

QIBA fMRI Subcommittee Update

Wednesday, April 7, 2010
11 AM CDT

Call Summary

In attendance:

Cathy Elsinger, PhD (co-chair)
Joy Hirsch, PhD (co-chair)
Andrew Buckler, MS
Ted DeYoe, PhD
Edward Jackson, PhD
James L. Reuss, PhD

Douglas M. Tucker, PhD, MBA
James T. Voyvodic, PhD

RSNA

Susan Anderson, MLS
Joe Koudelik

QIBA Update (Dr Elsinger)

- Draft documents, reference documents and call summaries are posted on the fMRI wiki (http://qibawiki.rsna.org/index.php?title=FMRI_subctte). Wiki is open to all and does not require log-in for viewing; subcommittee members have received password for wiki editing privileges; contact Joe Koudelik, jkoudelik@rsna.org, with questions
- QIBA annual meeting scheduled for May 25-26, 2010 in Chicago

Cross-representation of QIBA and DICOM Working Group (Dr Tucker)

- Dr Tucker has contacted chair of DICOM Working Group 16; cross-representation will be broad topic of discussion at upcoming April 14-15 meeting of the DICOM group in Bordeaux, France
- Dr Tucker will ascertain whether any parts of the April mtg will be web-conferenced and will report back to group
- Cross-representation would benefit both sides, giving IHE and DICOM context of parameters and clinical perspective on good practice, optimizing workflow, etc.
- Dr Tucker will report on follow-up; further discussion needed on formalizing invitation for cross-representation

QIBA fMRI Profile draft (Dr Elsinger)

- Review of Profile draft revised sections on Intended Use and Claims re: eloquent cortex, reducing variability and increasing reproducibility
- Important to address the audience with uses of the Profile and clear understanding of how it will be a tool for standardization of fMRI techniques; goal is to standardize a library of paradigms for fMRI for presurgical mapping
 - Will address both novice users who need guidance on which paradigms to use and vendors who want to provides tools and guidance
 - Will emphasize creating a process or set of criteria for increasing quality control and reducing variability; identify key issues and criteria for deciding whether a methodology or paradigm is useful
- Starting point is simple case scenario of assessing presurgical motor mapping; can move later to language mapping and flow chart
- Survey of the literature can determine needs and identify relevant issues for each step and can document Claims as background for *how* and *why* decisions; subdivide literature into reference types
 - Can provide background once threshold is identified, e.g. particular modality or parameter such as language
 - Literature is also a specific deliverable for FDA qualification pathway
 - Members should forward specific citations to Dr Elsinger
- ASFNR multi-center trial can also inform Claims/Profile
- In Profile:
 - Include active and passive task, regardless of modality
 - Incorporate quantitative biomarkers concept in Claims, e.g. not only which regions are activated but extent to which they are activated
 - Include quantitative indicators where possible as well as acceptable ranges and identify problems

- Dr Elsinger will look at BIRN work to build Claims 1&2; Dr Voyvodic to provide information on BIRN to Dr Elsinger
- Claim 3 addresses statistical analysis of results of visualization
- Discussion of process for building out individual Claims (by individual or team) and methodology of guideline development, e.g. by motor or language sets, by types of reference materials, by modality, task section or reproducibility

Next Steps:

- Comments and changes to Draft Profile sections on wiki encouraged
http://qibawiki.rsna.org/index.php?title=Profile_Development
- Dr Elsinger will look at BIRN work to build Claims 1&2; Dr Voyvodic to provide information on BIRN to Dr Elsinger
- Members should forward specific literature citations to Dr Elsinger and/or Joe Koudelik,
jkoudelik@rsna.org
- Continue discussion on assignments for Profile development
- Next call scheduled for Wednesday, April 21, 2010 at 11am CDT