

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

Monday, November 11, 2019 at 11 a.m. (CT)

Call Summary

In attendance

Hendrik Laue, PhD (Co-Chair)

Michael Boss, PhD

Cristina Lavini, PhD

Nancy Obuchowski, PhD

Qing Yuan, PhD

RSNA staff

Joe Koudelik

Susan Stanfa

RSNA Annual Meeting - QIBA Kiosk Posters

- Dr. Boss provided an overview of the poster topic for this year re: demonstration of the value of QI
 - Content should be high-level, big picture, addressing points of QI and Profile impact to the field
 - Including protocol would be too technical for the 2019 poster format
 - Large blocks of texts should be avoided
 - Incorporating graphs and photos is highly encouraged
- Discussion regarding DCE-MRI BC poster content to be submitted via PowerPoint to MR CC Co-chairs
 - In efforts to coordinate content, the DCE-MRI BC collaborated with the DSC-MRI BC
 - Content re: Dr. Barboriak's digital reference object (DRO) work on evaluating analysis software performance (reducing variability) to be submitted by the DSC-MRI BC
 - Dr. Laue to submit screenshots re: his DCE phantom analysis software
 - Round-6 project on B1-mapping demonstrates value in terms of consistent T1 images

Profile Progress

- Profile to be considerably condensed
- During the Oct. 28 call, DCE-MRI BC members were asked to review Section 3 of the latest version of the [Profile](#)
- To avoid making edits to the text itself, feedback/comments were provided using "[Suggested Edit Mode](#);" comments were also added in the margin
- Section 3 updates made by DCE-MRI BC members were reviewed
- Section 3.6: Protocol and Reconstruction Design
 - The accurate determination of contrast agent concentration requires the knowledge of the local R1
 - R1 mapping sequence subsection added with guidance on temporal resolution and coverage, and spatial resolution and coverage
 - Signal saturation and non-linearity text was updated
 - Language was added re: R1 being less influenced in human tissue than in a phantom, according to results from Dr. Lavini's in vivo testing study
 - B1-inhomogeneity in a phantom scan is more exaggerated than in a clinical brain scan
 - Using a phantom for R1 testing is more sensible than using true tissue; B1 correction with a human brain scan improves results only minimally
 - T1 errors with a phantom will be greater than with true tissue; T1 error has a much larger impact on a scan than does B1 correction; range of acceptable T1 values to be investigated

- Section 3.8 Subject Handling
 - Speed of injection should be noted and maintained in all successive scans (suggestion by Dr. Lavini)
 - Could also be in Section 3.12: Image Data Distribution; not noted in DICOM
 - Time intervals from pre- to post-intervention scan
- Subsection 4.1.2: Testing sequence for signal saturation and intensity subsection was added to Section 4.1: Assessment Procedure: R1/T1 Mapping accuracy

Reminder:

- Please [RSVP for the Dec. 4 QIBA Working Meeting](#) during the 2019 RSNA Annual Meeting
- Please [sign up for the RSNA 2019 MTE Sessions](#) at the QIBA Kiosk:
 - Type in your name next to the presentation time slot that works for you (we encourage that each 30-minute time slot is filled by at least one committee member)
 - Simply close out of the document (there is no save button and changes will automatically save)

NEW! Visit the QIBA Citations EndNote Library! Details can be found on the [QIBA Wiki Education page](#)

Next call: Wednesday, November 25th, 2019 at 11 a.m. CT (1st & 3rd weeks of each month)

RSNA Staff attempt to identify and capture all committee members participating on WebEx calls. However, **if multiple callers join simultaneously or call in without logging on to the WebEx, identification is not possible.** Call participants are welcome to contact RSNA staff at QIBA@RSNA.org if their attendance is not reflected on the call summaries.