Healthcare Technology Foundation (HTF) and ACCE presence looms large at the Boston Fourth Annual Medical Device Connectivity Conference.

The Fourth annual Connectivity Conference was held in the Martin Conference Center at the Harvard Medical School on November 1-2, 2012. Tim Gee, Chairperson of the Conference and Connectologist and Principal, Medical Connectivity Consulting, set the stage with his opening remarks to the two-day event. Three themes were emphasized: 1) the current progress of medical device data streaming into the EMR, 2) the increasing need to manage alarms and technology changes in wireless and software, and 3) how hospitals and manufacturers are facing these challenges. He asked for a robust dialog with the speakers and the audience.

The first speaker, Julian Goldman, MD, the Medical Director of Biomedical Engineering for Partners Healthcare Systems, put the medical device interoperability issue very succinctly: it is a “wicked problem”. The Wikipedia definition of this term served as a theme not only for his talk but also for all of day one. We are facing a problem that is “difficult to solve because of incomplete, contradictory, and changing requirements”. His talk really nailed the current state of the interoperability issue---a wicked problem.

He also discussed the role that CIMIT, Center for Integration of Medicine and Innovative Technology, is trying to play with Interoperability. He hosted a well-received tour and demonstrations at his Center on the previous evening, a tour I missed this year. In past year’s interoperability solutions with various medical devices were demonstrated. The feedback I received from those attending this year was consistent with my view the prior year.

The first talk by a Health Technology Foundation (HTF) board member, and also ACCE member, was later in the morning. William Hyman, ScD, Professor Emeritus Department of Biomedical Engineering, Texas A&M University and Past President of HTF gave an update on Meaningful Use (MU) Stage 2. Dr. Hyman was stuck in New York City due to Hurricane Sandy and presented his talk remotely. He still managed to hold the audience’s attention as he described how the government regulates its defined MU of an EMR. Of particular interest was the discussion of the possible or actual impact on medical device connectivity.

Carol Davis-Smith, an ACCE member, then summarized the AAMI/FDA Interoperability Summit that occurred on October 2-3, 2012. The summit covered the issues surrounding interoperability, the integration of medical devices, with a focus on patient safety. Much like the goals of this conference, AAMI and the FDA co-convened their meeting to improve device integration and enhance patient safety.

Ms. Davis-Smith’s presentation can best be summed up by a quote from Mary Logan, President of AAMI, in AAMI News (October 2012/Volume 47/No. 10) “Interoperability is a huge space still under development”.

The afternoon of day one also included topics such as clinical device data validation, cyber security issues, general and patient monitoring connectivity and transition. The day one Program wrapped up with a talk on medical grade wireless requirements and then a panel discussion on the wireless spectrum.

The morning of day two of the Connectivity Conference had two tracks: one for healthcare providers and one for manufactures. It is perhaps ironic that these two groups were segregated since connectivity success depends on mutual support. At the healthcare provider track two HTF board and ACCE members gave well-received presentations. Ted Cohen, Director of CE at UC Davis, spoke about the expanding role of computerized maintenance management systems to include medical device –IT system-level documentation. Then, later that morning, Jennifer Jackson, Director of CE & Device Integration at Cedars-Sinai, described medical device integration at a large medical center. Through a first hand account of her career progression, Ms. Jackson described her professional evolution and the corresponding evolution of medical device system integration at Cedars-Sinai.

The morning also had well received topics on Wireless Issues presented by Alan Lipshultz, Clinical Engineering –IT convergence by Robert Rinck, a Clinical Documentation case study presented by Mark Herder and Connectivity Lessons learned by Paul Frisch.

Day two’s topics and presentations proved very valuable “cook book” experiences to the audience. However it may the kind of cookbook where the recipes aren’t readily replicated in every kitchen. “You have seen one Hospital, you have seen one Hospital”.

Judging by the questions and the interactions during the sessions and the breaks we, as a Clinical Engineering professionals, have much work to do to ensure accurate, safe and sustainable medical device integration. Conferences like this one, with the necessary drive and resources, will give us the tools to succeed.

During both days an exhibit area enabled the attendees to speak with connectivity and wireless vendors and sponsors of the conference. Laird Technologies, Frost and Sullivan and Medical Connectivity Consulting were noted in the conference brochure for the support.

The Conference ended with a two optional workshops. Workshop one was “Design Techniques to Build Safety-Critical Backend as a Service Cloud Solutions”. Session two was “Medical Device Wireless Enablement”.

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Henry Stankiewicz, Jr. MSBME, CCE
Vice President HTF