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

Monday, April 24, 2023, at 11 a.m. (CT)

Meeting Summary

In attendance			RSNA staff
Hendrik Laue, PhD (Co-chair)	Ararat Chakhoyan, PhD	Nancy Obuchowski, PhD	Susan Stanfa
James O'Connor, MD, PhD (Co-chair)	Caroline Chung, MD	Rianne van der Heijden, MD, PhD	
Nima Ameli, MD	Cristina Lavini, PhD		

Topics Discussed:

- Update on metanalysis results test-retest publication plans
- Remaining issues in the profile resolution sheet with reference to the current DCE-MRI Profile
- Profile comments related to Section 4.2 Assessment Procedure: Image Analysis Software

Action Items:

- Dr. O'Connor provided details on the data compiled for the repeatability analysis
 - The systematic review yielded 16 studies, including 6 publications and 10 University of Manchester in-house ICR data
 - Data on 3-4 additional studies are anticipated for a total of ~20 studies
 - Overall assessment of repeatability was done on these studies containing ~350 patients and ~500 lesions, and confidence intervals on those data were calculated
 - Sub-group analysis by AJCC cancer type, e.g., ovarian, colorectal, lung, prostate, etc., was performed and initial results suggest differences in wCV with some of the tumor subtypes
 - Once the last few data points are received, a reanalysis of the complete data will be done, and slides will be distributed
 - This will be the largest metanalysis on functional imaging data ever conducted
 - A call with the *Radiology* editor-in-chief was suggested to discuss feasibility of publication
- Discussion on section 4.2, comment on row 106 regarding DROs noise level not matching text
 - The QIDW offers a variety of DCE DROs, but none of them match the description (lowest sigma in the Tofts_v12 set is 2)
 - Adjusted prostate T1 mapping DRO data were requested from Dr. Barboriak

Next Steps:

- Staff to determine a date during the third week of May for Dr. O'Connor to share final metanalysis results and to discuss plans for the corresponding publication
- Due to schedule conflicts, a meeting will not be held on Monday, May 8, 2023, and the next meeting date TBD
- <u>DCE-MRI Profile v2.0</u> to be completed, followed by BC review, and vote-to-publish the Profile as Stage 2: Consensus followed by an MR CC vote

Participants are welcome to contact RSNA staff at <u>QIBA@RSNA.org</u> if their attendance is not reflected in meeting summaries.