

QIBA DCE-MRI Technical Committee Update
Wednesday, June 3, 2009
11:00 am CDT

Call Summary

In attendance:

Gudrun Zahlmann, PhD (Co-Chair)
Michael H. Buonocore, MD, PhD (Co-Chair)
Daniel P. Barboriak, MD
John Freymann
Alexander Guimaraes, MD, PhD
Sandeep N. Gupta, PhD
Edward F. Jackson, PhD
Gregory Karczmar, PhD
Janie Petti, RT
David E. Purdy, PhD

Mark Rosen, MD, PhD
Stephen Russek, PhD
Annette Schmid, PhD
Mitchell Schnall, MD, PhD
Katherine Scott, PhD
Daniel C. Sullivan, MD

RSNA

Susan Anderson
Joe Koudelik

Discussion Topics:

- NIBIB Proposal
- Status of Phantom Study

General Discussion

Dr Sullivan provided more detail concerning the pending submission of NIBIB proposal. Strawman projects needed, i.e. examples of projects the group would like to pursue if funding is received.

- NIBIB Proposal is divided into two parts:
 - Administration/management of QIBA
 - Direct project funding
- Will provide a demonstration of group capability without specifics
 - Need to justify need for NIBIB funding to accomplish projects and demonstrate why projects align with the QIBA process
- Provide an introduction of pre-work and future plans, explanation of test-retest project and financial outline in 8-10 pages max
- Particular sites or project details not needed
- First draft due to Dr Sullivan by June 12, 2009

Thanks expressed to Dr Rosen for composing the first draft/outline for the DCE-MRI group

- Draft distributed to specific group participants making contributions
- Dr Rosen to have narrative outline by the weekend
 - Dr Karczmar to be secondary editor
 - Using text from ACRIN protocol on tumor type and treatment is allowable (per Dr Rosen)
- Drs Jackson, Karczmar and Rosen to review the project outline for clinical and technical expertise for next week's follow-up call
 - Drs Jackson and Karczmar to describe clinical implementation challenges
- Drs Ashton, Karczmar, Rosen and Zahlmann to discuss outline off-line
- Drs Guimaraes, Schmid and Scott to provide clinical trial details
- Dr Jackson to draft short paragraph for current phantom project, i.e. preliminary achievements of phantom study:
 - Groundwork
 - Follow-up activities
 - Link to overall QIBA profile activities (technical and quality-related)

- Technical guidance
- Preliminary activities in QA and results
- Clinical groundwork next-steps

Discussion of Future Clinical Trials

- Who would run clinical trials? QIBA, CROs, CALGB?
- Will depend on PI at individual sites; PI and oncologist at each site recommended to oversee trials
- Do not commit to one institution to run all future clinical trials; need flexibility for each project
- ACRIN process for funding clinical trials includes review by committee, steering committee followed by NCI; speed of trial approval depends on whether applicant has funding
- Discussion to continue in next calls

Phantom Project Update (Dr Jackson)

- Completed additional phantom manipulations to align internal components of second phantom
- Data between phantoms compares well
- Need to analyze data first in order to refine protocol
- Phantom 1 ready for shipping to U Chicago on Friday, June 5, 2009 (Philips scanner)
 - Dr Karczmar also has access to a GE scanner
- Phantom 2 ready for shipping to Dr Rosen, U Penn soon after (Siemens scanner)
 - 2 Day UPS shipping suggested
 - Dr Rosen to confirm U Penn shipping address with Dr Jackson
 - Siemens Esprit scanner “time-to-acquire” needed to formalize protocol before sending phantom to UPenn
- Drs Jackson and Purdy to discuss matching/comparing Siemens and GE scanner parameters off-line
 - Need entire Siemens scanner protocol
 - EDX file OK
 - PDF format preferred
- Ann Arbor (Dr Philips) is a possible additional Philips imaging site
- Dr Guimaraes offered the Philips and GE scanners at MGH as back-up or future site

Secure NCIA Image Transfer Mechanism FTP Structure Available (Mr Freymann, NCI)

- Web-based access to a PACS-type of system
- Details to log into FTP sites to be sent to imaging site contacts and VirtualScopics
- Dr Jackson to upload acquired images to the NCIA FTP site when ready
- Dr Ashton to test image downloading from NCIA FTP site to VirtualScopics
 - Mr Freymann to follow-up with Drs Jackson and Ashton with any details/questions
- Mr Freymann to assist Dr Karczmar with image upload details from U Chicago
- PDF protocols posted to QIBA Wiki and accessible on NCIA site as well; NCIA is working on way to search pdfs

Synthetic Data Update (Dr Barboriak)

- Short text on synthetic data prepared for NIBIB proposal
- Discussion deferred to next call

Proposed Next Project: Liver Metastases and Imaging Techniques

- Rough estimate of 42 people at 6 sites
- Need an experienced site to perform project with good patient accrual
- 2 sites using each vendor machine = 6 sites minimum (GE, Philips, Siemens)

- Proposal was to continue with current phantom study imaging sites and include one extra (six total)
 - Dr Knopp (Ohio State) to assist with 6th site (Philips scanner)
- Who to perform statistical analysis?
 - Semi-formal statistical discussion needed
 - Drs Zahlmann and Ashton to discuss stat issues off-line

Next Steps:

- Phantom:
 - Siemens protocol needed; Drs Jackson and Purdy to meet at MD Anderson
 - Dr Jackson to send GE 14-15X (system) scanner download to Dr Karczmar
 - Phantom shipments proceeding
- NIBIB proposal:
 - Dr Sullivan to forward financial spreadsheet to Dr Zahlmann
 - Drs Ashton, Karczmar, Rosen and Zahlmann to discuss outline off-line; Drs Guimaraes, Schmid and Scott to provide clinical trial details