QIBA Diffusion-Weighted Imaging MR Biomarker Committee (BC) Call

Thursday, July 25, 2019 at 2 PM (CT) Call Summary

Participants RSNA

Michael Boss, PhD (Co-Chair)
Thomas Chenevert, PhD (Co-Chair)
Carri Glide-Hurst, PhD
Edward Jackson, PhD

Todor Karaulanov, PhD Dariya Malyarenko, PhD Kevin Miller, PhD Nancy Obuchowski, PhD Brian Taylor, PhD Lisa Wilmes, PhD Joe Koudelik Susan Stanfa

Moderator: Dr. Boss

Review of Previous Call Summary

The notes from April 18, 2019 were approved as presented

Round-2 Public Comments on DWI-MR Profile Resolution Process

- Dr. Boss highlighted a few issues on which BC feedback was needed
- Section 2: Clinical Context and Claims for ease of navigation directly to Profile Claim statements, it was suggested that this section be broken up into 3 subsections
 - The structure would be the following: 2.1: Clinical Context Section; 2.2: Claims Section; 2.3 "Clinical Interpretation"
 - o Process cmte Chair, Mr. O'Donnell, to be consulted
- 3.11.1: Image QA Discussion Section
 - o Arrows were added within examples of common artefacts that may affect ADC maps
 - In-line reference was made to Appendix E.2, in that is provides instructions for measuring SNR in diffusion-weight imaging
 - Reference to appropriate NEMA guidance to be added
- 3.6.1: Profile Activities Discussion Section unease re: the location of a "shall" statement is a discussion section; this requirement re: acquiring true-zero b-value whenever possible; may reference discussion in specification table
- Prior concern regarding performance parameter tables breaking the flow of thought when located throughout the body of the Profile
 - o The suggested solution was to relocate all performance parameter tables to the Appendix
 - o The issue may be revisited with the Process Cmte in the future; no change will be made at this time
- An issue with line numbering in Stage 1: Public Comment DWI Profile was resolved with renumbering
- 3.2.2: Profile Activities: Site Qualification Specification Table one of the acquisition device requirements is new and is not yet reflected in the checklists; DWI BC approval is pending
- 3.5.1: Periodic QA Discussion Section additional text was added to note that the frequency of period QA to be performed may be study-specific
- 3: Profile Activities Section redundant paragraph removed re: acceptable/target/ideal behaviors, as they are already described in the subsequent paragraph
- 3.12.1: Image Distribution Discussion Section "shall" was changed to "should," in the specification table and checklists, as disposing data should be a suggestion and not a requirement; if data were generated on the scanner as DICOM images, they should be archived
- Dr. Boss provided the rationale for not making changes to the Profile in response to a few comments

- 3.6: Profile Activities Section no test-retest studies using undersampled techniques were referenced
 - o It was noted that k-space undersampling techniques are becoming more common
 - Dr. Wilmes volunteered to search for references/review articles for sense, grappa, etc. and send them to
 Drs. Boss and Chenevert for inclusion in the Profile

Next Steps

- Staff to circulate Dr. Boss' updated public comment spreadsheet
- Dr. Boss to initiate offline discussion with core DWI BC members unable to attend this call re: changes made
- There are only 3 more public comments that still need action; a cleaned up version of the comment resolution spreadsheet will be reviewed during the August 15 DWI BC call; there will also be a discussion re: an approach to Stage 3: Technically Confirmed
- A BC vote-to-publish the DWI-MR Profile as Stage 2: Consensus to be initiated upon completion of the <u>review</u> <u>process</u>
- Both rounds of public comment to be compiled and posted on the Comment Resolutions QIBA Wiki page

Next DWI BC Call: Thursday, August 15, 2019 at 2 PM CT

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