QIBA US Coordinating Committee Update

Annual QIBA Meeting

Wednesday, April 13, 2016
Modality Committee Structure

- **US Coordinating Committee**, Timothy Hall, PhD; Brian Garra, MD
- **US SWS Biomarker Committee**, Timothy Hall, PhD; Brian Garra, MD; Andy Milkowski, MS
  - System Dependencies / Phantom Testing Task Force, Mark Palmeri, MD, PhD; Keith Wear, PhD
  - Anthony Samir, MD, MPH; Claude Cohen-Bacrie, MS; David Cosgrove, MDClinical Applications Task Force,
- **US Volume Blood Flow Biomarker Committee**, Brian Fowlkes, PhD; Oliver Kripfgans, PhD (AIUM supported)
- **Proposed US Contrast Agent Biomarker Committee**, Richard Barr,
  - Analysis software standardization
  - Late phase washout in the liver
  - Funds for a phantom available through FDA-CDRH
  - Current QIBA and AIUM TSC CEUS mailing lists are the same
Current Status: Profile Development

- **Profile(s) in progress:**
  - US Shear Wave Speed for Liver Fibrosis Assessment
  - Profile (v1.0) in final stages prior to release to BC

- **Field / feasibility and/or conformance project(s) in progress:**
  - Plan for conformance based on measurements in a set of phantoms
    - US measurements will be compared to MRE estimates at equivalent frequency (about 180 Hz)
  - Field test for feasibility being planned
    - Searching for probable funding sources
Current Status: Profile Development

• Profile(s) in progress:
  • Volume Blood Flow in Renal Transplant
  • Profile in early drafting stage
  • Field / feasibility and/or conformance project(s) in progress:
    • Phantoms for initial testing have been designed
Current Status: Profile Development

• Profile(s) in progress:
  • Contrast-Enhanced Ultrasound (CEUS)
  • Bracco agent “Lumason” has FDA approval for differentiation of liver tumor in adults and pediatrics
    • Need for standardization
    • CEUS and Volume Blood Flow were ranked equally in the US CC selection process – conceptual approval by QIBA SC
    • A Task Force has been formed and is pursuing formal approval by SC
## Listing of “Round 5” Funded Projects

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<th>YR</th>
<th>Code</th>
<th>Committee</th>
<th>US Projects</th>
<th>Lead</th>
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Example Results from Phantom Study

All US Shear Wave Speed estimates for 3 phantoms at 4.5cm deep
Key Highlights for Discussion

- *Unanticipated problems or challenges?*
  - Nothing new…
- *Process lessons learned for cross-modality consideration?*
  - Both US SWS and MRE BC efforts are challenged by the lack of “ground truth”
- *Opportunities for cross-organization / international engagement?*