

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

Monday, May 10, 2021 at 11 a.m. (CT)

### Call Summary

#### In attendance

Caroline Chung, MD (Co-Chair)

Hendrik Laue, PhD (Co-Chair)

Wolter de Graaf, PhD

Hyunki (Harrison) Kim, PhD, MBA

Nancy Obuchowski, PhD

James O'Connor, MBBS, PhD

Steven Sourbron, PhD

Rianne van der Heijden, MD, PhD

Divya Yadav, MD

#### RSNA staff

Joe Koudelik

Susan Stanfa

#### Update on DCE-MRI Profile

- The [Public Comment Resolutions Sheet](#) was referenced to address comments; details on resolutions reached through committee discussion and consensus are included
- DCE-MRI BC members are welcome to work on edits to the [Profile](#)

#### [Open Source Initiative for Perfusion Imaging \(OSIPI\)](#)

- This is an initiative of the ISMRM perfusion study group with a mission to:
  - Promote the sharing of perfusion imaging software in order to eliminate the practice of duplicate development
  - Improve the reproducibility of perfusion imaging research
  - Speed up the translation into tools for discovery science, drug development, and clinical practice
- The work in OSIPI is planned around 6 specific aims that include the building of a software inventory, a library of code snippets, a data inventory, reporting guidelines, education and exchange and benchmarking
- OSIPI welcomes new members to join its [task forces](#)
- Please visit the [2020-2022 OSIPI Roadmap](#) for more details on deliverables, challenges, and dates
- OSIPI Chair, Dr. Sourbron and Dr. van der Heijden, member of the OSIPI Task Force 1.2: DCE/DSC software inventory can be contacted with questions

#### The following comments submitted during the public comment period were addressed:

James O'Connor, MBBS, PhD | EIBALL/The University of Manchester (UK)

- Discussion re: whether performing QA with phantom scanning on an annual basis is often enough
  - QA should always be conducted following software updates and recalibration
  - Other factors to consider include the machine/vendor, scanner availability, personnel availability; suggestion to conduct QA more frequently during a study
- Discussion re: whether to require, rather than strongly recommend, use of the same machine when patients undergo sequential repeated scanning over multiple visits
  - Scanner availability may be an issue; using the same machine may be a challenge for some situations
  - An explanation will be added re: the potential differences between machines (e.g., settings) and the impact of not using the same scanner (e.g., reproducibility decreases as variability increases)
- Confirming that T1 values are within the published reference range will be specified in QA section of the Profile as a component of conducting image QA; if the T1 value is incorrect,  $K^{\text{trans}}$  will be impacted
- Dr. Laue to reach out to Dr. Boss for guidance on incorporating QC procedures into the DCE-MRI Profile
- Staff to distribute links to papers from Dr. O'Connor that contain repeatability data
  - It was noted that data are buried in supplementary materials of some of the papers
  - Although data exists, they may not as be as readily accessible as those in DCE-MRI Profile references
  - These publications will be discussed during an upcoming DCE-MRI BC meeting

**Next call:** Monday, May 24, 2021 at 11 a.m. (CT) [2<sup>nd</sup> & 4<sup>th</sup> Mondays of each month]

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