QIBA Quantitative DCE-MRI Subcommittee Update

Wednesday, June 09, 2010

11 AM CDT

Call Summary

In attendance

Gudrun Zahlmann, PhD (co-chair)
Sandeep N. Gupta, PhD (co-chair)
Edward Ashton, PhD
Andrew J. Buckler, MS
Igor D. Grachev, MD, PhD
Hendrik Laue, PhD
Jiachao Liang, PhD
Colin G. Miller, PhD
David E. Purdy, PhD
Annette Schmid, PhD
Mitchell Schnall, MD, PhD
Vijay Shah
Daniel C. Sullivan, MD
Xiangyu Yang, PhD
Thomas Yankeelov, PhD

RSNA

Fiona Miller
Madeleine McCoy

DCE-MRI Profile Update (Dr Gupta)

- Content being drafted for Sections I and III
- Note in Profile to state: "Profile limited to using special contrast agents, may not be applicable to all newer agents"
- Description of imaging protocols to be consistent with UPICT template sectioning; imaging protocol nested within the larger Profile
- A consolidated view from the vendor-side is needed, i.e. vendor recommendations in Profile
- DCE-MRI "writing committee" or group to work out issues of Profile
    - Volumetric CT and PET groups at various Profile stages
    - e.g. vCT and PET groups considering having small writing groups meet f2f just prior to the ACRIN meeting in Washington DC (Sept 2010); f2f gathers tend to solve more issues than done on t-cons; DCE-MRI group to consider meeting as well
- First draft due date suggested as July 7, 2010 (four week time frame)

IHE Process (Mr Buckler)

- "IHE-like" pathway to be reference model for drafting Compliance Section (IV); sect IV lays out the approach to the IHE integration process
- Need authors for compliance section (IV)

Phantom Update

- Phantom to be kept simple for ease-of-use across multiple acquisition sites
- Phantom should be traceable to physical NIST standards
- QIBA label of "vendor compliance" could be issued for subsequent MRI scanner performance testing
- Compliance will help vendors respond/listen to QIBA recommendations similar to the IHE approach
- Clinical trial sites (perhaps clinical care as well) could ask vendors to comply ("QIBA certify") their scanners for quality assurance
- DCR-MRI subctte to decide how specific phantom to be used for compliance section/detail

- ACRIN accreditation – consensus protocol could be for clinical trials and site accreditation as well; would clinical care use same phantom not determined yet

Writing assignments:
Four weeks timeframe to complete first DCE-MRI Profile draft; all material to Dr Gupta for collating

I. Clinical Content (Dr Schnall)
II. Claims (tbd)
III. Profile Detail/Protocol
    0- Exec Summary (Dr Evelhoch)
    1-Context of Imaging Protocol within the Clinical Trial (Dr Evelhoch)
    2-Site Selection, Qualification and Training (Dr Zahlmann)
    3-Subject Scheduling (Dr Guimaraes)
    4-Subject Preparation (Dr Guimaraes)
    5-Image-related Substance Prep and Admin (Dr Guimaraes)
    6-Individual Subject Imaging-related Quality Control (Dr Rosen)
    7-Imaging Procedure (Drs Gupta and Jackson)
    8-Image Post-processing (Dr Gupta)
    9-Image Analysis (Drs Ashton and Gupta)
    10-Image Interpretation (Dr Knopp)
    11-Archival and Distribution of Data (Dr Gupta)
    12-Quality Control (Dr Rosen)
    13-Imaging-associated Risks and Risk Management (Dr Gupta)
IV. Compliance Section (tbd)
V. Acknowledgments (tbd)

Next Steps:
- Continued discussion and writing assignments on Profile draft; Dr Gupta to follow-up with co-authors for feedback and comments; Dr Gupta to summarize/collate all sections into one document
- Dr Yang to follow-up (brief) Dr Knopp concerning the Image Interpretation section
- Next call schedule Wednesday, June 23, 2010 at 11 am CDT