

## QIBA CT Volumetry Technical Committee (TC) Update Call

15 September 2014 at 11 AM CT

### Call Summary

#### In attendance:

Samuel G. Armato, III, PhD (Co-Chair)

Gregory V. Goldmacher, MD, PhD (Co-Chair)

Lawrence Schwartz, MD (Co-Chair)

Maria Athelougou, PhD

Hubert Beaumont, PhD

Andrew Buckler, MS

Heang –Ping Chan, PhD

Lubomir Hadjiiski, PhD

Rudresh Jarecha, MBBS

Hyun Grace Kim, PhD

John Lu, PhD

Michael McNitt-Gray, PhD

James Mulshine, MD

Nancy Obuchowski, PhD

Michael O'Connor, PhD

Kevin O'Donnell, MASc

Eric S. Perlman, MD

Adele Peskin, PhD

Daniel Sullivan, MD

Ying Tang, PhD

Amit VasANJI, PhD

Binsheng Zhao, DSc

#### RSNA:

Joe Koudelik

Julie Lisiecki

**Agenda:** Analysis subgroup discussion / 3A report – Dr. Athelougou to present to Tech Cttee.

#### Discussion:

- Presentation on the QIBA CT Volumetry, Group 3A work, “Inter-algorithm Performance Investigation Study (phantom data).” (Dr. Athelougou)
  - Primary purpose of this anonymized study was to support the current lung-based QIBA Profile
  - Participants tested the performance of proprietary algorithms
  - Descriptive statistics and analysis of variance (ANOVA) were used to test the software-based measurements of phantom volumes in terms of volume bias and variability, with analysis provided by Dr. Hyun Grace Kim.
- A subsequent clinical challenge used data from Memorial Sloan Kettering’s “coffee break” study and QIBA’s Group 1B.
  - A wide variety of nodules and slice thicknesses were used; some were outside of Profile parameters
    - Scans from different machines were used to inform the precision table within the Profile
- **Next steps for the 3A study include:**
  - Publication of the clinical study paper
  - Discuss future challenges and how these can support the QIBA Profile
  - A role in the field test for the Profile for CT Volumetry and compliance testing
  - Possible collaboration on a new challenge using a liver phantom under development by Dr. Zhao
- **Next steps for QIBA CT Volumetry include:**
  - Discussion of claim analysis/ compliance and the selection of metrics and data sets
  - Formation of data acquisition group under consideration

#### Pending Action Items for CT Volumetry:

- Most recent Profile claim language to be made available to any TC member interested in reviewing it between now and October 20<sup>th</sup>
  - Interested volunteer reviewers for image QA activity to email RSNA staff: [jlisiecki@rsna.org](mailto:jlisiecki@rsna.org).
- Group to contemplate how CT Volumetry can implement procedures for a technical confirmation phase

#### September Call Schedule:

1. September 22<sup>nd</sup> – Full TC: [Doug Steinfeld \(AGMednet\) – example of Profile use in the field](#)
2. September 29<sup>th</sup> – Full TC: Scan and recon subgroup presentation