

QIBA Proton Density Fat Fraction Biomarker Committee (PDFF BC) Update Call

Thursday, June 6, 2019 at 3 PM (CT)

Call Summary

Participants

Scott Reeder, MD, PhD (Co-chair)
Mustafa Bashir, MD
Mark Bydder, PhD

Gavin Hamilton, PhD
Walter Henderson, BA
Harry Hu, PhD

Samir Sharma, PhD
Claude Sirlin, MD

RSNA

Joe Koudelik
Susan Stanfa

Moderator: Harry Hu, PhD

Review of Previous Call Summary

- The 05.02.2019 call summary was approved as presented

Multi-Vendor Calimetric Phantom Study Update (Dr. Hu)

- LipoQuant is a protocol routinely used in many clinical trials and is suggested based on hepatology expertise, not imaging expertise; it may not be relevant for the purposes of this study
 - Dr. Hernando has been reacquiring images on University of Wisconsin's 1.5T GE scanner with and without parallel imaging to determine the cause of variability
 - It was confirmed that the phantom will not be returned to San Diego (no benefit)
 - Two additional scans on another 1.5T, a temperature scan and analysis of results were deemed reasonable next steps
 - Before deliberating on how to correct for variability, its true cause needs to be identified and understood
 - Goodness of fit needs to be looked at as well: Drs. Sirlin, Hamilton, Henderson and Middleton to devise a plan and assign tasks
- It was emphasized that the original purpose of the round-robin study was to determine range of bias in PDFF measurement using various vendor techniques at 1.5T and 3T
 - The main goal of the study is the resulting paper, which will inform the Profile Claims; caution voiced not to delay progress by chasing three poor correlations; the paper is primary study objective
 - It was relayed that ISMRM attendees were more interested in when the paper would be published than they were concerned with the three bad data points
- To ensure that software versions and parameters are standardized, phantoms will be sent back to the Siemens sites due to water/fat map swapping issues with scanner reconstructions
 - Duke University, Nationwide Children's Hospital, Mayo and CHOP have received updated reconstruction protocols from Siemens; re-scans of phantom with new protocol to be conducted
 - Dr. Bashir requested that the phantom be shipped to Duke University no sooner than late June or early July
 - Dr. Hu to email the other two Siemens site contacts, Drs. Serai (CHOP) and Shu (Mayo), to develop a phantom re-scan shipping schedule
 - Once re-scanning at Siemens sites is completed, round-robin testing will be concluded
- A draft manuscript based on the experiment is underway

Next call: Thursday, August 1, 2019 at 3 PM CT [1st Thursday of July is Independence Day – RSNA HQ is closed]

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