

QIBA COPD/Asthma Technical Committee (TC)

June 19, 2013 at 2 PM CT
Call Summary

In attendance

Philip F. Judy, PhD (Chair)

Barbara Croft, PhD

Sean Fain, PhD

Matthew Fuld, PhD

John Hokanson, PhD

Bernice Hoppel, PhD

Zachary Levine, PhD

David Lynch, MB

Daniel C. Sullivan, MD

RSNA

Julie Lisiecki

COPD/Asthma Technical Committee Agenda, 6/19/2013

- Profile precision claim
- Results of COPDGene duplicate case analysis
- Possible prospective test/retest study with COPDGene
- Analysis Section of Emphysema Profile

Discussion topics:

Overview of COPDGene Longitudinal Study (Dr. John Hokanson)

- This study presents opportunities and challenges, particularly with regard to CT parameters
 - Of interest are the paired image samples and observed measurement variability
 - The original study had only 29 subjects; A larger sample size of at least 50 would be preferred
- Some observations from the study:
 - No bias in paired measurements related to the average of those paired measurements
 - CV: Coefficient of variation is 15.7%
 - Not a test of measurement variability
- Determining true change is of particular interest – this could be accomplished by taking the absolute value of the difference of paired measurements, with a conservative threshold of (>99%)
 - The measurements may benefit from some volume correction
 - Of note – some of the individuals were scanned using different scanners
- Collaboration with COPDGene planned to pursue phantom multi-site test/retest experiments

Profile Progress

- Dr. Judy to serve as Profile editor and have a draft version for review on the group's July 3rd meeting
- The data on 'true change' from the COPDGene study which shows disease progression could help to define the coefficient of variation for the Profile
- Group must determine whether to use PERC15 or -950 HU threshold as a measure of disease progression
- Currently, no true gold standard for progression in COPD exists

Proposed QIBA session in conjunction with STR for March 2014 Meeting in San Antonio, TX

- One – day workshop being considered for quantitative imaging of the lung
- Dr. Lynch is interested in requesting sponsorship from QIBA; he and Dr. Judy to follow up offline

IWPFI Update - July 17-20: Lung Function Workshop

- Schedule for QIBA session at the workshop and a meeting of QIBA members was reviewed

Summer Meetings:

July 17-20: Lung Function Workshop | September 7-11: European Respiratory Society | August 4-8: AAPM meeting

Next call: QIBA COPD/Asthma Update Call, **Wednesday, July 3, 2013, 2 pm CT**

Future Scheduling: Dr. Judy cannot lead the call on August 14th – a volunteer moderator will be required if a call is to be held.