QIBA fMRI Bias Work Group Call

Tuesday, April 30, 2013 at 10 AM CT Call Summary Additional notes provided by Dr. Voyvodic

Participants

Jim Voyvodic, PhD (chair) Ted DeYoe, PhD Erich Huang, PhD Feroze Mohamed, PhD Jeffrey Petrella, MD Jay J. Pillai, MD Laura Rigolo, MS David Soltysik, PhD Daniel Sullivan, MD **RSNA** Joe Koudelik Julie Lisiecki

Agenda: Discussion of bias and linearity issues in the context of future QIBA fMRI projects. Goal to identify the problem with current fMRI variability and write a Profile based on what has been tested and proven to work.

Discussion:

- Finishing current Profile incorporating Metrology thinking is priority as the main "group project"
- Consideration of approaches to field testing:
 - 1. Field test on newly collected research data
 - Have sites test current Profile protocol to acquire reproducibility data
 - Test whether data collected according to the Profile satisfies the Claims
 - 2. Field test on existing data and synthetic data
 - We provide reproducibility (scan/rescan) human data sets
 - We provide realistic synthetic scan/rescan data sets, with known activations and variability
 - Have sites analyze data as per the Profile and test whether results satisfy Claims
 - Challenge sites to analyze the data using alternative procedures and test whether results satisfy Claims
 - Have sites do similar analyses on their own repeat scan data sets
- Dr. Pillai mentioned the limitations of adding Profile-recommended software procedures to commercial fMRI systems being used in clinical settings

Next steps:

 Continuation of discussion on May 8th Technical Committee call–Future planning for QIBA fMRI projects and next steps to be discussed at QIBA Annual Meeting

Next calls:

- QIBA fMRI Technical Committee, Wednesday, May 8, 2013 at 11 am CT
- QIBA fMRI Bias Working Group, Tuesday, May 28, 2013 at 10 am CT
- Please note: There will be NO QIBA fMRI Bias Working Group call on Tuesday, May 14th due to the QIBA Annual Meeting. Thank you.