

QIBA Lung Density Technical Committee

August 13, 2014 at 2 PM CT

Call Summary

In attendance

Philip F. Judy, PhD (Chair)

Andrew Buckler, MS

Ryan Chamberlain, PhD

Songtao Liu, MD

David Lynch, MB

Nancy Obuchowski, PhD

RSNA

Julie Lisiecki

Madeleine McCoy

Agenda 8/13/2014: Lung Density Technical Committee

1. Discussion of Claims and Volume Correction Report
 - a. Read draft and be ready to comment
2. Status of AEC and IR Project
3. Histogram corrections – basis for requiring histogram output
 - a. Volume correction
 - b. CT number
 - c. Public database with recommended corrections?
4. Review of acquisition and reconstruction specifications
 - i. Update
5. Citations to Profile
6. Plan to analyze sections of Profile

Next call: Wednesday, September 10, 2014 at 2 pm CT; there will be **no call** on **Wednesday, August 27th**.

Discussion:

- Current claim language was discussed in light of considerations from the Claims and Volume Correction Report brought forward by Drs. Chen-Mayer and Fain
- Dr. Obuchowski made some suggestions to aid the Lung Density Technical Committee in formulating their claim based on longitudinal precision measurements
- The following draft of the CT Volumetry Technical Committee claim was suggested as a model:
 - **LONGITUDINAL CLAIM:** The change in measured tumor volume is an unbiased estimate of the true change and can be measured with $\pm 30\%$ precision (see precision table below) with 95% confidence.

	Same Scanner				Different Scanner				
	Same SWS		Different SWS		Same SWS		Different SWS		
	Same Reader	Diff. Reader	Same Reader	Diff. Reader	Same Reader	Diff. Reader	Same Reader	Diff. Reader	
Precision*	10%	<i>Fill in</i>							30%

*The difference between two measurements is expected to fall between \pm precision 95% of the time when no change has occurred. Differences exceeding the precision value indicate a change in the tumor volume.

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Action items:

- Dr. Judy to send an article that he referenced to Dr. Obuchowski regarding biases
- Drs. Chen-Mayer and Fain to send citations to Dr. Judy for inclusion in his EndNote program: philipfjudy@philipfjudy.com.

QIBA CT Lung Density Tech Cttee next call: 9/10/2014 at 2:00 PM (CT)