

## QIBA Volumetric CT Colorado Planning Group, Project Update

Tuesday, September 4, 2012 at 11 AM CT

### Call Summary

#### In attendance

*Kavita Garg, MD (Chair)*

Hubert Beaumont, PhD

Andrew Buckler, MS

David A. Clunie, MBBS

Barbara Croft, MD

Paul Garrett, MD

Gregory V. Goldmacher, MD, PhD

Marios Gavrielides, PhD

Hyun Grace Kim, PhD

P. David Mozley, MD

Nicholas Petrick, PhD

Ann Scherzinger, PhD

Ying Tang, PhD

David J. Vining, MD

Luduan Zhang, PhD

#### RSNA

Joe Koudelik

Madeleine McCoy

#### Status Update

- Dr. Kim discussed the results of the experiment and acknowledged members of the review team.
- Dr. Scherzinger presented a slide set detailing results from Phantom Solid and Part-solid (PS) Nodules.
  - The absolute percent error in solid and part-solid nodules was discussed and compared to the CT Profile Claim language. Dose does not significantly affect the percent error measurement.
    - Appears to be true, however variability is increased at the lower dose.
  - Lesion total size did affect the measure, with larger lesions giving a greater percent error measure.
  - Part-solid nodules exhibit increased inter-reader and intra-reader and measurement variability, compared to solid nodule studies.
    - True-ICC for whole volume absolute % error.
- Dr. Petrick cautioned not to dismiss quantitation but to specify situations where quantitative segmentation does not work.
  - Drs. Petrick and Gavrielides to check the RECIST measurements and how they correlate to the volume.
- One conclusion of the experiment is that the quantification is not always achievable in specific situations.
  - It was suggested that a careful systematic study be conducted by September 30<sup>th</sup>
    - Needs to include a specific conclusion and a recommendation, not just a hypothesis.
    - The segmentation routines need to be consistent.
  - The team needs to negotiate the results, present the conclusions in the final report and determine whether the percent issues are a result of the software or possibly contrast issues.

#### Next steps:

- The team will reconvene and distribute the final results to the CT VOL Tech Ctte.
- Drs. Kim and Scherzinger to look into review algorithm and really understand the percent errors.
- The group is planning to meet the three week deadline.

#### Next Call:

- TBD