

QIBA Lung Density Biomarker Committee (BC)

November 18, 2015 at 2 PM CT

Draft Call Summary

In attendance

Sean Fain, PhD (Co-Chair)

Matthew Fuld, PhD (Co-Chair)

David Lynch, MD (Co-Chair)

Andrew Buckler, MS

Heather Chen-Mayer, PhD

Dominic Crotty, PhD

Philip Judy, PhD

Nancy Obuchowski, PhD

Daniel Sullivan, MD

RSNA

Joe Koudelik

Julie Lisiecki

Phantom Scanning, Round II:

- A solution to the vendor concerns regarding how data from scanner usage will be used is still under consideration
 - The group is seeking an official QIBA sanctioned protocol or procedure template to allay any vendor IP concerns
 - fNIH Biomarker Consortium was suggested as a possible model
 - The group plans to seek the advice of QIBA Leadership on this issue: all suggestions are welcome.

Profile:

- AEC details will be developed in parallel and added to the final version of the draft Profile
- An open questions section will be included so that the group may move forward with the Profile and resolve open questions pending feedback from the public comment phase
- The first draft to be released will include recommendations on dose reduction
- Prior to release, a few other issues will be addressed at the QIBA Working Meeting Breakout Session
 - Examples include resolution ambiguity with varying mAs used, HU tolerances and length of breath hold
- It is anticipated that Profile Public Comment Phase will take 4 - 6 weeks.
- Work on convergence schema between vendors to continue during the Public Comment phase
 - How to make cross-vendor comparisons re individual conformance approaches not yet known.
 - This will be essential to compare vendor scans.

Breakout Session Preparation:

- The co-chairs have asked those attending the breakout session to prepare short talks on specific assigned topics for discussion at the meeting
 - Dr. Lynch to discuss the overall direction of the Lung Density Biomarker Committee (where we are now, and possible next steps)
 - Dr. Chen-Mayer to update the spreadsheet with multiple dose levels and kernels
 - Drs. Chen-Mayer and Fuld to prepare data on HU and tolerance numbers in a cross-vendor comparison
 - This will be used in the appendix to document compliance from each vendor
 - Dr. Fuld to follow up with Dr. Dharaiya (Philips) to see if she will be attending the meeting
 - GE and Toshiba to be prepared to discuss additional data
 - Drs. Hoppel and Chen-Mayer will meet with Mr. Sieren prior to the QIBA meeting to discuss software
 - Dr. Fain to discuss noise and dose modulation and will provide an overview of the Profile
 - Dr. Fain will prepare a folder on [DropBox](#) for everyone to share/ download any materials for the QIBA meeting
 - Dr. Fain will remain custodian of the Profile

Breakout Session Discussion Topics for QIBA Working Meeting at RSNA 2015

- Vendor engagement and next steps re phantom scanning
- Overall direction of the Lung Density Biomarker Committee
- Review of the existing Profile document and goal setting toward Profile release for Public Comment in 6 months
- Work toward finalizing harmonization steps:
 - Quantitative image acquisition procedures

- Image post-processing and any effects to explore
- Image analysis and any additional information needed
- Compliance criteria and procedures (specific procedures to be used for scanning)
- RA -950 and PERC 15 as metrics
- Software to consider for analysis – Other vendor representatives are needed
- Volume corrections
- Mass conservation issues
- Effects of iterative reconstruction (IR)
- AEC
- Correct acquisition protocol
- Corrections for biological issues
- Dose modulation
- “Open Questions” section
- Next steps for Public Comment version

Next call: Wednesday, December 16, 2015 at 2 pm CT