

Notes on QIBA DCE-MRI Technical Committee Meeting at RSNA November 30, 2011

Agenda overview - Gudrun Zahlmann

Profile 1.0 Updates

- Wording that still needs to be addressed
 - Value of t_0 for IAUGC_{BN} (lines 523-526)
 - Recommendations – captured by Alex in “track changes” in v1.5
 - 7.2.6 – Use of human subjects
 - Recommendation – eliminate the section completely
 - Clean up table of references
 - EJ to address format
 - Appendix D tables
 - EJ to create GE data table
 - Alex to extract Philips info

Phase 1 Project Updates

- DRO Project – Barboriak
 - Data available on website
 - Tofts model data available – noise free version
 - T1 mapping data available – noise free version
 - Noise-added model for T1 just added to website last week (Rayleigh)
 - Noise-added Tofts model data will be completed next
 - Preference for feedback to Dan: 32-bit Analyze format parametric images
 - Action items:
 - Provide results to Dan
 - EJ – in house software
 - Mark R. - ACRIN
 - Check with Ed A at VirtualScopics
 - Sandeep – Kinmod
 - Jain – NordicICE (Henry Ford)
 - Ultimately: Develop compliance criteria
- Phantom Project – Jackson
 - Finalized design with Josh Levy at The Phantom Laboratory
 - Materials identified
 - Fabrication underway at The Phantom Laboratory, but all filling solutions will be prepared and final phantom assembly will be performed at MDACC
 - Action items:
 - Sites will be identified for multisite / multivendor testing
- Software Project – Ashton
 - First phase software completed, but revision required.
 - Package currently being revised by VirtualScopics software team
 - Action items:
 - Phone conference specifically for this project to have Ed A provide an overview of the outputs as well as the algorithms utilized
 - Potentially try to use existing prototype phantom DICOM data for demo

- Phase II Project – Rosen
 - Reviewed current status of QIBA/ACRIN test-retest project
 - Justification of model (prostate with “whole prostate” for analysis)
 - Axial acquisition mode
 - Will include diffusion data (has discussed with QIN/Chenevert)
 - Justification of field strength = 3.0T without e-coil
 - Option for B₁ correction? (Dual flip angle based) – Not part of protocol, but can be investigated
 - Goal: 30 patients at 6 sites with 3 vendors
 - Temporal resolution target is currently ~10 s
 - Action items:
 - Decision on parallel imaging option?
 - Finalize other acquisition parameters (section thickness, FOV, etc.)
 - Current thought: 5-mm sections
 - Option for waiver to QIBA members to get access to data/results
 - Incorporating phantom into the site qualification process and ongoing QC

- Other (interim) field test projects – very limited time to discuss
 - Try to obtain info from Roche and others who have used the profile (exactly or varying degrees) on the success / limitations of the profile recommendations

- Profile compliance discussion – Zahlmann
 - No time to discuss

- What is next?
 - Profile version 2.0 – no time to discuss
 - Extension of activities to DWI
 - Reviewed current status of discussions with QIN/NCI
 - First draft of QIBA proposal developed by Gudrun (already distributed to Larry Clarke)
 - Action item:
 - Gudrun will send draft of proposal to QIBA DCE-MRI technical committee
 - Gudrun will follow-up with Larry Clarke and Michael Boss
 - Identification of potential additional committee members to address specifically the diffusion project
 - Image reference database – no time to discuss