

QIBA CT Volumetry Technical Committee Update Call

05 March 2012 at 11 AM CST (GMT-6)

DRAFT Call Summary

In attendance:

P. David Mozley, MD (Co-chair)
Maria Athelougou, PhD
Hubert Beaumont, PhD
Andrew Buckler, MS
Paul L. Carson, PhD
Baiyu Chen, PhD
David A. Clunie, MBBS
Patricia E. Cole, PhD
Barbara Croft, MD

Charles Fenimore, PhD
Marios Gavrielides, PhD
Gregory V. Goldmacher, MD, PhD
David Gustafson, PhD
Philip F. Judy, PhD
James Mulshine, MD
Kevin O'Donnell, MASc
Ehsan Samei, PhD
Ying Tang, PhD

RSNA:

Joe Koudelik
Madeleine McCoy

Dr. Samei's (Duke) Project Update

- "Development of Predictive Metrics for Quantitative Imaging in Chest CT", Duke Project Overview – Dr. Samei
 - Project focus remains on precision, not accuracy
 - Achieving QIBA compliance discussed; need more mathematical basis to best predict performance, identify and support the use of metrics, and feed the CT Volumetry Profile
 - The proposed project timeline:
 - Oct 2011– Mar 2012**
Deployment of a framework for drawing a correspondence between simple figure of merits (FOM) and quantitative imaging performance in CT
 - Apr 2012 – Sep 2012**
Table of strengths and weakness of current phantoms for assessing quantitative imaging performance
 - Oct 2012 – Mar 2013**
Identify tolerances and threshold that CT quantification requires in terms of FOM measured on QA phantoms and recommend guidelines for compliance of quantitation techniques (software and hardware)
 - Initiated but still in early stages
 - Awaiting the finalization of e' model and QA phantoms
 - Dr. Samei and Mr. O'Donnell to speak offline regarding the compliance requirements and sufficient precision for the Profile
 - Dr. Samei to follow up with Drs. Petrick and McNitt-Gray (group leaders for 1A & 1B) for possible project interaction
 - Drs. Samei and Judy to possibly collaborate on a lung density project

Future Tech Ctte Projects/Path Forward (Gantt chart overview)

- CT compliance testing requires more Profile detail; phantom development to be added to the Profile under the compliance section
- 1A, 1B warrant with efforts of team projects-include those with experience, Dr. Clunie
- 1C Data support work to be carried out with dose/shape dose/devise

QIBA Vol-CT AdvDisease v2 Public Comment Profile Feedback (led by Mr. O'Donnell)

- RSNA will circulate the latest copies of the Public Comment Resolution Materials
- The 4-hour work session has been scheduled for Friday, March 9th from 12pm – 4pm (CST)

Schedule Updates:

- March 12th: open with **Dr McNitt-Gray/1B**, working the plan during the update, then resolve profile issues
- March 19th: open with **Dr Garg/Colorado**, working the plan during the update, then resolve profile issues
- March 26th: open with **Dr Athelougou/3A**, working the plan during the update, then resolve profile issues
- April 2nd: open with **Dr Fenimore/1C**, working the plan during the update, then resolve profile issues
- April 9th: open with **Dr Zhao/3B**, working the plan during the update, then resolve profile issues
- April 16th: spend the whole meeting on organizing for new NIBIB application

Next Steps:

- CT compliance section to be addressed on next call
- Next call scheduled for Monday, March 12th at 11 am CT