

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

Monday, August 17, 2020 at 11 am (CT)

Call Summary

In attendance

Caroline Chung, MD (Co-Chair)

Hendrik Laue, PhD (Co-Chair)

Michael Boss, PhD

Hyunki (Harrison) Kim, PhD, MBA

Cristina Lavini, PhD

Annelise Malkus, PhD

Krishna Nayak, PhD

Nancy Obuchowski, PhD

Mark Shiroishi, MD

RSNA staff

Joe Koudelik

Susan Stanfa

Review of the [DCE-MRI Profile](#) continued

Section 3.12:

- Discussion re: a subsection titled “Storage,” added by Dr. Fedorov to replace the “Floating Point” section in Appendix
 - DCE-MRI BC members agreed to rename this subsection to, “Image Analysis Results”

Section 3.14: Image Interpretation

- Recent updates were reviewed
- Dr. Shiroishi to search for and add head and neck references; prostate references need to be added as well

Appendices (some have been renamed)

Appendix C: Detailed description of Image Analysis – Methods to be used

- D: Determine a vascular input function
 - DCE references on reproducibility to be added
 - A population averaged VIF using values derived from previous studies; common VIF include the Weinman function
 - However, it is not recommended in the Profile, as it does not take into account the initial VIF peak
 - Consensus to include Weinman function for now, and wait to receive public comments on this issue
- F: Identify the region or regions of interest: Dr. Shiroishi to add a few sentences related to variability in ROI segmentation

Appendix E: Signal Linearity

Testing sequence for signal vs. Gadolinium (GD) concentration linearity subsection

- Discussion re: whether length of text should be reduced or omitted
- Consensus that this technical detail needed to be moved from the body of the Profile to an Appendix
 - This detail may be helpful for those to reference for additional information, however, supporting references need to be included
 - Dr. Lavini offered to identify references supporting scanner sequence instability
- The BC hopes to receive public comment feedback related to this subsection

Appendix F: Vendor specific B1+ Mapping information for 3 Tesla (and higher)

- Minor edits were made

Appendix G: Software packages for analysing DCE-MRI

- Dr. Laue added a list of software packages and BC members were encouraged to add additional recommendations
- The list will be moved to the [DCE-MRI Committee page](#) on the QIBA Wiki and a link to the Wiki will be added to this Appendix

Appendix H: Conformance Checklists

- Dr. Chung made updates and BC members will be asked to review the tasks for feasibility

Next Steps

- Dr. Chung to update and reformat the Profile document for final BC review by the Aug. 31 call
- Official public comment version of the DCE-MRI Profile to be submitted to RSNA Staff
- RSNA Staff will circulate an email to BC members with [voting privileges](#) to obtain approval that the content of the Profile meets the [criteria for the stage](#)
 - The email will contain a link to the [Ballot](#) and the Profile will be attached
 - The ballot period is typically ~2 weeks to allow time to review the full Profile text
 - An email will also be sent to BC members without voting privileges, to notify them that the Profile has entered the approval stages for public comment
 - An MR CC vote will follow

Next call: Monday, August 31, 2020 at 11:00 am (CT)

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