

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

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

Call Summary

In attendance

Caroline Chung, MD (Co-Chair)

Michael Boss, PhD

Nancy Obuchowski, PhD

RSNA staff

Joe Koudelik

Hendrik Laue, PhD (Co-Chair)

Hyunki (Harrison) Kim, PhD, MBA

Qing Yuan, PhD

Susan Stanfa

Moderator: Dr. Laue

Profile Progress

2.3: Clinical Interpretation

- Discussion continued re: cut point language necessary to demonstrate real change
- In Claim 2a, to demonstrate significant change, choosing a cut point well above or below 55 recommended; Dr. Laue changed this number to 65%

3.5: Periodic QA Section

- Discussion re: "Phantom imaging data analysis" subsection
 - Currently states: "Phantom data should be analyzed in a uniform manner, using the software provided by QIBA. The software can be downloaded from the QIBA data warehouse."
 - Text to be updated to allow different software for R1 comparison and test with DRO T1; i.e., allow for alternative paired phantom + software solutions to prove conformance
- Discussion re: "Phantom imaging for R1" subsection
 - The NIST Phantom-lending library is referenced, but additional specifics are needed re: this program; Dr. Boss to investigate whether the accompanying analysis package can handle DROs
 - Dr. Laue to send the latest DCE analysis software package to Dr. Boss
 - Recommendation to resolve these issues in parallel with the public comment period, rather than delaying the release of the Profile
 - MR CC discussion topics should be submitted to Dr. Boss by March 2, for the March 5 MR CC meeting

3.6.2: Protocol and Reconstruction Design - Brain Specification Table

- Contrast agent and dosages need to be confirmed
- Suggestion to gather dosages from those who have worked on the tables; Dr. Laue to reach out to specific BC members
 - Breast dose – Drs. Huang and Shiroishi
 - Prostate dose – Dr. Rosen
 - Brain dose – Drs. Chung and Laue

3.7: Subject Selection

- Sentence, "If a patient needs adjustment in gadolinium dose and bolus injection rate beyond the recommended conditions listed in this Profile, the Claims of the Profile may not apply," to be retained

3.8: Subject Handling

- Discussion re: whether a reference is needed for, “Injection through port-a-catheter or permanent indwelling catheter is not recommended.”
- This was deemed a clinical call or would be specified by an institutional guideline and may not be found in literature; consensus was to refrain from endorsing a best practice
- It was noted that injection site was already specified in the Claim; the sentence was replaced by, “What is critical is that the same injection site (whenever possible) and catheter size needs to be used for repeated studies.”

3.9 Image Data Acquisition

- Information already included in protocol design was removed
- Discussion whether anatomic imaging sequences are required to meet the Profile Claims; the following text was added: “In addition to the sequences listed in the protocol design, it is common practice to obtain a localizer sequence followed by anatomical sequences as T1 or T2 weighted first.”

Other items:

- Dr. Laue to submit question re: NIST phantom lending program, e.g., phantom availability, analysis package, and target start date
- Dr. Kim invited those attending the ISMRM in Sydney to contact him to coordinate a meeting; QIBA members were also requested to present – Dr. Boss to put him in touch with a study group
- It was noted that if the DCE-MRI Profile were released this Spring/Summer, there will be four MR Profiles that have reached Stage 1: Public Comment or greater

Next call: Monday, March 2, 2020 at 11 am CT (1st & 3rd weeks of each month)

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