

QIBA Volumetric CT Group 1C Update

Wednesday, February 23, 2011; 4:00 PM CST

Call Summary

In attendance

Charles Fenimore, PhD, (Chair)

Philip F. Judy, PhD

Grace Kim, PhD

John Lu, PhD

James Mulshine, MD

Ganesh Saiprasad, PhD

Ying Tang, PhD

RSNA

Joe Koudelik

Julie Lisiecki

I. Update on Phantom Imaging

- Successful imaging of the FDA phantom has taken place at the following locations:
 - NIST, FDA, UMMC, Toshiba, UCLA
 - Scanners included: Siemens-64, Toshiba-64, two Philips-16s and Philips-64
- Imaging on the GE-64 will be completed next week at Duke
- Next step: Determine the details of where, when and how the images will be read
- Group is very pleased with the quality and amount of data collected

II. Adjustments Made During Phantom Imaging

At UMMC, the quality performance-based protocol was modified to use the standard 512x512 image matrix and 350 mm Display FOV. New measurements on the ACR phantom show the modifications are compliant with the protocol performance quality indices. Imaging at UMMC is complete.

III. Reader Study Update

- Discussed proposed reader study design with statisticians and technical leads
 - Discussed reading of 62 lesions, ideally with 5-7 readers to realize study goals
 - De-identification (for collection site and scanner) and randomization details needed
 - Study not designed to spread the 5 – 7 readers over more than one site. Doing so would add “reading site” as a factor in the study and is likely to affect the inter-rater variation.
- Dr. Kim provided a brief update on progress. Two documents are needed –
 - Drs. Kim and Lu to meet via phone to finalize the study design as a single document.
 - Drs. Kim and Lu are to work on a randomization schema for the reading
- The schedule for vCT 1C study calls for delivery of reader study results within 2 months after the completion of image acquisition in order to have sufficient time for analysis

IV. File Naming Conventions to Follow

- Uniformity
- Anonymity

Next steps:

1. Dr. Fenimore to confer with Drs. Kim and Lu via telephone next week to draft a reading requirements document to promote CRO involvement with the study
2. Drs. Kim and Lu to finish the design of the reader study and finalize the reader “randomization” schema

Next call: Thursday, March 10th at 3 pm CST. **Agenda:** (1) imaging and image curation and (2) reader study design and logistics.

Note: all documents are posted to the QIBA wiki at: <http://qibawiki.rsna.org>; The specific 1C page link is: [http://qibawiki.rsna.org/index.php?title=VolCT - Group 1C](http://qibawiki.rsna.org/index.php?title=VolCT_-_Group_1C)