QIBA Dynamic Contrast-Enhanced (DCE) MRI Biomarker Committee (BC) Call
Monday, July 20, 2020 at 11 am (CT)
Call Summary

In attendance

Caroline Chung, MD (Co-Chair)   Cristina Lavini, PhD

Hendrik Laue, PhD (Co-Chair)   Nancy Obuchowski, PhD

Michael Boss, PhD

RSNA staff

Susan Stanfa

Review of the [DCE-MRI Profile](#) continued
- Remaining outstanding comments were reviewed and addressed
- The majority of the main body of the Profile has been finalized; missing references to be added
- There are two assessment procedures left to finalize

Section 4.1 Assessment Procedure: R1/T1 Mapping accuracy and signal saturation
- Drs. Nayak and Kim to review 4.1.3 Discussion on B1 mapping subsection

Section 4.2: Assessment Procedure: Image Analysis Software
- Dr. Laue to confirm that the software referenced can be downloaded

Appendices
- Appendix A: Acknowledgements and Attributions – list of contributors will remain where it is currently situated
- Appendix B: Claim definition details – cautioned against adding additional studies and further increasing overall length of Profile document; current level of detail was declared sufficient

- Appendix C: Detailed description of Image Analysis – Discussion re: methods to be used
  - A. Apply time-series motion correction to the dynamic data: text to be reworded
    - Updates were made to organ-specific details
    - Head and Neck details to be reviewed by Dr. Shiroishi

  - B: Generate a native tissue T1 map using the VFA data: long linear fitting to be added to the equation
  - C: Convert tissue DCE-MRI signal intensity time-course data to concentration: equations to be rewritten; table of different relaxavities of various contrast agent to be added
  - D: Determine a vascular input function: references were added, and text may be shortened
  - E: Calculate the DCE-MRI imaging biomarker parameter maps: discussed removing this method, but decided to retain and wait for public comment feedback
  - F: Identify the region or regions of interest: text to be reduced

- Appendix E: Spreadsheet on reproducibility data
  - Dr. Laue to reach out to Steve Russek at NIST to confirm details of the phantom lending library
  - The table may be redundant, as the details it contains are available elsewhere; it was suggested that it may be more appropriate for a review paper
  - Consensus to retain the table, noting it in Open Issues at the beginning of the Profile

Next Steps
- Recommendation to add issues to "Open Issues" section; also suggested was to include text in the public comment announcement to bring focus to specific areas of uncertainty
- There will be one final, extended call on August 3, which will entail a final review of the Profile

- DCE-MRI BC Co-chairs to submit the profile document 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 have 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

Next call: Monday, August 3, 2020 at 11:00 am – 12:30 pm (CT)