

QIBA Lung Density Biomarker Committee (BC)

March 25, 2015 at 2 PM CT

Call Summary

In attendance

Philip F. Judy, PhD (Chair) Matthew Fuld, PhD Nancy Obuchowski, PhD
Andrew Buckler, MS Bernice Hoppel, PhD Karen Procknow, RT (R)
Dominic Crotty, PhD Songtao Liu, MD Daniel Sullivan, MD

RSNA

Joe Koudelik
Julie Lisiecki

Vendor COPDGene Phantom 2 Scanning

- All vendors have completed Phase I of phantom scanning
- The next step will be analysis with the U-Iowa software, once signed release agreements are processed
 - All plan to have agreements finalized by the end of next week
 - Software should be available to Drs. Crotty, Hoppel, and Dharaiya the following week.
- Dr. Fuld has received his software and has suggested a few modifications
- Resolution metric still under consideration for comparison among vendors, based on scan results
- Raw data have been saved by each of the vendors, though unlikely to be shared due to company restrictions
- All vendors to follow up with their respective management regarding data release policies/restrictions
- Access to the image data may be provided via the QIDW, if feasible

AEC Project

- Dr. Fain requested assistance from vendors to complete AEC iterative reconstructions
 - Vendors have agreed to apply iterative reconstruction techniques in Phase II of the study
 - Only image data will be available; not raw data

Analysis of COPDGene Cases

- A follow-up study of imperfect inspiration (200 mAs)-expiration (50 mAs) leading to similar lung volumes is in progress
- Project for consideration: to develop and evaluate procedures to make the lower lung dose measurements equivalent to previous higher measurements

Profile

- The BC plans to have a rough draft available for the May QIBA Annual Meeting
 - Additional attention is needed in the following areas:
 - analysis issues – open questions
 - scanner variation – awaiting vendor study results
 - volume correction – list of possible methods
 - specification noise – constrained by resolution

Next call: Wednesday, April 8, 2015 at 2 pm CT