QIBA Ultrasound Shear Wave Speed (SWS)

Clinical Applications and Biological Targets Subcommittee Call

Monday, 10 September 2012; 1 PM CT Call Summary

In attendance **RSNA** Barry Goldberg, MD Mark Palmeri, MD, PhD Joe Koudelik Claude Cohen-Bacrie, MS, (Co-Chair) Tim J. Hall, PhD Nicolas Rognin, MSc, PhD Julie Lisiecki David Cosgrove, MD, (Co-Chair) Ted Lynch, PhD Daniel C. Sullivan, MD Michael Andre, PhD Andrew Milkowski, MS Clark Zhe Wu, PhD Paul L. Carson, PhD Caterina Gallippi, PhD Kathy Nightingale, PhD

Moderator: Claude Cohen-Bacrie, MS

Discussion

- Dr. Cosgrove provided an update on the EFSUMB Recommendations and Guidelines on the Clinical Use of Elastography
 - o Information has been sorted by importance and availability of references by 25 reviewers
 - This 69-page document is scheduled for publication this year or early 2013
- Next challenge for this subcommittee will be generalizing guidelines across technologies and vendor systems
 - Standardized protocol with recommendations for mitigating system output variation needed
 - o Issues raised regarding values from equipment being comparable
 - Considering use of a conversion chart to mitigate system dependencies
- Group to consider what are the circumstances or conditions under which technologies can be compared
 - o Goal is to understand system differences to enable direct output comparisons without stifling innovation
 - Caution not to restrict vendor processes to achieve the goals of QIBA
- AIUM launched a new effort related to transient use of higher peak pressures to study imaging nodes that can be challenged in patient scenarios
 - Or. Nightingale requested increased output scenarios as well as any thoughts related to this Doppler issue, be forwarded to her. (Kathy.Nightingale@duke.edu)
 - Noted was paucity of documentation in the literature demonstrating image improvement based on increased system output
- Mr. Cohen-Bacrie proposed a template to position confounders and differentiate among clinical, technical, and physical parameters
 - o Identify how to deal with priority confounders: a) bibliography analysis; b) Phantom design; c) clinical protocol; d) comparative studies; etc.
 - o Group referencing biopsy as a possible ground truth

Reference provided by Dr. Carson:

Factors that influence the correlation of acoustic radiation force impulse (ARFI), elastography with liver fibrosis. Simona Bota, Ioan Sporea, Roxana Sirli, Alina Popescu, Mirela Dănilă, Mădălina Sendroiu in *Medical Ultrasonography* (2011)

Upcoming QIBA US SWS Calls

Date	Time (CT)	Day	Committee/ Subcommittee	Moderator
09/24/2012	1:00 pm CT	Monday	Phantom Subcommittee	Dr. Garra
09/28/2012	11:00 am CT	Friday	System Dependencies Subcommittee	Dr. Palmeri
10/01/2012	1:00 pm CT	Monday	Clinical Applications & Biological Targets Subcommittee	Dr. Samir

Conferences:

- International Tissue Elasticity Conference (ITEC 2012): Ultrasound Deaville, France (October 2 5)
 - o Dr. Hall will be giving a brief presentation on QIBA efforts.
- IEEE Ultrasonics Symposium Dresden, Germany (October 7-10)

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