

QIBA Dynamic Susceptibility Contrast (DSC-MRI) Biomarker Committee (BC) Call

Wednesday, August 11, 2021, at 11 a.m. (CT)

Call Summary

Participants

Bradley Erickson, MD, PhD (Co-Chair)
Ona Wu, PhD (Co-Chair)

Nancy Obuchowski, PhD
Chad Quarles, PhD

Yuxiang Zhou, PhD, DABR

RSNA

Susan Stanfa

Review of DSC-MRI Profile [Checklist for 1.5T](#) in Appendix D: Model-specific Instructions and Parameters

- Echo time (te) specification on 1.5 GE scanner was updated to align with standardized brain tumor imaging protocol (BTIP) recommendations
- Adjustments were made to vendor protocol
- Process Committee leaders, Kevin O'Donnell, MASc (Chair) and Michael Boss, PhD (Vice chair) to be consulted regarding whether a formal approval process would be needed for the replacement of 3T with 1.5T in Table D.1 Model-specific Parameters for Acquisition Devices, as the Profile Claim would be impacted

Progress Update on the DSC-MRI White Paper and Remaining Tasks

- The DSC-MRI BC [white paper draft](#) can be found in the group's Google Drive
- There have been many advances in DSC-MRI acquisition methods since the initial Profile draft was written; newer test-retest data is needed, and Claims may need to be adjusted
- DRO simulations show that variability expected as a function of flip angle is minimal
 - Dr. Quarles reported that he would obtain and add the simulation data to the white paper
- Dr. Quarles to request text from Dr. Schmainda re: the history of flip angle adjustment with SNR/Ernst angle

Action Items

Profile-related

- DSC-MRI BC roster to be referenced for vendor and CRO committee members from whom to solicit perspectives on model-specific parameters

White Paper

- Dr. Wu to edit phantom section and add Claims
- Drs. Erickson and Quarles to revise DRO section
- Drs. Boxerman and Erickson to explain 3T focus over 1.5T
- Dr. Schmainda to expand discussion on flip angle (FA) choice and dosage regimen; Drs. Bell and Quarles to revise table for 90 FA vs. 30 FA simulations
- Drs. Wu and Zhou to review proposed edits and accept or reject them
- Drs. Erickson and Wu to add explanatory text to introduction re: how and why QIBA DSC-MRI Profile recommendations differ from recommendations in other consensus papers, e.g., BTIP/ASFNR
- Dr. Erickson to upload ASFNR paper to the [DSC-MRI BC Google Drive](#)

Next DSC-MRI BC Call: Wednesday, September 8, 2021, at 11 a.m. CT

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