

QIBA Diffusion-Weighted Imaging Biomarker Committee (BC) Call

Thursday, July 12, 2018 at 2 PM (CT)

Call Summary

Participants

Michael Boss, PhD (Co-Chair)

Amita Dave, PhD

Dariya Malyarenko, PhD

RSNA

Susan Stanfa

Thomas Chenevert, PhD (Co-Chair)

Masoom Haider, MD

Nancy Obuchowski, PhD

Moderator: Dr. Boss

DWI Profile Update

- Drs. Chenevert and Malyarenko continue to address the few remaining issues during the process of reconciling public comments
- Dr. Malyarenko to send the latest Profile document to Dr. Boss' Gmail account
- The next step is to conduct an overall, high-level review to identify redundancies and make the Profile more concise
 - The Profile document should contain only information that is essential for quantitative Claims being made
 - Definitions of "qualified technologist", "radiologist," etc. to be removed
 - Reasonable assumptions will be made, e.g., scanner has been installed properly
 - Opportunities to delete whole sections and reconcile tables, etc. will be sought out
 - The checklist will be updated based upon the removal of unnecessary activities from the Profile
 - Dr. Chenevert to send the latest Profile draft to Dr. Boss within ~1 week for additional review; final issues will be brought back to the DWI BC for discussion
 - In addition to reducing the length of the document, another goal is to make it more digestible

MR Restructuring Update

- Discussion regarding t-con frequency and support is underway
- With the transition from DCE, DSC, DWI TFs to BCs, additional RSNA staff support has been allocated to BCs (i.e., note-taking during each t-con)
- The new BCs have still been meeting twice per month, per the previous TF schedules
- The overarching PDF-MRI BC was officially dissolved following its last meeting on June 6
- The proposal to hold rotating calls during the former PDF time slot on Wednesdays at 11 AM CT is under consideration (with each group meeting monthly)
- Suggestion for the 4th week of each month to be allocated as a cross-BC update as needed, which would be useful for those involved in more than one BC
- The priority is for the time slot to accommodate the majority of BC leaders and function with the QIBA calendar; call summaries will be posted on the QIBA Wiki for those who are unable to attend

Quantitative ADC (Dr. Haider)

- Dr. Haider was introduced as a new member of the DWI BC
- An issue that is being encountered with prostate MRI was explained
 - If using quantitative measures, there are no stable acquisition protocols over time, which makes it pragmatically difficult to use quantitative ADC
 - There is growing consensus that ADC is an important biomarker in prostate imaging, being used in day-to-day reporting to distinguish aggressive from non-aggressive disease

- In efforts to achieve stability over a long period of time, suggestion to obtain manufacturer cooperation for taking quantitative stability into consideration when developing a product
 - There is a dearth of test-retest data on prostate-specific reproducibility, but the hope is that DWI Profile work is an opportunity to gather more data
 - DWI Profile Claim and protocol will be updated with more accurate reproducibility numbers
- Before embarking on a clinical study with human patients, Dr. Obuchowski recommended conducting a phantom study to determine repeatability and bias
 - Dr. Haider found the feedback from the DWI BC on the groundwork process to be helpful; he will follow up with Dr. Boss on next steps for data acquisition
 - Due to schedule conflicts, there will not be a DWI BC call on July 26
 - With the new, rotating call schedule to begin in August, the next DWI BC call will most likely be scheduled for a Wednesday at 11 AM CT – details to be distributed when determined

Next DWI BC Call: TBD

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