QIBA Ultrasound Shear Wave Speed (SWS)

Clinical Applications and Biological Targets Subcommittee Call

Friday, 8 August 2014; 11 AM CT **Draft Call Summary**

Julie Lisiecki

Madeleine McCoy

In attendance **RSNA**

David Cosgrove, MD (Co-Chair) Yasuo Miyajima, MS Anthony Samir, MD, MPH (Co-Chair) Nancy Obuchowski, PhD Mark Palmeri, MD, PhD Paul Carson, PhD Nicolas Rognin, MSc, PhD Brian Garra, MD Gilles Guennette, RDMS, RDCS, RVT Vijay Shamdasani, PhD

Michael Wang, PhD, MASc Timothy J. Hall, PhD

Moderator: Anthony Samir, MD, MPH

Discussion points:

- Dr. Samir's study, "A Pilot Study of the Effect of Steatosis and Inflammation on Shear Wave Speed for the Estimation of Liver Fibrosis Stage in Patients with Diffuse Liver Disease," has 198 subjects to date; 50 of which have had pathology reads.
 - The project is on track for timely completion of all deliverables by the end of September 2014.

QIDW Update and RedCap

- IRB approval has been given to MGH for data to be uploaded to QIDW
 - Thousands of images have been acquired and de-identification software is needed to automate the process
- Drs. Samir and Dyhani are using the research registry, "REDCap" to store data from the standardized case report forms in a secure web-based format
 - Members who have signed forms will have access to the database.
 - Members are reminded to sign the EDC user agreement request for REDCap to participate in the clinical study - by Friday, August 29th.
 - REDCap is specifically designed to meet privacy and data requirements for large research institutions.

Data Analysis Requirements

- Version 2 of the draft UPICT protocol for clinical use was distributed to the group's manufacturer members requesting feedback on accurate parameters for best practices
 - Comments are welcome and encouraged: Dhyani.Manish@mgh.harvard.edu.
- Dr. Samir will set up a call with technical personnel (engineers) within the next month or so to work out some of the details regarding how parameters are set up and defined
 - More information is needed regarding resources required for a calibration standard
 - Discussion regarding a metric for processing elasticity and phase velocity would be helpful
 - A standard for calibration would be mutually beneficial to vendors and clinicians alike
 - If there is buy-in to a standardization process, it would pave the way for collaboration on digital datasets and calibrated phantoms for this purpose

Phantom Study, Phase II Update:

- The group plans to proceed with the CIRS phantom, and Technical Committee Co-Chairs will communicate additional details regarding a timeline for measurements in the next week or so. Technical parameters will be included.
- More work needs to be done prior to a large-scale clinical study. There is some concern about temporal stability.

Action items:

- Please respond to the EDC user agreement request for REDCap to participate in the clinical study by Friday, August 29th
- If not yet completed, please respond to Dropbox invitations to join the shared folder for viewing papers

Next QIBA Ultrasound SWS Call Dates - Fridays at 11 am CT:

- Friday, August 15, 2014: US SWS Technical Committee Call Dr. Garra
- Friday, August 22, 2014: Systems/ Phantom SC Dr. Palmeri

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