QIBA Lung Density Biomarker Committee (BC) Call
September 13, 2017 at 2 PM CT
Call Summary

In attendance

Sean Fain, PhD (Co-Chair)  Charles Hatt, PhD  Philip Judy, PhD  Joe Koudelik
David Lynch, MD (Co-Chair)  Bernice Hoppel, PhD  Miranda Kirby, PhD  Julie Lisiecki
Heather Chen-Mayer, PhD  Stephen Humphries, PhD  Nancy Obuchowski, PhD

RSNA

Discussion included:

RSNA 2017 Poster Assignments:

• Dr. Fain requested that team members have a PowerPoint panel with graphics and accompanying text ready by the October 11th call for group review of the draft poster
• Examples of previous posters are available on the QIBA wiki; Dr. Fain has PowerPoint templates

• Assignments include:
  o Drs. Humphries / Lynch: Groundwork projects, dose reduction aspects, volume correction, field test
  o Dr. Chen-Mayer: update on the phantom foams
  o Drs. Hatt / Kirby: software comparison study
  o Dr. Fain: Profile development status
  o Drs. Estepar and Vegas-Sanchez-Ferrero: AEC validation
  o Drs. Hoppel, Hoelzer, and Crotty: vendor conformance documents

Profile:

• Internal BC review is ongoing; Team member comments are requested by 9/27, in efforts to move the Profile forward to the Public Comment phase
• Conformance standard or document to be provided by each vendor instead of specific protocols
• Dr. Chen-Mayer to add some language regarding the phantom foams and achieving proper slope-fit near Figure 3, e.g., quadratic vs. linear models
• Dr. Judy shared comments regarding systematic difference between the standard deviation of the air-hole CT numbers and the standard deviation of the water-bottle CT numbers
• Once internal review is complete, a BC vote by email ballot will be needed to release the Profile for public comment per the Profile Process outlined by the Process Committee

Comparative Algorithm Study update:

• There are now 12 participants signed up for the comparative study: 7 academic and 5 commercial
• Instructions are needed to participate
• The team is waiting for completion of the COPDGene CT data curation
  o There was corruption in some downloadable files; a few patient scans needed to be re-uploaded
• Dr. Hatt will conduct a beta test of the downloads, then draft a results form and study instructions

Harmonization field testing (Dr. Humphries):

• Four sites have returned phantom scans including:
  o National Jewish
  o University of Iowa
  o University of Pittsburgh
  o University of Michigan
• One more site is expected to return results
• Dr. Humphries is collating the data into a format suitable for analysis
• Any volunteers to aid with the harmonization model would be much appreciated
• Goal is to present an interim analysis by RSNA 2017
Supplemental funding:

- BC leadership has approached COPDGene for supplemental funding to complete the Phase II protocol
- Aims created by Drs. Estepar and Vegas-Sanchez-Ferrero regarding spatial noise correction were sent to COPDGene leadership for consideration; the Lung Density BC would like to incorporate these aims into field testing efforts
- Good news was received regarding COPDGene (Dr. Crapo) being funded for another 5 years
- Dr. Lynch to ask Dr. Sullivan to liaise between NHLBI and NIBIB to help the BC navigate processes correctly
- No deadline has been set for application to the BC’s knowledge
- Dr. Fain hopes to have a firmer plan in place by November

Next call: Updates on the proposed comparative study will be discussed, Profile comments, and poster assignment updates

Wednesday, October 11, 2017 at 2 pm CT

SAVE-THE-DATE: QIBA Working Meeting at RSNA 2017 | Wednesday, November 29, 2:30-6 pm – Lakeside Center