QIBA Dynamic Contrasted Enhanced (DCE) Biomarker Committee (BC) Call
Thursday, July 19, 2018 at 11 AM (CT)
Call Summary

Participants

Hendrik Laue, PhD (Co-Chair)  Harrison Kim, PhD, MBA  Nancy Obuchowski, PhD
Thomas Chenevert, PhD  Anthony Liu, PhD  Mark Shiroishi, MD
Amita Shukla-Dave, PhD  Dariya Malyarenko, PhD  Gudrun Zahlmann, PhD

RSNA

Susan Stanfa

Moderator: Dr. Laue

DCE Profile Update

- Profile is located at:  
  [https://docs.google.com/document/d/1in76va1Q96tVX97RWLHqjmOHxCeDsMqh98na8pwOb8/edit?usp=sharing](https://docs.google.com/document/d/1in76va1Q96tVX97RWLHqjmOHxCeDsMqh98na8pwOb8/edit?usp=sharing)
- Unless a strong scientific reason exists, a specific phantom should not be recommended
- The latest BC internal review Profile comments were discussed
- Further discussion needed regarding whether to allow both floating point DICOM representation and surgical for parametric maps in the Profile
- Section 3. Profile Activities section to be shortened
- 3.13. Image Analysis: Discussion on tumor ROI definition
  - “The extraction of quantitative DCE-MRI parameters requires a suitable software package” – there was discussion on the fact that there is some software (third party as well as vendor) for brain, prostate and breast but none for head and neck
  - Discussion occurred regarding “Algorithmic steps for parametric image calculation”
  - Revisions were made to “Analysis of DCE-MRI data is carried out in a series of distinct steps” list
    - “Calculate” “Determine” a vascular input function (word choice update)
    - Discussion on why the step, “Identify the region or regions of interest in the dynamic data” should remain
  - Details on the series of steps, as well as the conformance procedure for software are addressed in more detail in Appendix B
- Section 4. Assessment Procedures: additional discussion needed on what to include and what to move (and where)
  - 4.1. Assessment Procedure: Image Analysis Software
    - With proposed/available software
      - Perform T1-Mapping on DRO data from Duke/Barboriak > suggestions for required accuracy
      - Perform Ktrans mapping on DRO data from Duke
    - Check/discuss algorithm comparability for software in question
  - 4.2 R1/T1 Mapping phantom
    - Scan QIBA T1 mapping phantom
    - Compare results with dedicated software
Assessment in reference to Claims is needed
  - Assess assumptions underlying Claim
  - Current Profile Claim developed using phantom; discussion on whether assessment procedures should reflect human subjects
  - Sequestered data set

Next DCE BC Call: Thursday, August 2, 2018 at 11 AM CT

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