

QIBA COPD/Asthma LDRCS Working Group Update

September 14, 2011 at 2 PM CDT

Call Summary

In attendance

Philip Judy, PhD (Co-chair)
Andrew Buckler, MS
Paul L. Carson, PhD
Heather Chen-Mayer, PhD
James Colsher, PhD
Sean B. Fain, PhD

Zachary Levine, PhD
Joshua Levy
Baojun Li, PhD
Frank Ranallo, PhD
Daniel Sullivan, MD

RSNA

Julie Lisiecki

Agenda

- I. Status of COPD Gene Reference Test Object: COPD Gene QA Experience
- II. Plan for RSNA Poster: Schedule scatter/cone-beam artifact experiment
- III. Trachea Test Object results

General Updates

- Dr. Judy discussed how the group can share knowledge regarding the use of the foam phantom objects developed by Mr. Levy and suggested a sample presentation for the one day “Quantitative CT of the Lung” meeting in conjunction with the *Society of Thoracic Radiology (STR) Annual Meeting 2012*
- Dr. Levine suggested journals and discussion with QIBA groups as vehicles for promotion
- Dr. Judy also reminded the group about the COPD/Asthma TC poster* for *RSNA 2011*
 - Dr. Fain volunteered to work on an airways segment with Dr. Eric Hoffman and Jered Sieren
 - Deadline: Poster to be shipped to/ received by RSNA no later than Friday, Nov 4, 2011

Discussion: Trachea Test Object Results

- Dr. Judy noted that there are automated measurements for the COPD Gene Phantom that can be measured via the University of Iowa’s current setup; however, a measurement for airways would also be beneficial
- Dr. Judy suggested that Dr. Chen-Mayer send her data to Mr. Jered Sieren for automated analysis
- Dr. Judy is working on the problem of fluctuation in increased attenuation values using the Siemens algorithms, B31 and B35; obvious ring artifacts were seen on the scans, likened to “noise”
 - Dr. Fain suggested that in this instance, the scanner may have been pushed beyond its calibrated region and that this will not result in a desirable or accurate measurement
 - Dr. Fain further suggested that due to the different scatter correction on different systems, it may be useful to test the various systems in order to determine how to best normalize for this problem using the trachea

Next steps:

- Dr. Fain volunteered to work on airways segment for the Tech Ctte poster at RSNA 2011
- Dr. Judy to distribute general information regarding the tentatively scheduled one-day meeting for Quantitative CT Imaging of the Lung, March 10, 2012, to be held in conjunction with the *Society of Thoracic Radiology (STR) Annual Meeting*
- Dr. Chen-Mayer to follow up with Mr. Sieren regarding analysis of NIST data via automated analysis
- Profile work to continue during next technical committee call

Next calls:

- Next COPD/Asthma TC update call: **Wednesday, September 21, 2011 at 2 PM CDT**
- Next COPD/Asthma LDRCS WG update call: **Wednesday, September 28, 2011 at 2 PM CDT**

*One poster for each Tech Ctte. For reference, the 2010 posters are available on the QIBA WIKI:

http://qibawiki.rsna.org/index.php?title=QIBA_and_UPICT_posters_from_RSNA_2010_Annual_Meeting