

QIBA VolCT Update WebEx
Monday, March 23, 2009
11AM (CST)

Call Summary

In attendance:

Andrew Buckler, MS (Co-Chair)
David Mozley, MD (Co-Chair)
Lawrence Schwartz, MD (Co-Chair)
Johann Kim, MD (for Dr Athelougou)
Charles Fenimore, PhD
Frank Klein
Despina Kontos, PhD
Michael McNitt-Gray, PhD

James Mulshine, MD
Kevin O'Donnell
Nicholas Petrick, PhD
Hiro Yoshida, PhD
RSNA
Susan Anderson
Mary Cerceo

Review of Imaging Biomarkers Roundtable, March 16-17, 2009 (Mr Buckler)

- The meeting, which focused on roadmapping and a vision process for QI and imaging biomarkers, was facilitated by Dr David Dilts.
- Four breakout groups participated in the Roundtable: Oncology, Cardiology, Osteoarthritis and Funding/IP/Regulatory.
 - Mr Buckler led the Oncology breakout group at the Roundtable.
 - Review of final Oncology slide set from breakout group which contained needed steps and a timeline (3yrs, 5 yrs, 10yrs, etc.)
- Some frustration expressed among Roundtable participants with slow process of adoption; it is clear that research community would welcome guidance statements and the work of this committee
 - The Volumetric/CT group has been a leader in work process and level of granularity

Review of Profile Claims (Mr O'Donnell)

- Mr O'Donnell reviewed the work recently completed which included added material and reorganization.
- Has started relating *Claims to Data*
- Field is limited by lack of abundant raw data but people who have data need guidance about acquisition parameters which would decrease variance and increase data access by standardizing acquisition interchange
- Statistical Framework
 - Interest in bolstering the statistical framework; Dr McNitt-Gray will seek input from Grace Kim, PhD (UCLA statistician) about experimental design and adding values, e.g. replacing the 18% placeholder
 - Dr McNitt-Gray will mock-up after a discussion with Dr Kim about figures
- A solid framework moves discussion of change approach from level of change to a classical statistical approach; represents a scientific and technical elevation

- Define acceptance rates of error? Define classification error?
- Define level of certainty but don't become paralyzed; pursue as a parallel effort
- Status quo is nebulous but we must try to define and clarify what we are stating
- Resource Persons
 - Mr Buckler with work with Drs McNitt-Gray and Kim to seek to formalize Dr Kim's relationship with the committee
 - John Lu, PhD (NIST) is also active with Dr Fenimore in groups 1B and 1C

CaBIG

- Would like formal connection with CaBIG; Dr McNitt Gray works with CaBIG group and will introduce Mr Buckler via e-mail
- Annotation, image markup standard and controlled vocabulary still evolving
- Their goal is to have parties adopt CaBIG rather than creating new system
- Even in first generation, helpful for trials, like UPICT set of "ideal standards"

Review of *Profile Details* (Mr O'Donnell)

- Dr Ashton (VirtualScopics) provided imaging operators information for review including *CT Subject Data Transmittal Form* and *CT Subject Scanning Guide*
 - Securing permission for use of other redacted imaging operators manual materials submitted
- **Activity: Patient Preparation**
 - Added timing information/rate of administration to section on contrast administration
 - The comfort measures for patient minimize stress and motion; empty bladder may not be important in lung study but important in kidney study
 - Add "single breath hold at full inspiration"
 - To reproduce, must know what was done last time or set a default for performance
- **Activity: Image Acquisition**
 - Three rings of bull's eye:
 - ideal number is center of bull's-eye
 - target number --reasonable to most people
 - acceptable--minimum criteria
 - Working to define what we want re: detail on images (Field of View:Voxel Size Noise Level, Slice width and Noise and detail on acquisition parameters; review and comments welcome

Next steps

- Resume review of Claims/Details
- Dr McNitt-Gray will arrange e-mail introduction for Mr Buckler to CaBIG group
- Mr Buckler to work with Dr McNitt-Gray to formalize arrangement with Dr Kim
- Review and comments welcome on details under Activity: Image Acquisition
- Next call: Monday, March 30, 2009