

QIBA Quantitative CT Group 1C Subcommittee Update

Wednesday, January 5, 2011; 2 PM CST

Call Summary

In attendance

Charles Fenimore, PhD, (Chair)

Andrew Buckler, MS

Baiyu Chen

Sandra Chica, MD

Bruno De Man, PhD

Marios Gavrielides, PhD

John Lu, PhD

Michael McNitt-Gray, PhD

Kevin O'Donnell

Nicholas Petrick, PhD

Ehsan Samei, PhD

Ying Tang, PhD

RSNA

Julie Lisiecki

Madeleine McCoy

I. Imaging Protocol

- New additions to the tables since last meeting were: 1) pitch, 2) Scanning FOV, and 3) Display FOV
- Dr. Fenimore to revise scanner settings tables based on today's suggestions and send to all for review
- More specific fields to be added for more accurate image collection
 - Dr. McNitt-Gray to provide a draft version of these specific fields, i.e., exactly what the operator sees
 - Consider adding detector configuration, rotation time, gantry rotation, slice thickness, mAs
 - Terminology on different machines is not equivalent; need manufacturer-specific terminology to avoid operator confusion

II. Groundwork for Profile Writing

- The 1C protocol is written in the same type of format as the Profile – developing into profile groundwork
- Main body of the Profile is platform-independent but manufacturer-specific instructions are platform-dependent
- Consider including table with the imaging protocol and adding device-specific instructions within an appendix
- Difference between device specific and device dependent noted
- Appendix could involve more sophisticated mapping e.g., platform-dependent matrix

III. Parameters for QIBA Compliance

- To be QIBA compliant, certain items must be recorded
 - group to determine which parameters are necessary for QIBA compliance

IV. Experiment Details

- Scanning time estimate ranged from 1-2 hours to 4-5 hours
Suggestion to do a dry run and prepare for unforeseen issues, e.g., software updates, 2 hrs would likely be sufficient
- Travel and phantom transport needs to be taken into consideration
- Some sites may have limited scheduling availability; early or late hours, Saturdays
- Plan calls for approximately 8 weeks to wrap up the collection of data at all sites

Next steps:

1. Dr. Fenimore to revise table and distribute to everyone for review before next call.
2. Participating sites to consider target dates for scheduling imaging with the FDA phantom and fill out responses on the table provided by Dr. Fenimore; plan to start at end of January.
3. Determine whether Drs. McNitt-Gray or Samei can be present for imaging at different sites
4. Discuss inter-scanner study; Dr. Fenimore to send information to Dr. Kim for study design development
5. Dr. Gavrielides /Dr. Fenimore to address nodule size and positioning concerns
6. Dr. McNitt-Gray to follow up again with Dr. Boedeker at Toshiba to include the full spectrum of manufacturers

Next call: Wednesday, **January 12, 2011**, 3:30 pm CST, 4:30 pm EST.