QIBA Ultrasound Shear Wave Speed (SWS): System Dependencies Subcommittee

Friday, July 20, 2012; 11 AM CT

Draft Call Summary

In attendance			**RSNA**
Mark Palmeri, MD, PhD (Co-Chair)			Fiona Miller
Keith Wear, PhD (Co-Chair)	Brian Garra, MD	Nicolas Rognin, MSc, PhD	Julie Lisiecki
Paul L. Carson, PhD, (QIBA Sci. Coord)	Timothy J. Hall, PhD	Laurent Sandrin, PhD	
Shigao Chen, PhD	Stephen McAleavey, PhD	Daniel C. Sullivan, MD	
Claude Cohen-Bacrie, MS	Andy Milkowski, MS	Ron Tosh, PhD	
David Cosgrove, MD	Kathy Nightingale, PhD	Hua Xie, PhD	

Moderator: Keith Wear, PhD

Comparison of Clinical Protocols to Identify Potential Sources of Variability

- Dr. Wear thanked Dr. Xie for her PowerPoint on staging of liver fibrosis, and the following members for submitting Protocols
  - Mr. Milkowski (Siemens)
  - Mr. Benson (Siemens)
  - Mr. Cohen-Bacrie (Supersonic Imagine)
  - Dr. Sandrin (Echosens, Fibroscan)
- Other systems representatives were encouraged to submit Protocols to Dr. Palmeri (Mark.Palmeri@duke.edu) or Dr. Wear (Keith.Wear@fda.hhs.gov).
- These documents may be posted to the wiki only if they are deemed suitable for public viewing by the submitting members.

PowerPoint Presentation (Mr. Milkowski)

- Brief presentation proposing a method to assess relative importance of system dependence factors with the objective of establishing a set of standards to allow for comparison of SWS across vendors
  - Group to develop a list of system dependency factors that would affect SWS results
  - Need to determine how response will be measured
  - Record high and low levels for each
  - Analysis of variance to be done using orthogonal charting, to help the group identify priorities
  - Goal to focus on aspects within manufacturers control that will allow clinicians to get reproducible results

Overview of *Mendeley* (Dr. Palmeri)

- Dr. Palmeri is currently working with this free reference manager
  - Will invite all members of the group to join
  - All members will have ability to tag, annotate and highlight entries
  - *Mendeley* allows import from and export to other systems
  - Provides citation information and other organizational tools

- Dr. Palmeri has begun to tag system-dependence variants
  - Plans to extract data and identify trends
  - Volunteers needed to assist with tagging
    - Major systems should be represented
- This database will also be available to the other subcommittees for use, and papers will be tagged appropriately to designate subcommittee relevance. We may also consider creating new groups for each subcommittee if the paper volume becomes too large.

Proposal: Manuscript for Scientific Journal (Dr. Wear)

- Title of manuscript: "Challenges for Standardization of Ultrasound Shear Wave Velocity Measurements"
- Draft manuscript could be distributed to interested QIBA US SWS System Dependencies members, on request by email to Dr. Wear (Keith.Wear@fda.hhs.gov), and those who make substantial contributions could serve as co-authors.

Next steps:

- Dr. Hua Xie to continue compilation of references
- Group system representatives to send database entries to Dr. Palmeri mark.palmeri@duke.edu or Dr. Wear Keith.Wear@fda.hhs.gov.
- Volunteers willing to assist with tagging to contact mark.palmeri@duke.edu

Next calls with moderators:

- QIBA US SWS Technical Committee - **Monday, July 30, 2012 at 1:00 PM CT** (Dr. Hall)
- Phantom Subcommittee - **Monday, August 6, 2012 at 1:00 PM CT** (Drs. Hall and Garra)
- System Dependencies Subcommittee - **Friday, August 10, 2012 at 11:00 AM CT** (Dr. Palmeri)
- Clinical Applications & Biological Targets Subcommittee – **Monday, August 13, 2012 at 1:00 PM CT** (Dr. Cosgrove)

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