Co-Chair)
Jonathan B. Moody, PhD (Co-Chair)
Nancy Obuchowski, PhD

RSNA Staff

Joe Koudelik
Julie Lisiecki

Moderator: Dr. deKemp

Discussion

- Dr. Obuchowski shared the results of her analysis for study level estimates of wCV (within subject coefficient of variation)
- wCV has been agreed upon as the metric to be used
 - Variability increases with the measurand
 - Curvature and linear measurements were addressed
 - Coefficients were closer to zero when using wCV
 - Clinicians generally prefer wCV over log transformation measurements
 - wCV will vary over many factors (including study design), and it is important to be very specific when determining wCV for rest, stress, and flow rate
- Dr. Moody proposed an additional study of same-day 2-stressor vs. different day
- Dr. Obuchowski to create a multi-variate model to see if additional interactions between the variables exist
- Mixing all stressors together in main model suggested; if issues found, dig deeper into four separate stressor categories at a later date
- Reviewed the different study factors
 - LV region was high
 - All stressors had lower value relative to ADE
 - Possible false positive for RPP corrected stress data
 - Confounders such as age and risk factors
- Regarding variables to include or remove for the multi-variate model
 - Keep crystal x 2D (Dr. Moody to provide)
 - Keep 3D LSO
 - Remove software
 - Add kinetic model data
 - Add tracer
 - Kinetic model X tracer (interaction)
 - Submodel with rubidium and ammonia in secondary analysis, include vasodilator (stressor type)
 - Stressors (ADE/DIP/ATP vs. CPT)

Action item: Dr. Moody to provide Dr. Obuchowski with the updated categories for subject level data and groupings for stressors (4 categories)

Next Call: June 14, 2021 at 9 am CT (2nd and 4th Mondays) at 9 am CT

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