

QIBA fMRI Technical Committee Update

Wednesday, April 24, 2013 at 11 AM CT

Call Summary

In attendance

Ted DeYoe, PhD (Co-Chair)

Cathy Elsinger, PhD (Co-Chair)

Jeffrey Petrella, MD (Co-Chair)

Paul L. Carson, PhD

Barbara Croft, PhD

Feng Luo, MD, PhD

Laura Rigolo, MS

David Soltysik, PhD

Daniel Sullivan, MD

James T. Voyvodic, PhD

Kirk Welker, MD

RSNA

Fiona Miller

Joe Koudelik

Julie Lisiecki

QIBA fMRI Technical Committee Call Agenda, Wednesday, April 24, 2013 (11 AM CT)

1. Articles to circulate (attachment A)

Variability of Clinical Functional MR Imaging Results: A Multicenter Study

Radiology - Published online before print March 22, 2013,

doi: 10.1148/radiol.13121357 (Jeff)

Wager – fMRI of Pain NEJM 2013 (Dan) (potential of using fMRI as a biomarker of response to putative analgesics in clinical trials?)

2. QIBA Annual Meeting

- May 14 -15 Breakout tentatively scheduled 5/14 – 3:15-5:00, 5/15 10:30 - end of day.
- Cathy will bring posters from ASFNR to display, small projector for working on profile
- Phone in for those who would like to dial in
- May 14 presentation from each TC regarding Compliance procedures and New projects to be funded

3. Future funding – we will have opportunity to respond to RFP in a couple of months. We need to submit a draft list of projects which will enable progress and/or (ideally) completion of Profiles during May 13th Steering Committee meeting. We should estimate budgets to the best of our ability. Project list due to Joe by May 3rd.

- a. Attachment B describes statement of work we established last fall
- b. Attachment C draft of Profile Stage (2/23/13)
- c. Attachment D – 3 year Deliverables as outlined 6/2012

Discussion

Articles

- Dr. Sullivan referenced some articles that may lead to possible clinical trial real-world use cases in the long-term and for exploration of reliability data in the short term.

QIBA Annual Meeting – Discussion for the breakout session

- Goal will be to consider future project proposals with estimated budgets and to continue refining the Profile draft

Field Testing to Validate Profile

- Future Profile refinements would benefit from field testing, i.e., to validate specified technical parameters
- Costs associated for the field testing effort will need to be estimated
- Sites selected would have to demonstrate compliance with acquisition procedures
 - Confirmation that test sites are adhering to the image acquisition protocol may require oversight and travel
- Field testing may begin with healthy individuals but will also need to include actual patients
 - Prospective IRBs for patient volunteers would be needed
- Data acquisition procedures need to be clarified

- Claims need to be achievable
 - Refine technique, field test performance, and refine protocol, drilling down to optimal procedure
 - First -round implementation to see if participants have achieved the claim
 - Main issue is reproducibility of results
- A minimum of three types of datasets would be required for comprehensive testing
- Developing a Digital Reference Object (DRO) to be considered
- Consideration for set up time and effort required for an image archive will also be discussed
 - Concern expressed regarding storage protocol for patient data sets

Meta-analysis of Key Literature

- Summarize key papers re: hippocampus using different scanners and parameters
- Use shared common data set and FDA-approved algorithms
- Use ADNI data as a reference standard and supplement with European data

Action items:

- Dr. Elsinger to review latest draft version of the Profile and to review procedural steps to determine if any are missing
- Drs. DeYoe and Voyvodic to document procedural steps used on their funded projects

Next calls:

- QIBA fMRI Bias WG call - **Tuesday, April 30th**, at **10am CT**
- QIBA fMRI tech committee call - **Wednesday, May 8th**, at **11am CT**