

QIBA Quantitative MRI Committee

November 18, 2009

11 AM CST

Call Summary

In attendance

Sandeep N. Gupta, PhD (Co-chair)
Edward Jackson, PhD (Co-chair)
Daniel P. Barboriak, MD
Michael H. Buonocore, MD, PhD
Jeffrey L. Evelhoch, PhD
Igor Grachev, MD, PhD
Gregory Karczmar, PhD
David E. Purdy, PhD

Daniel S. Reich, MD, PhD
Katherine Scott, PhD
Xiangyu Yang

RSNA

Fiona Miller
Susan Anderson, MLS
Joe Koudelik

Phantom data

- Second set of data from UPenn (from Mark Rosen and Sarah Englander) has been analyzed by Ed Ashton
 - Raw data from VirtualScopics processed and summarized by Ed Jackson
 - Corrected/uncorrected data correlation improvements in second set of data were seen, consistent with the findings reported previously
- Do not have UPenn Siemens T1 measurements from Ed Ashton yet
- Dr Jackson will ask Dr Ashton for documentation of analysis methods

RSNA 2009 poster

- Consistent data from two sites shown, labeled as sites A and B (UPenn, MD Anderson, respectively)
 - Poster reports QIBA DCE-MR committee initial objectives, phantom development, development of protocol, study itself, analysis and conclusions
 - Data from Site C (UChicago) referenced on poster but data not shown
 - Decision not to give specific examples of negative results because we have not determined reason for inconsistent data; need to understand underlying issues better
 - In determining source of data inconsistency, may eventually address protocol, equipment and/or QC
 - Discussion of framing issue at Meet the Expert sessions in efforts not to divulge equipment manufacturer and acquisition site (no one should divulge which site – A, B, or C – represents any specific vendor). The poster purposely “double blinds” the results with respect to vendor.
- Dr Buonocore to send Dr Jackson website with information on IRAT phantom, if different than the link currently shown on the poster
- Dr Jackson to follow-up with Dr Rosen on coils; could reveal just channel issue, not equipment issue
- Dr Barboriak noted a project with glioblastoma cases which has used QIBA protocol approach; will evaluate repeatability in this repeated baseline, zero-change, study
- Discussion of beginning collection of small projects in a database to provide information to address challenges in upcoming in vivo work

RSNA 2009 QI IB/QIBA meetings

Monday, November 30, 2009

QI IB Informational Meeting, 3:00pm-4:30pm, Lakeside Center, Room E352

- General information for all individuals interested in quantitative imaging
- Dr Zahlmann will report for the Quantitative MRI group at informational meeting

Wednesday, December 2, 2009

Quantitative Imaging Biomarkers Alliance (QIBA) Committee Working Meeting, 2:00pm-4:30pm, Lakeside Center, Room E270

- Topics for discussion:
 - Review of work plan with NIBIB funding; discuss next steps, if funded
 - Development of MRI Profile
 - Concrete Profile concept steps needed
 - Would like to use phantom study results from Claims
 - Additional phantom work may be needed
- Phantom study
 - Discuss timeline for next 6 months of phantom study
 - Review current status of acquisition site data; Penn T1 data would be helpful
 - Discussion with Dr Ashton of documentation of analysis methods, e.g., how ROIs are set, how averaging is done,. Documentation and access to the open source software will allow other people to be involved in analysis.
 - A walk-through of a test case by Dr Aston would be useful during the upcoming QIBA meeting.

Synthetic data project

- Dr Barboriak will resume work on project following RSNA 2009

Next steps:

- Dr Buonocore to send Dr Jackson website with information on IRAT phantom
- Dr Jackson to follow-up with Dr Rosen on coils; could reveal just channel issue, not equipment issue. (Dr. Jackson mentioned that the MD Anderson data were acquired using a 12-channel body array with 8-channels active.)
- Dr Jackson to determine whether Dr Ashton will attend Wednesday (Dec 2) working meeting for discussion of documentation of analysis methods
 - If not, will schedule future WebEx for phantom study discussion
- Dr Jackson will hand-carry poster to RSNA and deliver on Saturday (Nov 28)
- Dr Barboriak will resume work on project following RSNA 2009