QIBA VOL-CT Weekly Update WebEx
Monday, November 17, 2008, 11am CDT
Call Overview

In attendance:

Andrew Buckler, BSEE, MSCS (Co-Chair)
P. David Mozley, MD (Co-Chair)
Lawrence Schwartz, MD (Co-Chair)
Martin Barth, PhD
Ekta Dharaiya, MS
Charles Fenimore, PhD
David Gustafson, PhD
Michael McNitt-Gray, PhD
James Mulshine, MD
Kevin O'Donnell
Nicholas Petrick, PhD
Daniel Sullivan, MD
Hiro Yoshida, PhD
Binsheng Zhao, PhD
Fiona Miller (RSNA)
Susan Anderson (RSNA)
Joe Koudelik (RSNA)

Review of upcoming QIBA Working Group Meeting (Dec. 4), Dr. Sullivan reporting

- Subcommittee break-outs to follow general plenary session
- Subcommittees may or may not re-convene

Reports from Subgroup 1C, Dr. Fenimore reporting

General discussion of draft document: *"Assessing Impact of Instrumental Variability on Volumetrics"*

- Dr. Fenimore will re-visit matrix (v.5) to tie more closely to 1C goals and parameters
- Matrix to be further developed to specify those with capabilities to work on each item and help identify collaborators
- Bull's eye target approach (Dr. Dorfman's suggestion)
  - Small number of sites considered high-quality
  - Larger number of intermediate sites
  - Largest number of sites worldwide that meet minimum standards
- Purpose of 1C effort is systematic exploration to answer precursor questions to fill in Profile details including range of settings on range of equipment which can be used in clinical trials.
  - Statistical workup on variables needed so that profiles can be documented
  - Profiles begin with a claim
  - Profiles specify all restrictions required to accomplish goal/claim
  - Overly restricted profiles may cut down of pool of available data - need to determine all parameters/settings that don't limit the potential data pool
  - Performance metric: evolve towards specifying parameter by performance as opposed to technical parameter
  - Which profile to start with?
    - In addition to matrix, produce phased profiles
    - Begin with profiles which benefit pharma most?
    - Define applicable areas on a small range of the variables presented in matrix?
    - Use approach of starting with most advanced cases, then ramp onto others?

        - Limit by manufacturer-suggested settings by various factors?
        - Produce commonly used parameters between scanners for reproducible results
    - Dose range and image/noise range will not correspond across manufacturers
    - Agree on boundaries, e.g. 16 slice and above; it will be challenging to match across scanners
    - Specify parameters based on task and level of performance required
    - What performance level is required?
    - Profiles needed for small and large nodules
    - Convergence possible when studying progression
    - Dr Mozley can donate cases; FDA cases (class of materials containing small nodules) also available

Action Items:

- Continue discussion of Subgroup 1C; comments from 1A and 1B welcome
- Dr Mulshine to confer with Dr Ford on what data has been acquired
- Joe to add Strawman Matrix (v5) to QIBA Wiki (http://qibawiki.rsna.org/index.php?title=Volumetric_CT)
- Plan for Dec. 4 working group session