

## QIBA COPD/Asthma Technical Committee

January 18, 2012 at 2 PM CST

### Call Summary

#### In attendance

*Philip F. Judy, PhD (Co-chair)*

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

Paul L. Carson, PhD

Harvey Coxson, PhD

Barbara Croft, MD

Michael Flynn, PhD

Bernice Hoppel, PhD

Joshua Levy

Jered Sieren

#### RSNA

Joe Koudelik

Julie Lisiecki

#### Dr. Judy: Airway Measurements Discussion

- Six measurements were made using “Airway Inspector” on the newer phantom with NIST foams
- Different methods were used to take measurements:
  - FWHM (*Full width at half maximum*)
  - Zero Crossing Method
  - Phase Congruency
- FWHM had the best repeatability using algorithms
- These measurements demonstrate decision tradeoffs when measuring airways
- The topic will be discussed at greater length on the 1/25 call of the working group.

#### Other topics:

- One algorithm should be selected and used to minimize deviation
  - Could be challenging to test across vendors
- Challenges remain with moving the Profile forward despite some agreement in November 2011 regarding the UPICT protocol for COPD/Asthma
  - Lack of consensus on the density measurements to be recommended for claims/ metrics for the Profile
- QIBA is primarily interested in imaging biomarkers – *not* diseases and part of the challenge is that the group is working to create a Profile for two separate diseases
  - Group needs to narrow its focus but no clear priority has emerged
  - It was suggested that Dr. Lynch could lead the metanalysis / extensive review of the literature on the -950 metric for emphysema vs. – 856 for airways
- Another topic of interest is including scanner-specific instructions in the Profile
  - Most sites have at least a 64 slice scanners or above
  - As technology speeds forward, 128 and 256 slice machines will be more commonplace
    - The question was raised: will metrics for the 64 slice be appropriate?

#### Next Steps:

- Dr. Newell will follow up with Drs. Lynch and Dr. Coxson regarding literature review and further research
- Dr. Lynch to move forward metanalysis of the literature for extensive review - focus on emphysema metrics

#### Next calls:

- Next COPD/Asthma Technical Committee update call: **Wednesday, February 8, 2012 at 2 PM CST**
- Next COPD/Asthma LDRCS WG update call: **Wednesday, February 15, 2012 at 2 PM CST**