

QIBA Dynamic Contrast-Enhanced (DCE) MRI Biomarker Committee (BC) Call

Monday, December 21, 2020 at 11 am (CT)

Call Summary

In attendance

Caroline Chung, MD (Co-Chair)

Hendrik Laue, PhD (Co-Chair)

Todd Jensen, PhD

Ho-Ling (Anthony) Liu, PhD

Krishna Nayak, PhD

Nancy Obuchowski, PhD

Steven Sourbron, PhD

Kyunghyun Sung, PhD

RSNA staff

Susan Stanfa

Moderator: Dr. Laue

Update on DCE-MRI Profile

- On December 9, the Stage 1: Public Comment Profile was published on the [Profiles page](#) of the QIBA Wiki and distributed for a 90-day public comment period

Public Comment Submissions since opening on December 9, 2020

- Dr. Obuchowski submitted four comments through the Public Comment Online Form
 - In Section 4.2, the slope should not be expected to be exactly one and guidance should be provided regarding the acceptable distance from one
 - The recommendation is to require actors to construct a 95% confidence interval(CI) for the slope; the CI should lie between 0.95 and 1.05
 - Drs. Chung and Laue will address this and bring back to the DCE-MRI BC if needed
- Dr. Sourbron directly submitted 20+ comments to Drs. Chung and Laue via PDF document; they will forward it to staff, who will transfer the detail into the DCE-MRI Public Comments Resolution Sheet
 - It was suggested that Ktrans is not a model specific parameter; it is a physiological parameter that measures the rate of uptake of an indicator into the extravascular space
 - Drs. Chung and Laue explained that DCE-MRI BC consensus was achieved throughout years of discussion and feedback provided during regular t-con meetings
 - It was also clarified that values were derived from extensive literature review, although there has been ongoing discussion and concerns regarding the difficulty of acquiring DCE-MRI test-retest data
- Due to the dearth of literature and lack of access to vendor-specific B1-mapping sequences, B1 correction was not included as a DCE-MRI Profile requirement, however:
 - Vendors may eventually make it possible for all to perform B1 correction, and the Profile would be updated with related information
 - If test-retest data are published in the future, Profile requirements will be revisited
 - The white paper published a couple of years ago calling for publication of more test-retest data was a collaborative effort between DCE-MRI and DWI BCs; the DCE-MRI BC hopes to begin work on another paper on this topic in 2021
- The [QIN GBM Treatment Response](#) collection containing “double baseline” multi-parametric MRI images from patients with newly diagnosed glioblastoma was referenced; it was noted that B1 mapping was not included
- A follow-up call regarding GBM DCE-MRI data was proposed; Drs. Chung and Laue to consult with Process Cmte leaders regarding whether they can incorporate new test-retest data into the Consensus Profile and how this should be accomplished
- The status on groundwork project deliverables was discussed
- Drs. Chung and Laue to clean up minor public comments offline, but will bring prepare ones needing BC discussion for the Jan. 4 call

Next call: Monday, January 4, 2021 at 11 am (CT)

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