

QIBA COPD/Asthma Technical Committee Update

December 15, 2010 at 2 PM CST

Call Summary

In Attendance

Philip Judy, PhD (Co-chair)
David Lynch, MB (Co-chair)
Andrew Buckler, MS
Heather Chen-Mayer, PhD
Harvey Coxson, PhD
James Crapo, MD
Sean Fain, PhD
David Gierada, MD
Eric Hoffman, PhD

Zachary Levine, PhD
Joshua Levy
Jered Sieren

RSNA
Fiona Miller
Joe Koudelik

Groundwork Proposals Discussed

- COPD proposal developed for QIBA funding based on raw image databases from Drs Hoffman and Lynch
- Dose-saving algorithm proposal developed by Drs Fain and Ranollo
- Breast shield usage protocol and current modulation to limit exposure discussed as potential additional proposals
 - Beam hardening, scatter and streaking to be studied
 - Dr Levine to follow-up with NIST personnel to model effects
 - Demonstrating breast shields provide little benefit will help with standardization
- Perfusion CT scanning with COPDGene phantom using COPD and SPIROMICS protocols; may be difficult/ costly to collect
- Retrieval and archival raw data for phantom and COPD subject scans for algorithm development
- Integration of COPDGene phantom scans and patient scan data; data already in-hand; only support to analyze data needed; still need to select which scanner data to analyze

Phantom Modification Overview (Dr Judy)

- Ring insertion (annulus) discussed
- Acrylic, water, and air comprise materials
- Various tubes located in center to mimic the trachea
- Three NIST foams added for additional density variations

Profile/UPICT Activities

- Drs Dorfman, Judy, Lynch and Mr O'Donnell discussed next steps while at RSNA 2010
- COPD Profile to be augmented with Claims and specifications for vendors
- In-person meeting suggested to steer Profile development

Next Steps:

- Next call scheduled for Jan 12th, 2011 at 2 pm CST