

QIBA CT Volumetry Biomarker Ctte (BC) Call

17 August 2015 at 11 AM CT

Draft Call Summary

In attendance:

Samuel G. Armato, III, PhD (Co-Chair)
Greg Goldmacher, MD, PhD, MBA (Co-Chair)
Jennifer Siegelman, MD, MPH (Co-Chair)
Maria Athelougou, PhD
Hubert Beaumont, PhD
Charles Fenimore, PhD

Matthew Fuld, PhD
Rudresh Jarecha, MBBS
Philip F. Judy, PhD
John Lu, PhD
Michael McNitt-Gray, PhD
P. David Mozley, MD

James Mulshine, MD
Nancy Obuchowski, PhD
Eric Perlman, MD
Adele Peskin, PhD
Nicholas Petrick, PhD
Hiromitsu Tan'nai, MD

RSNA:

Joe Koudelik
Julie Lisiecki

Ad hoc Physics Discussion

- An *ad hoc* call was held recently for CT Volumetry BC physicists and engineers
- Results from this collaborative work on iterative reconstruction will be incorporated into the Profile

Profile Question Re: Conformance Recommendation

- Level at which to set the "QIBA bar" still to be determined
 - "Easier" initial conformance, with requirements increasing in complexity over time? *or*
 - "More difficult" conformance standard so that it is more meaningful?
 - BC leadership to review feedback from BC members

Suggested Topics for CT Volumetry BC Future Discussion:

- Liver phantom project update (late September or early Oct)
- Virtual lesion project update
- Profile – Discussion of where to set the pass threshold for algorithms
- Continuing the algorithms challenges using virtual lesion data
- The use of data from clinical trials – Pharma and/or ACRIN (outcome metrics needed)
- Planning the feasibility portion of field test
- Lessons learned for developing Profiles (invite process leaders and other Profile authors)

QIBA Group 3A: Future Direction

- Collaborative challenges with the synthetic lesions group (Dr. Samei) were proposed to continue the algorithm challenge effort
- Connections with pharma to access clinical data were suggested as a new pathway for challenges
 - Unknown intrinsic factors for each patient can also add challenges
 - Organizing a collaboration with pharma may prove difficult due to limited resources and the large scale of trial data needed

Proposed Poster Topics for QIBA kiosk at RSNA 2015

- Group 3A challenges, update on most recent clinical challenge (Dr. Athelougou)
- Liver phantom project update (Drs. Zhao and Petrick)
- Synthetic lesions project update (Dr. Samei)
- Small Lung Nodule Profile update (Dr. Mulshine)

Action items

- CT Volumetry leadership recommendation re: conformance requirements (Drs. Goldmacher, Siegelman)
- Revised vendor physics assessment procedure - (Drs. Boedeker and Samei, Mr. O'Donnell)
- Invite project PIs for upcoming presentations to the BC - (Dr. Goldmacher)
- Suggestions for fall call schedule topics to: jlisiecki@rsna.org

Next Calls:

- **August 31st**: Continuation of discussion on CT Volumetry conformance recommendation
- Other topics: Progress / future planning for the Profile, RSNA 2015 QIBA poster, BC topics for the fall