

QIBA Volumetric CT Group 3A Update

Thursday, 13 December 2012 at 11:30 AM CT (GMT-5)

Call Summary

In attendance

Maria Athelougou, PhD (Chair)

Peter Bajcsy, PhD

Hubert Beaumont, PhD

Andrew Buckler, MS

Barbara Croft, MD

Jovanna Danagouliau, PhD

Alden Dima, MS

Les Folio, DO, MPH

Guillaume Orioux, MSc

Sarah Sherlock, PhD

Ying Tang, PhD

RSNA

Joe Koudelik

Julie Lisiecki

General Updates

- Monday, February 25, 2013 has been confirmed for the QIBA 3A/ QI-Bench /kickoff Meeting (Gaithersburg, MD) for the next challenge
- Study design input from potential participants via an online survey tool was suggested and endorsed by call participants
- Questions could be tabulated before the kickoff meeting to help develop an agenda

Proposed Data options for the clinical challenge

- Submission of actual segmentation objects recommended despite creating a challenging analysis, though output formats may vary
 - Dr. Athelougou would prefer to keep the submission process as simple as possible
- Being an amalgamation of multiple “reference truths”, the STAPLE algorithm was suggested for use across data submissions
- Establish sensitivity and specificity per STAPLE: the further away an answer is from the crowd, the worse the result
- Consideration of a reference standard available from ITK.

Pros and Cons of potential segmentation methods discussed:

- STAPLE
- DICE
- Soft Staple
- VOTE
- P-Map
- Jaccard
- Rand
- Bivariate

More discussion is needed.

Challenge Promotion Suggestion:

- Dr. Beaumont suggested promoting the challenge on LinkedIn for greater visibility
- Potential participants could be surveyed regarding challenge design questions and interest in participation

Materials needed for Formal Invitation to the QIBA 3A/ QI-Bench /kickoff & next challenge

- Invitation to February 2013 workshop
- Travel logistics
- Draft agenda
- Doodle poll vote to potential participants for a more scientifically rigorous time-intensive challenge (*yes or no*)
- Survey link for participants to respond to targeted questions regarding design of the challenge
- “Ready-Talk” teleconference details to be provided by NIST for off-site attendees

Next Steps: Mr. Dima to prepare QIBA 3A Clinical Challenge Kickoff Meeting Email – to include logistics, draft agenda, Doodle poll voting link, link to online survey with questions to gauge preferences of potential clinical challenge participants.

Next call: *Thursday, December 20, 2013 at 11:30 AM CT. Save-the-Date: Thursday, January 10, 2013 at 11:30 AM CT.*