

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

Monday, February 8, 2021 at 11 am (CT)

Call Summary

In attendance

Caroline Chung, MD (Co-Chair)

Hendrik Laue, PhD (Co-Chair)

Cristina Lavini, PhD

Steven Sourbron, PhD

Rianne van der Heijden, MD, PhD

RSNA staff

Susan Stanfa

Discussion of public comments on DCE-MRI Profile

- The [Public Comments Resolution 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](#)
- Review of Dr. Sourbron's comments began; those discussed on February 8 all relate to the Executive Summary
- Ktrans is not a model specific parameter; it is a physiological parameter that measures the rate of uptake of an indicator into the extravascular space
 - Consensus was reached that Ktrans is a true (physiological biomarker), but there is no way to validate it; the Tofts 1999 method is used to calculate it as a gold standard and it is described in this section
- The Profile states "DCE-MRI is recognized as a potential method to provide predictive, prognostic and/or physiological response biomarkers for cancer (2-10)," and that "Remarkably, this potential has been obtained despite considerable variation in the methods used for acquisition and analysis of the DCE-MRI data"
 - Suggestion that the language in this statement be tempered for two reasons:
 - Methods that are reproducible in clinical practice are not needed to demonstrate potential of a new method
 - Many people may disagree with the statement
- "Drug development" to be included as a use of DCE-MRI in the statement, "...there appears to be a promising future for use of DCE-MRI for basic research, clinical research and in routine clinical practice"; it will be determined whether to specify it as "pre-clinical drug development"
- Dr. Sourbron agreed that "it is essential that common quantitative endpoints are used and that results are independent of imaging platforms, clinical sites, and time" for clinical practice, however, this may not necessarily be true for basic research
 - If one site is able to (provably) produce accurate Ktrans measurements, then that one site can produce valuable basic research even if no other site in the world can replicate it
 - Dr. Chung to update the statement to specify that it is related to clinical practice and is not necessarily true for basic research
- An overview was provided of the Profile development strategy, i.e., "The QIBA Process," which includes a literature search, public comment feedback, and committee agreement/consensus
- Enquiry re: how the list of Profile acknowledgments was developed and whether all the names truly represent authorship or other significant contributions
 - Staff noted that the list originated from the QIBA DCE-MRI BC email communication roster
 - Drs. Chung and Laue provided background re: the evolution of the QIBA DCE-MRI BC, noting that the Profile v2.0 is built on a foundation of original efforts (with v1.0), which had additional contributors; due to a variety of factors, volunteer participation may fluctuate over time
 - Those acknowledged are contributing in one way or another, they are one of the many voices that have been part of the Profile development process
 - It was pointed out that the list in the Profile is informally titled "Acknowledgments" which is dissimilar to a list of authors on a scientific publication, i.e., contributions are not as defined

- Staff noted that attendance at every t-con is tracked
- This topic will be revisited during an upcoming call
- Dr. Sourbron will be present during the next meeting focused on continued discussion of his comments

Next call: Monday, February 22, 2021 at 11 am (CT) [Fixed 2nd & 4th Monday schedule is now in effect]

RSNA Staff attempt to identify and capture all committee members participating on WebEx calls. However, **if multiple callers join simultaneously or call in without logging on to the WebEx, identification is not possible.** Call participants are welcome to contact RSNA staff at QIBA@RSNA.org if their attendance is not reflected on the call summaries.