EIBALL: QIBA ASL profile meeting

17:00 CEST, December 11th 2018 – online meeting

Attendees

- Rik Achten
- John Detre
- Xavier Golay
- Peter Gordebeke
- Peter Hardy
- Luis Hernandez-Garcia
- Ed Jackson
- Henk Jan Mutsaets
- Nancy Obuchowski
- Aaron Oliver-Taylor
- Thijs van Osch
- Arastoo Vossough
- Chris Woodlow

Summary

X. Golay opens the meeting and asks all attendees for their opinions and input on the best way to move forward, as he would like to quickly move to a point where the Profile is accessible for people outside of the committee for further feedback. For this, there is a need to agree on certain aspects as a committee, in particular the claims and clinical interpretation. A large part of the conformance has been established and populated in the first round of revisions, but the details are still missing.

H. Mutsaerts suggests to get together in a LAN party setting to work on the Profile at the ISMRM, or at the ISMRM ASL Workshop in Ann Arbor. M. van Osch suggests to schedule a closed session half a day before the Ann Arbor Workshop.

X. Golay would like to meet at the next RSNA as well, also to show QIBA and the RSNA that there is progress.

H. Mutsaerts suggests to have X. Golay, R. Achten and M. Günther (for instance) supervise working groups of small people to work in parallel. X. Golay believes this is a good idea, and adds that an in-person meeting ahead of time could be helpful for the coordination. He also adds that the claims are something that requires approval of the entire committee. E. Jackson reiterates the importance of establishing the claims with approval of the entire committee. After that, small groups can be formed for separate tasks. This is something other committees have done. Much of the Profile development process remains sequential, but some tasks can indeed be done in parallel by smaller groups once the claims have been agreed upon.

X. Golay indicates there is still some work left on the repeatability and reproducibility aspects, and asks N. Obuchowski if data is needed for claims related to repeatability and reproducibility. N. Obuchowski confirms this.

X. Golay shows the poster that was presented at RNSA on behalf of the ASL committee (the poster has since been distributed to everyone via email). He reports there was a reasonable amount of passage and interest in the poster. It included organizational updates, an update on the Profile and on the conformance progress, and the simple performance claim that ASL can indeed measure CBF.

A lot of parameters for the Profile are taken from the whitepaper that was published. These provisions can used for the Profile as well, and there is good reason for it as most people are adhering to these parameters, which provides a good summary of the parameters people are using.

The poster also presented a pipeline for ASL which will be included in the second whitepaper. This pipeline has seen more than 8000 scans from multiple vendors and a variety of subjects. H. Mutsaerts adds that ASL-BIDS (brain imaging data structure) is also included in the poster. This is a convention for the file naming structure.

One of the ongoing projects that is included in the poster is the round-robin trial. X. Golay indicates the variation in signal was quite a discovery when the phantom was used in multiple centers and scanners. In general, the signal was very different from one vendor to another. L. Hernandez-Garcia asks if this variation is linked to the vendor, as some vendor sequences are limiting. X. Golay answers that this is correct to a certain extent, however this was controlled for up to a certain point by using R. Achten's settings and values. R. Achten asks if the labeling efficiency could play a role. X. Golay indicates this was one of the reasons for the test and that it needs to be discussed. Systems from the same vendor also showed variance, so labeling efficiency could be a reason.

L. Hernandez-Garcia asks about the velocity. A. Oliver-Taylor reports the settings, which according to J. Detre are reasonable. In light of this, the labeling efficiency might be a good explanation.

X. Golay asks if R. Achten would agree to arrange another round-robin test, as an effective test-retest. R. Achten agrees. J. Detre adds that it would be good to do these longitudinal tests in multiple labs from the first round. L. Hernandez-Garcia suggests to discuss the experimental setup at the ASL Workshop as it can inform the second version of the whitepaper. X. Golay agrees.

X. Golay shares that the development of the next poster for RSNA will be started earlier so more people can be included in the writing. He apologizes for the short notice.

L. Hernandez-Garcia provides further details on the workshop in Ann Arbor. The organization is going well, and they'll schedule an ASL committee meeting. He also indicates that there will be a course on ExploreASL and ALS-BIDS the day before the workshop. H. Mutsaerts asks all attendees to provide their feedback on ASL-BIDS. More information can be found here: https://docs.google.com/document/d/15tnn5F10KpgHypaQJNNGiNKsni9035GtDqJzWqkkP6c/edit#heading=h.bi3zppbn3e2o

X. Golay thanks everyone for their attendance and contributions and wishes happy holidays.