

QIBA COPD/Asthma Technical Committee

October 24, 2012 at 2 PM CT

Call Summary

In attendance

Philip F. Judy, PhD (Chair)

Paul Carson, PhD

Heather Chen-Mayer, PhD

Harvey Coxson, PhD

Barbara Croft, PhD

Sean Fain, PhD

Jong Hyo Kim, PhD

Joshua Levy

Baojun Li, PhD

Mark Schiebler, MD

Daniel C. Sullivan, MD

RSNA

Fiona Miller

Julie Lisiecki

1. Discussion

- QIBA Metrology Template for Profile claims was reviewed briefly
- The goal is to identify a finite set of biomarkers
 - The proposed first measurand is PERC 15 (an emphysema marker/ metric for longitudinal studies)
- Dr. Judy has begun a literature review for references on reproducibility
 - Little published work exists on this topic; a formal metanalysis is needed
- Inconclusive discussion on whether there is clinically significant measurable change
- Coefficient of variation may not work with PERC 15
- It was suggested that PERC 15 only applies to ratio measurements in longitudinal studies
 - Clarification is needed if interval- or ratio-variable
 - This measurement is thought to be more easily standardized for CT scans, though less accurate
 - There is no pathologic validation, though the measurement is very robust
 - Typically used in European studies, esp. the Netherlands
 - North American researchers prefer a percentile approach, low attenuation or application of value to see where it places on percentile threshold analysis
- The group agreed that PERC 15 is a useful metric and could be used
- Goal to move CT forward as a valid biomarker if there is an identifiable surrogate endpoint

2. RSNA 2012 Plans

- Face-to-face meeting
 - Due to travel budgets and constraints, not many from the technical committee will be able to attend
 - Dr. Fain indicated he will attend
- Poster: Dr. Judy is compiling information from tech committee members for the poster figures and text
- **The QIBA working meeting is Wednesday, Nov 28th, from 3 pm – 5 pm**
 - Please respond to the Doodle Poll regarding attendance at Wednesday's meeting:
<http://www.doodle.com/kssb47q8up4446c6>
 - Doodle Poll will be used by tech committees to prepare agendas based on attendance

3. 2013 International Workshop for Pulmonary Functional Imaging

- Drs. Judy and Lynch to finalize the QIBA program and submit a proposal with agenda to RSNA
- Drs. Chen-Mayer and Levine expressed an interest in attending though travel resources may be needed

4. Technical Committee Plans

- Per Dr. Fain, CBQC has expressed some interest in dose-reduction CT studies. Dr. Judy may propose a T-Con with CBQC to further discuss suitable biomarkers for Profile development.
- Status of NIST effort
 - Drs. Chen-Mayer and Levine are preparing documentation for marketing/ distribution of NIST foams
- Phantom Update
 - Some phantoms with Phantom Lab for upgrade to address scattering issues
 - Dr. Judy plans to perform scans of the COPDGene phantom as part of the COPDGene Study II, which begins in 2013 with approximately 10,000 cases

Next Steps

- Dr. Fain to provide information to Dr. Judy for the poster

- Seek alternate sources of funding for RFP for computer program to analyze COPDGene Phantom images
- Plan a comparison of airway-size image analysis algorithms
- Return to Profile writing
 - Discuss Profile claims and next steps – Add calibration procedure

Next call: *QIBA COPD/Asthma Update Call, [Wednesday, November 7, 2012, 2 pm CT](#)*