

QIBA FDG-PET Biomarker Committee (BC) Call

06 May 2016 at 9 AM CT (GMT-6)

Draft Call Summary

In attendance:

John J. Sunderland, PhD (co-chair)
Scott Wollenweber, PhD (co-chair)
Terry Brown
Edward Eikman, MD
Howard Higley, PhD

Paul Kinahan, PhD
Adrian Lammertsma, PhD
Martin Lodge, PhD
Nancy Obuchowski, PhD
Amy Perkins, PhD

Eric Perlman, MD
Anne Smith, PhD
Mitsuaki Tatsumi, MD
Timothy Turkington, PhD
John Wolodzko, PhD

RSNA

Fiona Miller
Joe Koudelik
Julie Lisiecki

Moderator: Dr. Wollenweber

Updates from the QIBA 2016 Annual Meeting (Alexandria, VA)

- Positive feedback was received regarding project and Profile discussions during the breakout session
Progress was made on Dr. Turkington's checklist
- The group is at a pivotal point – nearly ready to declare the Profile technically confirmed
- User comments from the feasibility testing of the checklist were reviewed
- Only 2 – 3 outstanding compliance questions remain

Items to Resolve for the Profile Checklist

- Specific items regarding direct interpretation of what is being asked of manufacturers (Dr. Perkins)
 - SUV calibration within $\pm 2\%$ at factory
 - CT acquisition parameters within DICOM tags / headers still needed
 - PET/ CT alignment within ± 2 normatives
 - Ideal range for mechanical tolerances
- Dr. Turkington has received feedback from 3 of 4 manufacturers on these points
- Dr. Turkington cautioned that not everyone may be able to meet these high performance specs
- It would be helpful to pinpoint exactly what the alignment and attenuation correction criteria need to be
- The QIBA goal would be to have a model system that performs as it needs to under ideal conditions
- Some concerns regarding the following topics will need further discussion:
 - Oncology standards
 - Reproducibility and PET/CT
 - Measurements for patients and practical implementation procedures
 - Differences between real-world and factory specifications
 - Calibration procedures – i.e., should there be a test that does not exhaust the phantom?
 - Can a manufacturer declare compliance with the QIBA Profile?
 - Will a work-around be available for manufacturers that allow variance from the standard calibration procedure?
 - Dr. Turkington indicated that his preference would be to include a standard procedure that all could achieve, rather than requiring a vendor-specific workaround
 - This topic will be referred to the Process Committee for additional guidance
 - Dr. Perkins to wordsmith some instructions re the 2% calibration specs
- Dr. Turkington to follow up with the vendors
- Additional list of "shalls" for consideration for the Profile Checklist include:
 - Performance specs should be met upon leaving the manufacturer facility
 - Shall be able to align PET and CT images within any direction

MAY WebEx calls

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| • May 13: Amyloid BC | • May 10: Quantitative / Image Analysis – Drs. Miyaoka and Seibyl |
| • May 20: SPECT BC | • May 17: Phantoms / DRO Group – Drs. Dickson and Zimmerman |
| • May 27: Combined NM BCs (TBD) | • May 24: Clinical / Literature Review – Dr. Seibyl |