

QIBA fMRI Technical Committee Update

Wednesday, August 29, 2012 at 11 AM CT
Call Summary

In attendance

Cathy Elsinger, PhD (Co-Chair)

Ted DeYoe, PhD (Co-Chair)

Harris Ahmad, MD

Paul L. Carson, PhD

Andrew J. Kalnin, MD

Feroze Mohamed, PhD

James L. Reuss, PhD

Laura Rigolo, MS

Katherine Scott, PhD

David Soltysik, PhD

Daniel C. Sullivan, MD

James Voyvodic, PhD

RSNA

Joe Koudelik

Julie Lisiecki

QIBA fMRI Technical Committee Call Agenda, August 29, 2012

1. Updates regarding funded projects – Drs. Voyvodic and DeYoe
 2. Workflow Matrix/Polling - Dissemination to occur after summer break ends
 3. Discussion topic for upcoming reproducibility meeting (Drs. Sunder Rajan and David Soltysik)
 - Their research work on reproducibility of fMRI is related and may be useful to incorporate in the Profile
 - Group to discuss his paper on the 9/4 fMRI Reproducibility call
 4. Posters for RSNA
 - Each Tech Ctte will have the opportunity to present one poster on group projects at the **RSNA 2012** Annual Meeting (at the QIBA Kiosk area).
 - Deadline: Hard-copy posters are due by **Thursday, November 1, 2012** to RSNA Headquarters so that staff may coordinate shipment to the McCormick Place Convention Center.
 - For reference, the 2011 posters are available on the QIBA WIKI:
http://qibawiki.rsna.org/index.php?title=QIBA_posters_and_plenary_session_presentation_from_RSNA_2011_Annual_Meeting
 5. Profile Development
 - Pick up with section by section discussions.
 - New Profile writers meeting being scheduled as follow up to meeting last week of June.
 6. Digital Reference Object – Invite Dan Barboriak to next call or future call?
 - Database DROs might be a promising focus of the next fMRI project
 - Focus would be on methodology, statistical analysis, and post-processing
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Discussion

1. Update on funded projects

- Teams are finalizing reports by analyzing project results and looking for patterns in the data, particularly in relation to threshold settings

2. QIBA fMRI Survey – Next Steps

- Dr. Elsinger to follow up with Dr. Barboriak and Mr. Cammarata for dissemination in September

3. Paper presentation at next Reproducibility meeting, Tuesday, Sept 4th

- Dr. Soltysik to discuss his research paper: *Standardization of Magnetic Resonance Imaging for Clinical Endpoints in Neurology*

4. QIBA fMRI Technical Committee Poster for RSNA 2012

- Group to organize poster by using the results of the 3 projects in support of the Profile claim.
- Call for volunteers to develop content and prepare/format poster
- Drs. DeYoe, Pillai and Voyvodic to oversee development of 1/3 each
- The hard copy of the poster will be **due to RSNA by November 1st**.

5. Update on Profile Development

- The group is currently considering two claims that need further refining.
- Sources of variance must still be addressed, especially in terms of compliance issues.
- Data analysis is under way – results will help support more aggressive Profile Claim revisions
- Continue to focus on sources of variance as basis of Profile
- Noted was that one parameter does not fits all situations; metrics are more than the “center of mass.”
- The group will continue from section 2.8.1 of the Profile) on the next call.
 - Quantification of the signal and handling of noise must also be addressed.
 - Task-dependent SNR will likely be the prime qualifier.
 - Good signal to noise ratio is important to successful measurement.
 - Troubling examples of disruptive signal to noise included interference from pagers and the elevated train.
 - Noise from these outside sources affected the measurements.
- Distinction between a Profile and protocol was also discussed, including target audiences for both documents.
 - Example provided: “a protocol is to a recipe as a Profile is to achieving performance parameters you want to meet.”
- End of October 2012 targeted for first draft of QIBA fMRI Profile

Next Steps:

- Dr. Elsinger to follow up with Mr. Cammarata at ASNR regarding survey dissemination to ASNR and ASFNR
- Dr. Mohamed to send latest version of the Profile to Dr. Elsinger for continued discussion on next call
- Drs. DeYoe, Pillai and Voyvodic to begin working on poster for RSNA 2012 – dividing it into 3 sections for updates on projects as related to the claim

Next Meetings

- QIBA fMRI Reproducibility WG, *Tuesday, September 4th at 11 am CT*
- QIBA fMRI Technical Committee, *Wednesday, September 12th at 11 am CT*