

**QIBA COPD/Asthma Lung Density Reference and Consistency Standards Work Group Update**  
July 13, 2011 at 2 PM CDT

Call Summary

**In attendance**

*Philip Judy, PhD (Co-chair)*

*John D. Newell Jr., MD (Co-chair)*

Heather Chen-Mayer, PhD

David Gierada, MD

Joshua Levy

Baojun Li

**RSNA**

Madeleine McCoy

**Agenda:**

1. Presentation:
  - a. Comparison of COPD Gene Reference Standard 1 and Reference Standard 2
  - b. Effects of foam batch, tube current, reconstruction kernel, slice thickness
  - c. Cupping in COPD Gene Reference Standard ring
2. Standards for qualification and determining equivalence of reference standards
  - a. Distinction of reference standards and quality assurance standards

**General Discussion:**

- Need to define lung density reference standard.
  - Measuring the same patient on different devices would be ideal
  - The lung density reference standard is a specified object and method used to calibrate lung CT density measurements
  - Whatever is done as a reference standard will have to be validated or qualified in some way
  - Possible target is use of the COPD ref 1 lung material and water
- For COPD standard 1 to be used as a reference standard it would first need to be qualified or validated as a reference standard
- More discussion needed on future direction of the group
  - Clarity and consistency will be important moving forward
- Need to determine the difference between a Quality Assurance Phantom and a Reference Phantom

**Next steps:**

- Dr. Judy to summarize the critical issues
- Dr. Levine and Dr. Chen-Mayer to report in about a month on the NIST program of matching foam; normal lung and low density lung
- Dr. Newell to ship one of the 20 phantoms to Dr. Chen-Mayer
- Profile discussion on the next Tech Cttee call on July 20th

**Next calls:**

- **Wednesday, July 20<sup>th</sup>** - COPD/Asthma Technical Committee Update Call – to discuss Profile
- **Wednesday, July 27<sup>th</sup>** - Lung Density Reference and Consistency Standards Work Group