

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

Monday, June 12, 2023, at 11:30 a.m. (CT)

### Meeting Summary

In attendance			RSNA staff
Hendrik Laue, PhD (Co-chair)	Cristina Lavini, PhD	Nuria Porta, PhD	Susan Stanfa
James O'Connor, MD, PhD (Co-chair)	Sina Nazemi, MD	Nivetha Sridharan (PhD student)	
Nima Ameli, MD	Nancy Obuchowski, PhD	Thomas Taylor, MSc	
Caroline Chung, MD			

#### Topics Discussed:

- Repeatability metanalysis results

#### Action Items

- Drs. O'Connor and Porta shared final repeatability metanalysis results
- Research question(s): How repeatable is tumor median  $K^{trans}$  (derived from DCE-MRI)? Specifically:
  - (1) What literature values are reported for repeatability statistics?
  - (2) What is the overall wCV for median  $K^{trans}$  across all available data?
  - (3) Are there significant differences in wCV for AJCC cancer type, TNM classification, body compartment location, MR acquisition or analysis factors?
- Comprehensive review of 18 studies with a combined 343 patients and 480 lesions
- Study level results were shared, and statistical approaches were discussed
- Conclusions:
  - Substantially more data exist than realized
  - Overall wCV estimate was 21.18% with 95% confidence interval with an upper bound of 22.60%
  - Few differences in wCV by AJCC, TNM or lesion location

#### Next Steps:

- Additional analysis to be done
  - Determine whether  $K^{trans}$  is dependent on the precision measure, vendor, etc., vs. the wCV
  - Categorical MR acquisition, e.g., vendor, field strength, model, and AIF
- The next DCE-MRI BC meeting will be held on **Monday, June 26, 2023, at 11:00 a.m. – 11:50 a.m. CT**
- [DCE-MRI Profile v2.0](#) to be completed, followed by BC review, and vote-to-publish the Profile as Stage 2: Consensus followed by an MR CC vote

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Participants are welcome to contact RSNA staff at [QIBA@RSNA.org](mailto:QIBA@RSNA.org) if their attendance is not reflected in meeting summaries.