QIBA fMRI Biomarker Committee (BC) Call

Wednesday, February 8, 2017 at 11 AM CT

Call Summary

In attendance

Ted DeYoe (Co-Chair) Feroze Mohamed, PhD James Voyvodic, PhD
James Reuss, PhD (Co-Chair) Jay Pillai, MD Zhiyue Jerry Wang, PhD
Andrew Kalnin, MD David Soltysik, PhD Kirk Welker, MD

RSNA

Susan Weinmann

Review of Previous Call Summary

• The 1.25.2017 call summary was approved as presented

fMRI Profile v1.0 draft (All)

• To support concurrent access and editing, the fMRI Profile v1.0 is on Google docs at:
  https://docs.google.com/document/d/1M8XywKVVfSSx_TfLqFTrsCw/edit?usp=sharing
• Anyone with the above link can submit comments, while only a small group has editing privileges
• Discussion focused on specification table in Section 3.3: Periodic QA
• Deliberated specifically on Temporal SNR (tSNR) Parameter: “Prior to starting the clinical fMRI practice shall confirm the tSNR ≥ 0.71 x average SNR of the phantom.”
  o fMRI BC members commented on practices at their institutions
    ▪ Dr. Welker: a daily ACR QC is performed as well as a weekly, detailed fMRI QC
    ▪ Dr. Wang: ACR and fMRI QC performed weekly
    ▪ Drs. Welker & Pillai execute a breath hold with many patients, which provides another QC check. In addition, raw EPIs are checked for distortions.
    ▪ No one on call in clinical practice is doing temporal SNR with phantoms on a regular basis
  o Dr. Soltysik to locate a reference for the 0.71 factor
  o Any other open issues to remain open in this Profile version 1.0

Profile 2.0 Proposed on Language Mapping

• Profile v1.0 to be used as a template for the next proposed Profile
• In addition to center of mass, language lateralization will be included; spatial extent measure may be included
• Likely need claims for multiple language centers (separate COM) and use of multiple paradigms
• Profile 2.0 writing volunteers to be requested in April (after 1.0 has been completed)
• Dr. Pillai volunteered to serve on the fMRI Profile 2.0 Writing TF
• ASFN efforts to be used for v.2.0 Profile
  o ASFN standards project – goal is to progress toward standardization by converging clinical practice on standard language paradigms

Next calls:

• QIBA fMRI Bias TF call - Tuesday, February 14 at 10am CT
• QIBA fMRI Biomarker Committee call – Wednesday, March 8 at 11am CT (February 22 call re-allocated to Q1 MR Coordinating Committee Call)