

QIBA Diffusion-Weighted Imaging Biomarker Committee (BC) Call

Thursday, December 20, 2018 at 2 PM (CT)

Call Summary

Participants

Michael Boss, PhD (Co-Chair)

Thomas Chenevert, PhD (Co-Chair)

Rajpaul Attariwala, MD, PhD

Amita Dave, PhD

Dariya Malyarenko, PhD

Nancy Obuchowski, PhD

Savannah Partridge, PhD

Qing Yuan, PhD

RSNA

Joe Koudelik

Susan Stanfa

Moderator: Dr. Boss

Notes approval

- The notes from October 18, 2018 were approved as presented

DWI BC Profile Update

- Breast to be added to the Profile as a fourth organ/site (liver, brain, prostate already included), based upon data from Dr. Partridge's, "Test-Retest Repeatability and Reproducibility of ADC Measures by Breast DWI: Results from the ACRIN 6698 Trial"
- Dr. Partridge drafted the new breast sections which will be incorporated into the Profile, after which it will be released for a 30-day public comment period
- Goal is to achieve Stage 2: Consensus Stage after this public comment feedback (on the selection of text) is incorporated
- An update on the development of the checklist was provided:
 - Dr. Dave created a draft based on format guidelines from Drs. Malyarenko and Chenevert
 - Dr. Boss made minor edits to Dr. Dave's first draft
 - Checklist contains all tasks each actor is responsible for completing
 - Suggestion to make text in "requirement" column more concise
- Current DWI BC To-dos include:
 - Adjust figure captions Addition of completed checklists to Appendix
 - Check that references in checklist refer to appropriate Profile sections
 - Confirm that all requirements are listed for each actor
 - Breast Claim and protocol
 - Reference needed for ACRIN 6698 (add to endnote library, email to Drs. Chenevert & Malyarenko)
- Overview of new text added to Profile related to breast
- Section 2: Clinical Context and Claims
 - Measured change figure was added to Claim 4a: "A measured change in the ADC of a breast lesion of 13% or larger indicates that a true change has occurred with 95% confidence"
 - Explained where % in Claim 4a comes from
 - Update made to formula in Claim 4b, "A 95% CI for the true change in ADC of a breast lesion is given below, where Y1 and Y2 are the ADC measurements at the two time points..."
 - Also added to "These Claims hold when" subsection: "For breast, a whole lesion (multi-slice) ROI is used to measure ADC at each time point"
 - Other figures added to Claims Discussion section
 - RSNA staff to distribute Dr. Partridge's paper, "Test-Retest Repeatability and Reproducibility of ADC Measures by Breast DWI: Results from the ACRIN 6698 Trial" to DWI BC members for reference

- To be determined whether to include additional references beyond the very comprehensive ACRIN 6698 study which included multiple scanners
- Section 3.6: Protocol Design
 - Breast DWI protocol table to be completed
 - Ideal target vs. acceptable discussed/determined for several parameters
- Section 3.8 Subject Handling – “breast” added to discussion section
- Figures of common artifacts of breast DWI illustrated in separate subjects were added

Next Steps

- Dr. Boss to finish adding items to the DWI to-do list
- Staff to distribute materials DWI to-do list by and Dr. Partridge’s test-retest study
- New breast sections to be incorporated into the Profile and distributed for DWI BC review by Jan 11; draft to be discussed during Jan 17 t-con

Next DWI BC Call: Thursday, January 17, 2019 at 2 PM CT

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