

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

Monday, September 14, 2020 at 11 am (CT)

### Call Summary

#### In attendance

Caroline Chung, MD (Co-Chair)

Hyunki (Harrison) Kim, PhD, MBA

Nancy Obuchowski, PhD

Hendrik Laue, PhD (Co-Chair)

Cristina Lavini, PhD

#### RSNA staff

Joe Koudelik

Susan Stanfa

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

- References and all Profile sections have been completed
- Remaining open issues and questions were discussed; public comment feedback to be sought
- Discussion re: delineating ROIs for DCE-MRI
- Discussion re: which Vascular Input Function (VIF) is recommended - population average vs. patient-specific
  - The Profile recommends a population average VIF when the patient specific VIF is not available
  - An alternative suggestion is population based VIF modified for each individual patient, but test-retest data for this approach are not yet available (H Kim, Mag Reson Imaging, 2018)
- While the Claims are based on older, published protocols, the Profile includes organ-specific recommended protocols that may be state-of-the art
  - Recommendation that Profile users work with vendors on translating test-retest data-driven protocols into modern protocols
  - The Profile will be updated as additional test-retest data become available
- Sequence tables were moved to Section 3.6: Protocol and Reconstruction Design
- Arterial Input Function (AIF) in the text was replaced with VIF
- Feedback is needed on whether the conformance checklist includes the necessary and feasible requirements for this Profile
- Since no publications with test-retest data for prostate are available, B1 correction will be a recommendation in the discussion without a link to the Claim definition
- Taking dosage and relaxivity of the contrast agent into account, feedback is needed on whether the dose of gadolinium (Gd) could be reduced to account for GDD
- Feedback is needed regarding whether there are other body sites (with available test-retest data) that should be prioritized for inclusion in the DCE profile
- Only minimal use of parallel imaging for DCE-MRI is recommended, but input on this is welcome
- A direct relationship must be clear re: B1 correction at 3T energy
- The DCE-MRI BC recommends not to use view sharing techniques to speed up DCE-MRI acquisition, as there is insufficient information about compressed sensing and radial imaging to provide a recommendation

#### Next Steps

- Dr. Chung to follow up with Dr. Shiroishi regarding the open issue of how to delineate ROIs for DCE-MRI
- Dr. Chung to request a final Profile internal BC review by Drs. Boss, Guimaraes and Rosen
- A line-numbered, official Stage 1: Public Comment PDF version to be submitted to staff and proposed public comment announcement message to be approved
- RSNA Staff to circulate an email to BC members with [voting privileges](#) to obtain approval (vote-to-release) that the content of the Profile meets the [criteria for Stage 1: Public Comment](#)
  - The email will contain a link to the [ballot](#) and the lined, PDF Profile version will be attached

- Voting members will be asked verify whether this Profile conforms to [Profile Guidelines](#), and is of sufficient quality to release for public comment
- The ballot period is typically ~2 weeks to allow time to review the full Profile text
- BC members without voting privileges, will be informed that the Profile has entered the approval stages for public comment
- An MR CC vote will follow

**Next call:** Monday, September 28, 2020 at 11:00 am (CT)

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