QIBA Lung Density Biomarker Committee (BC)
July 15, 2015 at 2 PM CT
Draft Call Summary

In attendance   **RSNA**

Sean Fain, PhD (Co-Chair)   Dominic Crotty, PhD   Joe Koudelik

David Lynch, MD (Co-Chair)   Bernice Hoppel, PhD

Heather Chen-Mayer, PhD   Karen Procknow, RT

Moderator: Sean Fain, PhD

AEC Project Update (Dr. Fain)
- Iterative Reconstruction (IR) and automated exposure control (AEC) roles on dose reduction techniques were reviewed. Since each operates independently, the focus is first on harmonizing AEC protocols for GE and Siemens systems.
- Various AEC challenges include methodology/implementation, dose quality reference for large patients
- Harmonizing the various strategies currently used across vendor systems; a base-camp of performance is needed
- Automated CT segmentation is being developed as well
- Ways to control noise (noise index) and dose (mAs) remain of primary concern
- U Iowa developing a new phantom based on a homogeneous foam and lung tissue standards to reflect true lung structural complexity.
- COPDGene is hopeful to implement AEC for dose modulation in a pilot study in the next few months
- Dr. Fain's AEC study results may be helpful in developing a COPDGene protocol

Profile Issues Discussed
- Details are needed regarding how round -1 vendor phantom scans relate to the Profile
- Phantoms to be used to develop detailed CT performance values for meeting the Profile claim
- The Profile needs to outline reasonable/ tolerable vendor system variations to avoid being too "aggressive"
- A plan was needed to best utilize new groundwork data to support the Profile
- Detailed discussion regarding the Profile was tabled for a future call

Next call: Wednesday, July 29, 2015 at 2 pm CT