**MR Imaging Teleconference Minutes 12/17/2019**

**12/17/2019 -- MRI Core Call Agenda Minutes**

1. **MRI Analysis Processing Report – Update – Danielle Harvey**

Reviewed the spreadsheets provided.  Graphs were very helpful in visualizing shortfalls in image analysis.

For January, Danielle Harvey’s group will work on a missing list for all labs.  Include Subject ID, Date

Will review ADNI2 until we are satisfied with progress, but will continue to follow ADNI3 closely moving forward.

1. **ASLs labeled as fMRI – Update – Karen Crawford**

ASL will be categorized correctly moving forward, but LONI is still working on fixing previously incorrectly labeled scans, hoping that fix is implemented in the next week or so.

Follow up next call.

1. **Philips Advanced Protocol Update**
   1. Changes forthcoming
      1. Moving to 3TE Axial T2 Star
      2. Moving to 3D pCASL
      3. Multiband DTI?
      4. Multiband fMRI?
         1. Seeing MB artifact on fMRI and DTI
            1. fMRI

Should we keep TR at 3 seconds (standard fMRI)?

Introduce 1 second TR MB image?

* + - 1. DTI (Attachment)
         1. MB = 4, 2x Phase Acceleration

DTI - Artifacts are noted on MB DTI, should we accept artifacts, go without MB, or make a compromise?

Dr. Thompson was not on MRI core call, so we are going to table discussion until we hear from him.

fMRI – As MB increases so does relative artifacts, so it hardly seems worth changing since we cannot get to the TR that is running on Siemens MB systems.

REVIEW

1. Moving to 3TE Axial T2 Star (will make change, there is no downside, added echos will allow for pseudo QSM)

ii. Moving to 3D pCASL (will make change, better ASL sequence will be more in line with GE 3D pCASL)

iii. Multiband DTI? (No decision made, waiting to hear from Dr. Thompson before making decision – (not on call)

iv.Multiband fMRI (will NOT change, Keeping non MB  will allow data to be backward compatible to 2010)

1. **Dr. Tosun will present her results on structural imaging issues concerning scan heterogeneity.** 
   1. As a precursor to the above mentioned paper analysis sites will present some of the issues they have seen already in their analysis.
   2. Dr. Thompson will present in January

Reviewed Dr. Tosun’s PowerPoint.  It was clear that harmonization is needed for data between ADNI1, ADNI2 and eventually ADNI3.

1. **On-going - Paper on Unavoidable technical heterogeneity within sequences.**
   1. Presenting this as a major aim of an ADNI 4 renewal would be very attractive.
   2. Dr. Gunter will spearhead effort to create a comprehensive paper with considerations on manufacturer/hardware/software/coil/sequence changes seen in ADNI.  Will publish and make available on publically on the LONI website.

Noted

1. **On going - Publications by each lab on the numeric data they produce.** 
   1. Need a document (spread sheet, PDF) from each lab that is updated quarterly

Noted