

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

Monday, March 13, 2023, at 11 a.m. (CT)

### Meeting Summary

#### In attendance

Hendrik Laue, PhD (Co-chair)  
Cristina Lavini, PhD

Nancy Obuchowski, PhD

Thomas Taylor, MSc

#### RSNA staff

Susan Stanfa

#### Topics Discussed:

- Remaining issues in the [profile resolution sheet](#) with reference to the [current DCE-MRI Profile](#)
- Profile comments related to Sections 2.2: Claims, 2.3: Clinical Interpretation and 4.2 Assessment Procedure: Image Analysis Software, Site Checklist

#### Action Items:

- After conducting a simulation, Dr. Obuchowski determined that the confidence interval should lie between .95 and 1.05 and the related comment was deemed resolved
- With Claims being strongly dependent on the wCVs, an assessment of the wCV and criteria for whether the actor has met the requirement was recommended
  - A sensitivity calculation for Ktrans from T1 needs to be done to determine how well the software reproduces T1; T1 mapping software package recommendations need to be included in the Profile
  - Mr. Taylor referenced the following test-retest DCE-MRI datasets re: Cancer Informatics for Cancer Centers (ci4cc)
    - [QIN GBM Treatment Response](#): this collection contains “double baseline” multi-parametric MRI images collected on 54 patients with newly diagnosed glioblastoma
      - Data were provided by Dr. Elizabeth Gerstner and Dr. Kalpathy-Cramer (MGH) as part of their participation in the Quantitative Imaging Network
  - [Repeatability of tumor perfusion kinetics from dynamic contrast-enhanced MRI in glioblastoma](#)
    - This discussion was tabled for additional consideration
- Underlying assumptions / justifications, e.g., wCV being assumed will be added to the last two Claims

#### Next Steps:

- Comments on the following rows of the [profile resolution sheet](#) will be discussed
  - Row 72: Requirement for T1 performance metrics (Site Checklist, Page 50)
  - Row 106, 107: DROs noise level not matching text, DRO 1000 ms not suitable for prostate
  - Row 115: combined perfusion and registration method (look up suitable publications)
- [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

**Next meeting:** Monday, March 27, 2023, at 11 a.m. (CT) [2<sup>nd</sup> & 4<sup>th</sup> Mondays of each month]

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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.