

QIBA COPD/Asthma LDRCS Working Group Update

August 31, 2011 at 2 PM CDT

Call Summary

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|--------------------------------|---------------------|----------------|
| In attendance | Zachary Levine, PhD | RSNA |
| Philip Judy, PhD (Co-chair) | Joshua Levy | Julie Lisiecki |
| John Newell, Jr, MD (Co-chair) | Baojun Li, PhD | |
| Paul L. Carson, PhD | Jered Sieren | |
| Heather Chen-Mayer, PhD | Berend Stoel, PhD | |

Agenda

- I. Confirm Poster at RSNA*
- II. The Phantom Laboratory evaluation of foam CT number and density
- III. Scatter/cone-beam artifact experiment
(Presentation handouts were distributed.)

Discussion

Presentation by Mr. Josh Levy – Phantom Laboratory evaluation of foam CT number and density

- Foam variation seen, even within the same sheets
- 43 foam plugs cut from one sheet of 7112 lung foam were tested
 - The test was not a scientific study, and there is no data on systematic errors
 - Foam blocks are being prepared for further testing at NIST
 - Goal is to determine an idealized configuration for the test object with a standard reference value
- Dr. Judy noted that it is the process used for specifying the accuracy of the test object that is important

Presentation by Dr. Judy on test objects and the phantom (cupping, cone-beam artifacts, and conclusions)

- Focus of work is using extreme accuracy to individually calibrate materials in a consistent manner
- Believes that errors of cupping may have been associated with cone-beam artifact
- CT numbers increased dramatically at the air edge of the phantom.

Next steps:

- Group to consider topics for the Tech Ctte poster at RSNA 2011
 - Samples from 2010 and 2009 are on the QIBA WIKI:
http://qibawiki.rsna.org/index.php?title=QIBA_and_UPICT_posters_from_RSNA_2010_Annual_Meeting
- Comments regarding the University of Iowa version of the Profile, posted at http://qibawiki.rsna.org/index.php?title=COPD-Asthma_tech_ctte are welcome and should be forwarded to Mr. Jered Sieren, University of Iowa: jered-sieren@uiowa.edu

Next calls:

- Next COPD/Asthma TC update call: **Wednesday, September 7, 2011 at 2 PM CDT**
- Next COPD/Asthma LDCRS WG update call: **Wednesday, September 14, 2011 at 2 PM CDT**