QIBA Lung Density Technical Committee
September 10, 2014 at 2 PM CT
Call Summary

In attendance

Philip F. Judy, PhD (Chair)
Heather Chen-Mayer, PhD
Sean Fain, PhD
Matthew Fuld, PhD

RSNA
Bernice Hoppel, PhD
Songtao Liu, MD
David Lynch, MB
Nancy Obuchowski, PhD

Heather Chen-Mayer, PhD
Joe Koudelik

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Julie Lisiecki

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Agenda 9/10/2014: Lung Density Technical Committee

1. RSNA Meeting Poster plans
2. Discussion of Claims and Volume Correction Report
3. Status of AEC and IR Project
4. Acquisition and reconstruction specifications
   a. Report from Vendor Working Group
5. Plan to analysis sections of Profile

Next call: Wednesday, September 24, 2014 at 2 pm CT

Discussion:

• An RSNA 2014 poster was discussed, to focus on Profile development for both airway and lung density measurements
  o Dr. Fain to include some of the work done by Dr. Alfonso Rodriguez on Automatic Exposure Control
• Proposed revisions to claim language were discussed based on the continuing investigation of volume correction issues by Drs. Chen-Mayer and Fain
  o Claim language regarding performance criteria remains challenging due to the limited supporting literature
• A moderate approach may be possible by combining conservative and liberal approaches:
  o Part 1: if the change in perc 15 (“X”) is greater than 17.2 HU, then there is a 95% chance that this change is disease progression. (conservative)
  o Part 2: The actual change in perc 15 falls between X +/- 7 HU with 95% confidence, where 7 is derived from 1.96*SE and SE = +/- 3.5 HU as before. (liberal)
  o This approach encompasses recommendations made by the QIBA Metrology Group
• Expert opinions from clinical staff would be helpful in evaluating this approach
  o Dr. Fain to send four studies for review to Dr. Lynch
  o Dr. Lynch volunteered to ask his colleagues whether or not unpublished data may be available to support the claims
• Drs. Fuld and Hoppel are working with partner vendors in a parallel effort to determine what bearing these measurements might have for scanner acquisition protocols
  o Making measurements independent of vendor scanners is the goal for QIBA efforts, so that scans completed on different vendor scanners will generate the same output
  o Vendors are trying to determine the best way to test their systems for key acquisition parameters
  o Not all vendors have COPDGene phantoms; some may ask to borrow these from academic partners
  o Patient size is still an important adaptation for consideration

Action items:

• Dr. Fain to send four studies for review to Dr. Lynch
• Dr. Lynch volunteered to ask his colleagues whether or not unpublished data may be available to support the claims
• Drs. Chen-Mayer and Fain to send citations to Dr. Judy for inclusion in his EndNote program: philipfjudy@philipfjudy.com

Next call after 9/24: 10/08/2014 at 2:00 PM (CT)