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)  Rudresh Jarecha, MBBS  Kevin O’Donnell, MASc  Joe Koudelik
Gregory V. Goldmacher, MD, PhD (Co-Chair)  Hyun Grace Kim, PhD  Eric S. Perlman, MD  Julie Lisiecki
Lawrence Schwartz, MD (Co-Chair)  John Lu, PhD  Adele Peskin, PhD
Maria Athelogou, PhD  Michael McNitt-Gray, PhD  Daniel Sullivan, MD
Hubert Beaumont, PhD  James Mulshine, MD  Ying Tang, PhD
Andrew Buckler, MS  Nancy Obuchowski, PhD  Amit Vasanji, PhD
Heang –Ping Chan, PhD  Michael O’Connor, PhD  Binsheng Zhao, DSc
Lubomir Hadjiiski, PhD

RSNA:

Agenda: Analysis subgroup discussion / 3A report – Dr. Athelogou to present to Tech Ctte.

Discussion:
• Presentation on the QIBA CT Volumetry, Group 3A work, “Inter-algorithm Performance Investigation Study (phantom data).” (Dr. Athelogou)
  o Primary purpose of this anonymized study was to support the current lung-based QIBA Profile
  o Participants tested the performance of proprietary algorithms
  o 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.
  o 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 20th
  o Interested volunteer reviewers for image QA activity to email RSNA staff: jlisiecki@rsna.org.
• Group to contemplate how CT Volumetry can implement procedures for a technical confirmation phase

September Call Schedule:
1. September 22nd – Full TC: Doug Steinfeld (AGMednet) – example of Profile use in the field
2. September 29th – Full TC: Scan and recon subgroup presentation