

## QIBA Perfusion, Diffusion and Flow – MRI Technical Committee Update Call

Wednesday, 6-February-2013 at 11 AM CST (GMT-6)

### Call Summary

#### Participants

Edward F. Jackson, PhD (Co-chair)  
Michael Boss, PhD  
Andrew J. Buckler, MS  
Martin Buechert, PhD  
Thomas L. Chenevert, PhD  
Patricia E. Cole, PhD, MD  
Dena Flamini, RT

Daniel Gembris, PhD  
Gregory Karczmar, PhD  
Jiachao Liang, PhD  
Chen Lin, PhD  
Thanh B. Nguyen, MD  
Thorsten Persigehl, MD  
David E. Purdy, PhD  
Mark Rosen, MD, PhD

Ying Tang, PhD  
Neelam Tyagi, PhD  
Xiangzhi Zhou, PhD

#### RSNA

Joe Koudelik  
Madeleine McCoy

### General Discussion

The latest version of the QIBA DW-MRI Profile Claims was discussed (Dr. Boss)

- The QIBA fMRI Profile and Metrology Work Group Claim Template were used as a model.
- Comments on the current draft should be sent to RSNA staff or Dr. Boss.
- Issue of linearity:
  - Supporting literature with regard to linearity is limited.
  - Drs. Boss and Chenevert are working on a traceable DWI phantom for measurements over a range of ADC values. This would allow a more specific assessment of bias / linearity over a specified range of values.
  - In the absence of adequate literature or measured data, it was suggested to include placeholders for unresolved issues with regard to bias / linearity and address such issues with future groundwork results, if funding for such studies is secured. (Recall that there is already a defined DWI phantom groundwork project ready to proceed if funding is secured.)
  - Technical conditions to validate the Claim are still needed.
- Terminology should be consistently used. Repeatability and reproducibility are well defined and are preferred Metrology Work Group terms. There may be a need for a glossary of terms within the Profile for readers who may not be familiar with metrology terminology. Dr. Boss has already started this section in the current draft.
- Minimal detectable change is the key concept when defining longitudinal change.

ACRIN 6701 Test/Retest Protocol Discussions (Dr. Rosen)

- There are no updates to be reported at this time. ACRIN calls continue every other Wednesday at 1pm (ET) and Dr. Rosen encouraged TC members to participate, if interested.

Face-to-Face Meeting Updates (Dr. Jackson)

- There was a meeting on 1/30/13 of the QIBA Task Force on Commercial Business Models to explore potential revenue-generating ideas to sustain QIBA. Dr. Jackson presented a brief review of the outcomes of the discussions at this meeting.
- The QIBA Steering Committee met on 1/31/13
  - Dr. Jackson gave an overview of the PDF Technical Committee report that was presented at the meeting and covered the following topics:
    - Updates on all Phase I and Phase II NIBIB/QIBA projects
    - PDF-TC Gaps for DCE-MRI Profile 1.0, DCE-MR Profile 2.0 (3.0T), and DW-MR Profile 1.0
    - The PDF TC 2-year plan
    - The PDF TC report can be found at [http://qibawiki.rsna.org/index.php?title=Perfusion%2C\\_Diffusion\\_and\\_Flow-MRI\\_tech\\_ctte](http://qibawiki.rsna.org/index.php?title=Perfusion%2C_Diffusion_and_Flow-MRI_tech_ctte)

- The value and practicality of the Modality Committees was discussed at length, i.e., should these committees remain or should we just have the TCs. If the Modality Committees remain, what should be their role(s)?
- Profile stages matrix: Field testing and compliance; clinical “validation”. These concepts are not well-defined and need to be.
  - This will be a topic for the May QIBA Annual Meeting
  - The current profile stages matrix can be found at:  
[http://qibawiki.rsna.org/images/d/de/QIBA\\_Profile\\_Stages\\_19Jan2013.pdf](http://qibawiki.rsna.org/images/d/de/QIBA_Profile_Stages_19Jan2013.pdf)

Next Steps:

- The latest version of the QIBA DW-MRI Profile and claims to be posted on the QIBA WIKI and circulated to the group.
- Next t-con: Wednesday, February 20, 2013 at 11 am (CST)