QIBA Vol-CT Weekly Update WebEx
September 22, 2008, 11am CDT
Draft Call Overview

In attendance:

Andrew Buckler, BSEE, MSCS (Chair)
Martin Barth, PhD
Ekta Dharalya
Charles Fenimore, PhD
Robert Ford, MD
Michael McNitt-Gray, PhD
P. David Mozley, MD
James Mulshine, MD
Daniel Nicolson
Kevin O'Donnell
Nicholas Petrick, PhD
Sandra Scheib, RN, MSN
Daniel Sullivan, MD
Linda Bresolin, PhD, MBA, CAE (RSNA)
Fiona Miller (RSNA)
Joe Koudelik (RSNA)

RIDER Study Overview – Part 1B

- A small pilot data collection from three different efforts underway
  - RIDER – patient and phantom data, including volumetric analysis pre & post coffee break data
  - Tony Reeves (Weil Cornell) pursuing a parallel effort – Cancer Resistance and Prevention website to be made public very soon (15-20 cases)
  - RIDER – FDA (Dr. Petrick) phantom data
- All data sets available via the NCIA website – to be made public by 9/25/2008
- Initial RIDER collection
  - MD Anderson Cancer Center and MSK collected multi-CT scans of same patient with no annotations
  - Dr. Fenimore currently conducting a data inventory
- RECIST "trouble" cases study proposed
  - To explore situations where RECIST is in trouble
  - Nodule size and complexity

Part 1B -- RIDER Inventory and FDA Analysis Overview -- Dr. Petrick gave an overview with slides

- Willing to work with QIBA even prior to public release dates
- General future plans could be integrated with those of QIBA
- Expand data collection to different hardware manufacturers
- Expand data collection to heterogeneous nodules
- Plan to have readers provide RECIST/WHO measurements

Software Availability Discussed

- Rick Avila offered newly developed KitWare tools
- Dr. McNitt-Gray offered UCLA software
- Goal is to test different software packages to determine percent of which variance is caused
- Minimum performance level required of multi-software packages
- Process is to move step-by-step for now

Andrew Buckler thanked Dr. McNitt-Gray for taking the reigns of the Part 1B effort

- This subcommittee needs more people
- Anyone interested in participating can email Dr. McNitt-Gray
- New validation plan update for Part 1B needed (Dr. Mozley to update)

Part 1A – Notion of Benchmark Data

- Too big for Merck to take on as is (per Dr. Mozley)
- Merck needs subset of data for initial evaluations to help make quick kill decisions
- Dr. Lori Dodd needed to help determine requires sample size
- Approx 30 sets of objects needed for comparison of image analysis - proposed
- QIBA needs to identify a "Study Data Set" to work with when testing different software tools
- QIBA to specify 30 study objects that Dr. Petrick could release as Benchmark data
- Determine what priorities are
- Divide into small groups/pieces
    - Spheroid, 1 slice, 2 exposure, etc
    - Perhaps 5 observers needed to start
    - Allocate resources as needed
- How to choose date subset?
    - Repetitive nodules
    - Nodules that show complications
    - More interesting lesions
    - Data that will test software to the fullest
    - Perhaps simple spheres to start
    - Part 1A will determine this data subset needed

Additional Part 1A Considerations

- Breakdown Part IA as we come to understand the tasks ahead of us
- Data set may not be too big – "Size might be equal to worth" as we gain insight in to the growing projects

QIBA Publication Policy Discussed

- QIBA data control before public release
- QIBA policy to be worked out by QIBA Planning Committee

Discussion Items for Next Call

- Dr Robert Ford (RadPharm) and Andrew Buckler (Philips) offered assistance (readers) - further discussion needed by the group
- Contacting Dr. Lori Dodd for statistical assistance with determining appropriate "Benchmarking" data sample size required
- Selection of Study Data Set (data subset) needed to begin moving forward