

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

Wednesday, November 9, 2022 at 11 a.m. (CT)

Meeting Summary

Participants

Mark Shiroishi, MD (Co-chair)

Ona Wu, PhD (Co-Chair)

Jennifer Bullen, MSc

Lisa Cimino, RT

Zhaoyang Fan, PhD

Shanshan Jiang, MD, PhD

Nancy Obuchowski, PhD

Yuxiang Zhou, PhD, DABR

RSNA

Susan Stanfa

The following topics were discussed:

- Review of DSC-MRI White paper draft to be submitted to *Radiology*
- Developing a cross-sectional Claim in the DSC-MRI Profile for clinical implementation

Action items

White Paper

- Some elements were moved to the Supplement to reduce word count
 - 1,500 words need to be removed to meet the *Radiology* word limit
 - Dr. Shiroishi to contact the RSNA Publications Department
- Dr. Shiroishi to add figure to illustrate workflow, showing ROI placements and how to find the ROI in normal appearing white matter or in the tumor enhancement region
- Dr. Shiroishi to draft the abstract
- White Paper to be circulated among co-authors once references are finalized and word count is further reduced (target date is Nov. 30)

Profile

- Steps for including a cross-sectional Claim in the DSC-MRI Profile for clinical implementation
 - Individual clinical patient data are needed to determine the standard deviation of AUC-TN (rCBV) values within an individual ROI in a single patient to:
 - estimate within a subject a truly abnormal AUC-TN value with respect to contralateral hemisphere as well as in the enhancing tumor
 - determine amount of change in rCBV values needed to be 95% confident of true abnormality
 - To determine true change, the variability in the values among the voxels from a single scan and a single subject would need to be known
 - Discussion on determining the cut point for the ratio of abnormal to normal enhancement
 - A study utilizing a phantom that mimics cerebral blood volume would be needed to determine bias
 - Once linearity is demonstrated, a cross-sectional Claim based on normalized signal can be developed
 - Dr. Wu to provide data to Ms. Bullen for her research

Next DSC-MRI BC Meeting: Wednesday, December 14, 2022, at 11 a.m. CT

Zoom link: <https://rsna-org.zoom.us/j/89423374513?pwd=UXJMMmZlRm45UzY5amxNNFNKNUNjZz09>

Meeting ID: 894 2337 4513 | Passcode: DSC

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