ACCE News

Newsletter of the American College of Clinical Engineering

May—June 2013 Volume 23 Issue 3

Check out photos of ACCE at AAMI 2013

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In this Issue:

President's Message:

Our Place and Our Time

I opened the traditional ACCE members meeting and awards reception during this year's AAMI conference by proclaiming it is "our place and our time". I was stealing a line from a recent HIMSS conference. But it's one that I believe applies so well to our profession.

Most of you have heard about how CNN Money has projected that clinical engineer will be the second fastest growing job in America over the next ten years. Hospitals are taking on more and more complex and impactful technologies and technology-related projects. In some cases these are driven by government incentives like meaningful use and other cases by accreditation-related initiatives like the probable 2014 Joint Commission National Patient Safety Goal for clinical alarms. These efforts will need strong technical expertise, deep knowledge of the clinical environment, practical and systems-based thinking, and technology directed leadership in order to succeed. These are all in the clinical engineering sweet spot. Opportunity is knocking loudly on our door and it's our time to "seize the day"!

Some of you have heard me talk about my high school wrestling days in which I was named the unsung hero during my senior year. I think I won the award because I kind of quietly plugged along and would occasionally pull out a win when it wasn't expected. I was an important member of my team but not a leader or a "most valuable player". They were the ones who were expected to win, and on my team did so consistently and with authority.

Biomedical and clinical engineering professionals are often considered to be unsung heroes in their hospitals. We're known for coming through in the clutch, often quietly, and solving important technology-related problems. But we're not typically thought of as being among the hospitals' leadership or "most valuable players", even when it comes to technology concerns. Those roles are typically reserved for physicians, nurses, and executives like the CIO. In order to take advantage of our many opportunities, and quite frankly for the projected growth rates for our profession to come true, that needs to change. Clinical engineering needs to shift from having an unsung hero mindset to that of the most valuable player or leader. Fortunately, the presentations at this year's AAMI conference were filled with examples of how biomedical and clinical engineering professionals can take on or are already taking on technology-related leadership roles. Many of those presentations were provided by ACCE members. In fact, 38 of the presentations given during this year's AAMI conference were by ACCE members.

AAMI Conference Highlights

This year's AAMI conference started off with a great and very well attended clinical engineering symposium. Jim Welch from Sotera Wireless spoke about the innovative and disruptive technologies we must be prepared to deal with and guide our hospitals to adopt. George Panagiotopoulos from Kaiser Permanente addressed the challenges and professional development opportunities for clinical engineers with mobile health technology innovations. I talked about the patient safety lessons we can

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President's Message

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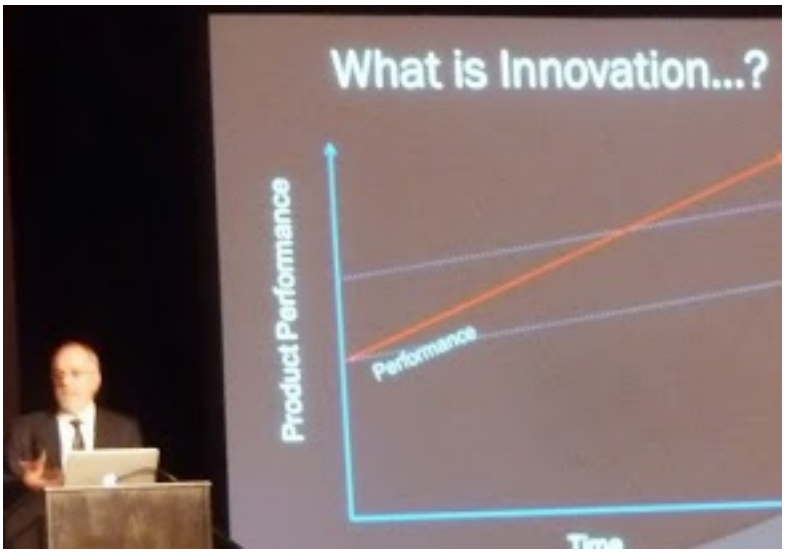
learn from innovative and disruptive technologies from the past. I was followed by Axel Wirth from Symantec who spoke about how yesterday's cyber security mindset gets in the way of securing tomorrow's critical infrastructure. ACCE Past President Jennifer Jackson rounded out the symposium with an impressive overview of her forward thinking clinical engineering program at Cedars Sinai Medical Center and how it is being positioned to lead her institution's adoption of innovative and disruptive technologies. One amazing example included her department's deployment of over 1,000 smart phones for use by clinical staff. I'd like to thank Ilir Kullolli, ACCE Vice President, and his education committee for doing an excellent job putting together the symposium.

One of the highlights of this year's conference for me was the annual membership meeting and awards reception. Over 150 ACCE members, potential members, guests, sponsors, and award winners attended. It was one of the most spirited and upbeat receptions that I can remember. One could sense the excitement over the many opportunities that members of our profession see before them. We began with a brief message from me (ACCE President), AAMI President, Mary Logan, and then heard commentary from our sponsors. Our sponsors included Sotera Wireless, Awarepoint, Four Rivers, Phoenix Data Systems, and Symantec. Thank you very much for your generous support of ACCE. The program was rounded out with reports from our Education, International, and Advocacy committee chairs and presentation of the Advocacy Awards.

Our most prestigious award, for lifetime achievement, went to Past President Ray Zambuto. Ray shared an inspirational message about the good works of ACCE and its members over his years of service to ACCE. His message seemed to have quite an effect. We heard from several members after the awards presentations who offered to volunteer their services for ACCE activities. And other attendees expressed interest in becoming members of ACCE. Thanks for your good words and good works Ray. Your award was very well deserved!

Preparing for Next Year – Alarm Safety

As I mentioned earlier, the Joint Commission is likely to soon announce a 2014 National Patient Safety Goal on Alarm Management for 2014. A draft of the Goal can be found at the Joint Commission website along with a Sentinel Event Alert on medical device alarm safety in hospitals. The Sentinel Event Alert covers many of the issues likely to be addressed in the goal. George Mills from the Joint Commission provided his perspectives on alarm safety and likely requirements in the goal during the AAMI conference. He spent quite a bit of time talking about a likely requirement for hospitals to inventory medical devices with clinical alarms and to inventory the alarm settings on those devices. This is one of the many aspects of the likely Goal and the Sentinel Event Alert that clinical engineering should be taking the lead on.



Jim Welch: Speaking at the ACCE Symposium on "Innovative and Disruptive Medical Device Technologies: What we can learn from steam shovels, automobiles and cell phones?"

It's time for the clinical engineering community to get prepared. Study the Sentinel Event Alert and proposed Goal. Review the many materials on alarm safety referenced in the Sentinel Event Alert, including those from AAMI and ECRI Institute. If you are not on your alarm safety committee, join. If you are on the committee, take on a leadership role. And if your hospital doesn't have an alarm safety committee, create one – with support from your hospital's nursing and physician leadership. Check your inventory of medical devices. Does it include those with clinical alarms? If not, get them on your list. Then look inside your devices. What alarms do they have and how are they set? The Joint Commission will want to know and it's clinical engineering's responsibility to get it done. It's a lot of work but it's our job and one of our biggest chances shine.

Clinical Engineering Around the World

I finished off my last ACCE News President's report noting that I would be traveling to Italy to present at the Association of Italian Clinical Engineer's annual meeting in Naples Italy on April 11, 2013. What a great experience. The theme of the conference was Medical Devices and Information Technology. Sound familiar? I was asked to represent ACCE and ECRI Institute as the conference opening keynote speaker and present on the convergence of medical devices and information systems from the US perspective. It was a well-attended program with many of the same topics covered during the AAMI and HIMSS conference here in the US. The Italians

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Clinical Engineering Education Task Force to Expand Number of CEs

The ACCE Board of directors has initiated an effort to assist educators in developing clinical engineering educational programs and internship opportunities. At their meeting on June 1 the ACCE Board of Directors approved a task force to create a white paper and guidance document to assist universities and colleges with engineering, and in particular biomedical engineering, programs to educate young people in the field of clinical engineering. The document will make recommendations on program structure and provide an outline for clinical engineering education at the undergraduate level. The goal would be to educate and orient young engineers on what is involved in clinical engineering. The document will also assist with program development at the graduate level where BME graduate students could focus on clinical engineering. The recommendations will be based on the clinical engineering body of knowledge (BOK) as established by ACCE in their triennial survey. The task force will also propose course work based on the experience gained during the 37 years of clinical engineering graduate education at the Hartford Graduate Center and the University of Connecticut. The white paper will cover the structure and benefits of internships as part of the educational process.

The task force will be led by Frank Painter and include Elliot Sloane, Tobey Clark, Colleen Ward, Barbara Christie and Mario Castaneda. Other volunteers are being sought.

Frank Painter, Adjunct Professor, UConn

frpainter@earthlink.net

Note: Thanks to University of Vermont's Tobey Clark and Daniela Gonzalez for creating a list of BME and BMET educational programs: http://accenet.org/downloads/reference/US_BME_BMET_Programs_2013.pdf

To update this list contact:

Tobey.Clark@ITS.UVM.EDU

ACCE News

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To subscribe e-mail Secretariat@accenet.org

Managing Editor
Jim Keller
jkeller@ecri.org
(610)825-6000

Co-Editors
Ted Cohen
tedcohen@pacbell.net
Jared Ruckman
Jared.ruckman@live.com

Circulation & Address Corrections
Suly Chi, ACCE Secretariat
Secretariat@accenet.org

Advertising
Dave Smith
advertising@accenet.org

From the Editor's Desk: AAMI Conference Musings

With my son's graduate school graduation, my daughter and one year old granddaughter visiting, a Joint Commission Survey and an AFSCME union strike -- including the BMETs in my department -- I was very busy in May and did not have much time to do preparation for the AAMI conference. Fortunately, and unusually, I did not have any formal presentations to give at this year's conference. So, a day prior to departing for the conference I informally discussed with a few of my staff what they thought I should look for or try to get information on at the conference. Besides the ever-present Healthcare IT topics, a few other comments were about flat panel displays and their very high cost, low reliability, cleaning problems and susceptibility to damage. Since I also do a little consulting work and teaching, in addition to my UC Davis Health System Clinical Engineering manager job, I also knew I was going to spend some AAMI time on Benchmarking and BMET Education. Of course, thanks to the Joint Commission, alarm management is also a renewed hot topic. I was also recently in a mobile health (mHealth) focus group which made me think that might get included on my list. Whew, that's a lot, and as it turned out, much more than I actually could hear, learn, and absorb.

So, with the above topics in mind, here's a rundown of some of what I heard presented, discussed, argued in a few cases, touched at the vendor exhibits, or otherwise learned something about.

Volumes can be written about CE/IT and medical device integration and it certainly seemed to dominate AAMI 2013. Here are a few tidbits on some specific IT-related topics from the conference and elsewhere. From an IT security perspective, one recommendation is "do no harm" in the context of "don't lose your unencrypted laptop or USB drive if it contains ePHI." Second, don't store ePHI on your computer "tools" if you can avoid it. Third, make sure you are using anti-malware programs and scanning your computer "tools". The next big areas for security work are in wireless and security improvements to login authentication, authorization and audit.

Another IT-related issue is patch management. According to Axel Wirth of Symantec, speaking at a session on IT security in medical devices, when Microsoft, or another software company, issues a software patch it may take the medical device manufacturer anywhere from 2 weeks to 4 years to validate the patch. When the patch is finally validated most manufacturers post the patch on their website and/or notify their own internal staff that the patch is available. I have observed that when the patch is validated, there often is no direct communication to customers. It is not practical for Clinical Engineering departments to weekly monitor the status of each not-yet-validated patch when it may take months to years to validate. One idea I had is to treat validated patches like product recalls and alerts. Clinical Engineering departments often subscribe to services (e.g. ECRI Institute's Health Devices Alerts and Alerts Tracker programs) that issue weekly lists of product recalls and alerts and provide an on-line means to track those. If medical device vendors were to notify ECRI Institute, or other alert/recall trackers, and tell them when a patch has been validated, this would allow hospitals to track the patch status and know when the patch can be safely installed. This process would also be good for manufacturers who, once validated, want their patches to be installed in a timely manner in order to protect their equipment. I have discussed this with ECRI Institute staff and they are seriously looking into it.

Several AAMI IT presentations mentioned the need for a formal change management process. At our hospital we recently had an incident where a vendor, as preparation for an upcoming phase of a multi-phase project, remotely accessed a live telemetry system and made some changes. The system included both fixed wired beds and telemetry beds and the configuration changes made it so the fixed wired beds no longer communicated with the central station. The change occurred late afternoon and the end users did not notice the change and did not notify Clinical Engineering immediately (telemetry still worked). The result was an off-hours emergency call to Clinical Engineering staff at about midnight. Fortunately, the BMET who was called was able to contact the vendor and solve the problem after a few hours of investigation. No change management process was in use and we subsequently fixed that quickly with this vendor. Clinical engineers and BMETS no longer completely control all these critical systems and a change management process that includes IT, Clinical Engineering, and vendors where appropriate, is critical to assure there is communication of the timing and nature of the change and an appropriate post-change test plan.

AAMI released its new benchmarking platform for HTM at AAMI 2013 and there are several changes in it. One of the changes allows the capture of the hours spent on a variety of Clinical Engineering tasks, such as strategic planning, technology assessment, pre-purchase evaluations and other projects. It will be very interesting to see if these new survey fields are used and then, we will be able to start better documenting several of the "value added" services that many Clinical Engineering departments perform above and beyond equipment repair and maintenance services. In my own department, starting July 1st our staff clinical engineers will be logging their project and pre-purchase evaluation hours in our CMMS.

We spend an extraordinary amount of money replacing flat panel displays. The number, and costs, of these have skyrocketed. I have heard that there are now specialty large flat panel displays in Interventional Radiology and Cath Labs that cost more than $50,000 each. Perhaps the medical imaging vendors should start including these displays in their "glassware" contracts. Several third-party vendors showed their flat panel displays at AAMI, but the newest and most expensive displays are not available yet on the third-party market. Support issues range from how to clean displays adequately so they meet infection prevention guidelines and the cleaning process does not deteriorate the coatings, "crash" damage, protective covers that don't distort the image, image latency issues and wear-out. This is an

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Editor: AAMI Conference continued

area that needs further work as we strive to reduce repair and maintenance costs.

CE leadership: For the past 29 years, ACCE member Manny Furst has coordinated a pre-AAMI meeting of the leaders of our field. A few tidbits from that meeting: More and more CE depts. are reporting to IT. IT support costs are 20-30% of acquisition cost (COSR) as compared to a typical COSR of 5% for medical equipment. With the high support costs, and the shorter expected life span of most IT equipment, the overall technology costs in healthcare are increasing a lot. There are some concerns that the IT expenses are taking money away from more "traditional" medical device purchases. Both at Manny's meeting and the IHE (Integrating the HealthCare Environment) booth there were discussions on Clinical Engineering integration, or how can we use all the medical device connectivity to better service and support equipment. Through the IHE PCD MEM (Patient Care Devices, Medical Equipment Management group) efforts are underway to send out device status, device location (via RTLS), battery status, software revision level, IP and MAC addresses, serial number, error codes and other parameters so that we can measure utilization, know in advance when a battery needs to be replaced and provide true **preventive** maintenance on a just-in-time basis. Other topics presented or discussed on Friday included the need for a national database of PM findings (sometimes called yield) by device manufacturer and model. This would require some standardization of CMMS coding, and then would allow Clinical Engineering departments to better analyze PM intervals and procedures for many more device models, not precluding regulatory issues.

The AAMI Education Committee just issued a report on BMET core competencies. This report can be used by BMET educational programs to make sure that they are covering the top topics included in the AAMI report (Biomedical Equipment Technology, Electronics, Information Technology, Anatomy and Physiology, Math, Physics, Chemistry, English, Other Professional skills, and Practical experience via labs and internships) and the several hundred sub-topics listed. An independent, but topic-related, report from the Professional Testing Corporation (PTC) and the International Certification Commission entitled 2012 (BMET) Role Delineation Study, surveyed BMETs on their job duties. 208 individuals completed the survey. The survey results were compared to the current BMET certification exam (CBET) and can be used to update the exam. The survey results can also be used to recommend major topics that should be included in a core BMET curriculum.

Not on my initial list but interesting were presentations in the human factors sessions regarding device design. With regard to displaying information, one of the presenters used the acronym, "CRAP", as a good display design criterion (Contrast, Repetition, Alignment, Proximity). As we often see in incident investigations, she also stated that "common sense is not so common".

With regard to mHealth, one colleague showed me an ECG monitor that is an add-on to an iPhone. See http:// www.alivecor.com for more information on this FDA-approved, iPhone-based medical device.

There certainly was much more at AAMI that I saw, and I'm sure, much that I did not see.

On my drive home I passed a billboard from an insurance company that read: "Someone is alive today who will live to be 150 years old". Obviously, I don't know if that is true, but I started to wonder if any of the technologies and solutions presented at AAMI would help someone to live that much longer (the seven hour drive keeps making the mind wander). Genetics, and perhaps treatments tailored to genetics, infection prevention and treatment, and lifestyle issues (e.g. nutrition, obesity, environmental pollution, exercise, smoking, alcohol) would seem to have a bigger population health impact than any of the other topics discussed above. Who knows? I'm getting outside of the realm of Clinical Engineering here, so I'll say goodbye for now.

I hope you enjoy the ACCE Newsletter and hope to see you next year at AAMI 2014 in Philadelphia.

Ted Cohen, Co-Editor ACCE News

tedcohen@pacbell.net

2013 AAMI/ACCE Robert Morris award recipient Ed Myers and past years Bob Morris award winners (l to r) Brad Carrott, Robert Padgett and Tom Judd

Alarm Management Update

Addressing alarm fatigue will gain front and center attention at the hospital executive level this summer when The Joint Commission publishes a new National Patient Safety Goal focused on alarm management. The proposed Goal includes the following elements:

1. Leaders establish alarm safety as a hospital priority.

2. Prepare an annual inventory of alarms used in the hospital and identify the default alarm settings.

3. Based on the annual inventory, identify the most important alarms to manage.

4. Establish policies and procedures for managing the alarms identified in 3 above that at a minimum address the following: Whether specific alarms are needed or unnecessarily contribute to safety concerns; When alarms can be disabled; When alarm parameters can be changed; Who in the organization has the authority to make decisions about disabling alarms and changing alarm parameters; Monitoring and responding to alarms; and - Checking individual alarms for accurate settings, proper operation, and detectability.

5. Educate staff about alarm policies and procedures.

Jim Welch, ACCE board member spoke at several sessions including the ACCE Symposium, ACCE membership meeting (above) and a breakfast session sponsored by Sotera Wireless.

Comments were submitted to The Joint Commission by AAMI's Alarm Safety Committee and ECRI Institute both of which have ACCE representatives. The final Goal is likely to retain the same elements since most of the comments involved clarity and strengthen responsibilities at the hospital executive level.

Unlike the previous Joint Commission alarm management initiative which focused primarily on ensuring alarm audio volumes were set at appropriate levels, the new Goal is expected to reduce nuisance alarms so life-critical alarms are not drowned out in a cacophony of unnecessary sounds. Solving this vexing problem will take both clinical and technical leadership.

Alarm fatigue occurs when too many nuisance alarms result in clinical staff desensitization to true clinically actionable events. Nuisance alarms can be separated into the following classes;

False Alarms: Alarms that are due to bad data, often caused by poor sensor placement, bad patient cables/connectors, or motion artifact

True Non-Actionable Alarms: Alarms that are legitimate threshold crossing events but of short duration and do not require immediate bedside intervention

Technical Alerts: Alarms that warn of a compromise in the ability of a device to make a measurement (e.g., Leads off), or a work-flow aide that is reminder that an activity is pending (e.g., Low battery).

Clinical Engineering Departments will play an important role in achieving this goal. Element 2 of the proposed goal requires an inventory of ALL devices with alarm capability. Current technology management programs will need to be extended to include alarm settings and testing to confirm these settings are appropriate. The remaining elements require a cross functional team. The cross functional team should consist of stakeholders from all communities of users as well as risk management and hospital administration. An Alarms Management Committee is recommended.

Recommendation to Reduce False Alarms

Reducing nuisance false alarms is a matter of optimizing the available technology. Medical device algorithms assume the signal acquisition chain is robust. Low quality sensors, poor placement, bad or intermittent patient cables all contribute to false alarms.

Recommendations: Add patient cable and connector inspections to the next annual inspection. Test all connectors for intermit-

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Alarms continued

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tent or noise on the signal path. Upgrade device software to take advantage of performance improvements. Consult equipment suppliers for routine replacement of patient cables. Review the quality of electrodes and single patient use sensors. Consider a policy for routine replacement of ECG sensors every 24 hrs.

Recommendations to Reduce Nuisance True Alarms and Technical Alerts

Reducing nuisance alarms beyond eliminating false alarms requires a cross functional team approach. The vast majority of alarms occurring in acute care settings do not require the immediate attention by the clinical staff. Nuisance alarms are primarily an audio phenomenon. Separating the alarm visual signal from the audio signal for less critical alarms is one way to reduce audio nuisance alarm. Further, adding audio delays can dramatically reduce nuisance alarm so only persistent alarms annunciate an audio signal. Many medical devices provide customization of alarm configurations. If your medical device alarms are set to factory default, you probably have opportunities to reduce nuisance alarms by making adjustments from the default settings.

Changing alarm configurations requires inputs from end users. Current alarm policies should be reviewed with a focus on reducing nuisance alarms. Changing current settings requires a risk assessment to ensure true-actionable alarms are annunciated while all non-actionable alarms are suppressed. Alarm sensitivity is primarily determined by threshold alarm crossings. Alarm specificity is primarily governed by alarm delays. Adding 5-15 seconds of alarm delay to physiologic settings can significantly reduce nuisance alarms.

Alarm configuration settings can be optimized by gradual iteration or by using an evidence-based method whereby previously collected high-resolution data is processed against "what-if" alarm configurations. Most medical devices store high-resolution data. Tools are becoming available to extract this data for off-line analysis. These tools will help hospitals set data driven policies for alarm settings.

Clinical Engineers are encouraged to engage early in meeting new NPSG for alarm management. Alarm Hazard has been a #1 or #2 patient safety hazard named by ECRI Institute for the past 4 years. Every year there are more reported incidents of patient harm due to alarm fatigue. ACCE, ECRI Institute and AAMI are resources for the clinical/biomedical engineer to learn more about this subject. There were also several sessions in the June 2013 AAMI Annual Meeting devoted to alarm management.

Jim Welch, ACCE Board member

james.welch@soterawireless.com

View from the Penalty Box: Alarms and More

One of the benefits of living here in New England is that you never get bored with the weather. We had a few days of great weather followed by 3 feet of snow, followed 5 days later by temperatures in the 90's and then after a few days of rain a return of nice weather. We may have some wide swings in the weather but not as dangerous as the tornados in the midlands, or the heat and fires of the west or the flooding again in the midlands, drought in the southwest and probably hurricanes in Florida and up the east coast. The weather is like our profession, always changing, never boring and very frustrating, at times, as too many things are happening that we have no control over or input into solving the problems.

Now that I am retired I get to read over 100 newsletters per week, from all aspects of the healthcare field. It is interesting to note that many groups do not seem to understand that they are part of the healthcare market, not just a part of their market, but the total field. To try to make clear what I am saying two recent publications were about the 10 biggest problems with devices and or software used by the devices while the other one covered a list of the 5 biggest problems with the manufacturing of medical devices. No problem appeared on both lists which points to a problem where the users and the manufacturers are not talking about what is wrong with devices from a clinical point that possibly could be corrected on the design/ manufacturing process. There needs to be open and frequent exchanges of ideas, for new devices or software, comments on present problems and what needs to be done to better serve the patients.

A March 1967 article in Modern Hospital titled, "Monitors that saves lives can also kill", by Paul Stanly, talked about monitors and alarm problems and 46 years later the problems still have not been solved. But an article, in that great technical magazine, Ladies Home Journal, in March of 1971, by Ralph Nader stated that 10,000 people are killed by medical devices in hospitals via electrocution. Billions of dollars and man-hours have been spent since that time on electrical safety solving a problem that did not exist, but little has been done on solving the monitoring alarm problem. The question we need to answer is why there still is a problem with monitors?

Part of the problem could be with the Medical Device Act of 1976 and how it allows products to come onto the market, specifically the 510(k) "substantially equivalent" provision of the law. This provision allows the sale of products that are judged by the FDA to be similar to existing products on the market. From the late 1960's to the early 1980's there were two popular designs for the heart rate detection. The most common was the level detection where if a portion of the waveform was above a certain level it was counted as a heartbeat. Unfortunately double and triple counts were very possible and pacer spikes also contributed to the problem. The other system was called slew rate where the rise time, slope, height and width were all measured and noise, pacer spikes and patient movements did not get counted as heart rate. The company that used the slew rate system was small and did not push to be sure that their system would be used as the standard. That company, Electrodyne, disappeared in the 1980's. So the most common design became the de-facto standard for all entering this market to follow even with all of its problems. It is not my intent to put the blame on the FDA for the monitoring problem as it should be on us, the clinical engineers, for not writing better specification for our purchases and testing the devices before the purchase order is cut. We do not seem to be able to prevent problem designs from coming into the healthcare field, however, we do react to those problems well. We just need to think of ways that we can prevent more problems and share that information with everyone.

Maybe it is age but not having a Stanley Cup winner until mid-June is pushing the comfort zone. It seems that all sports run too long with baseball touching November, football into February, basketball and hockey now into June, plus they all seem to start earlier. It is getting as bad as our political system that always seems to be in an election cycle and has no time to perform the tasks that our political leaders were elected to do.

In closing, be ready for the new 2014 alarm management requirements from the Joint Commission.

Have a great summer!

Dave Harrington

dave@sbttech.com

President
continued

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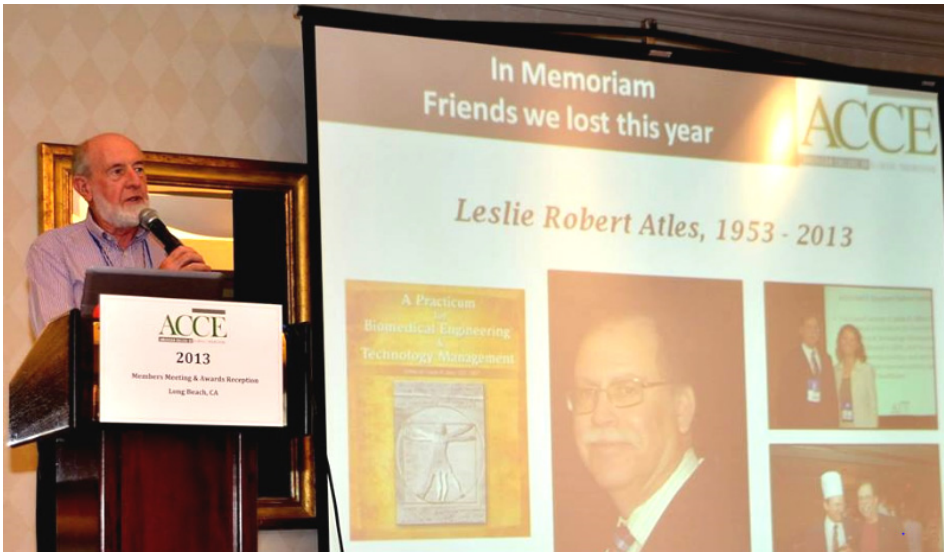
were wonderful hosts. One evening all attendees were bussed to a museum called Museo Diocesano where we were treated to a "living tableau" presentation of Caravaggio paintings. It's something that I had never experienced before. Actors dressed on stage into the costumes of the characters in Caravaggio's paintings. They then slowly and deliberately walked to the front of a stage and literally fell into the poses in the paintings. It was amazing. If you'd like to learn more you can check out the performers' website at www.malatheatre.com.

Best wishes for a great summer. Keep an eye out for updates from ACCE over the next few weeks, including information on our upcoming Board elections. Also, in case you missed our recent Virtual Membership meeting you can check out the recording on our website. We'll be hosting another virtual meeting in October 2013. Please let me know if you have any suggestions on topics you think we should cover. I can be reached at president@accenet.org.

Jim Keller, President ACCE

ACCE at AAMI

Jennifer Jackson, Past President



Malcolm Ridgeway pays tribute to Les Atles at the ACCE reception and membership meeting. Several ACCE and AAMI events were in memory of Les, who died in 2013. Les, a long-time clinical engineer and author, was most recently a clinical engineer for the VA in West Los Angeles and will be missed by all.

Jim Keller ACCE President, give awards to the following people (l to r) Barbara Majshrowski, ACCE/HTF Marv Shepherd Patient Safety award; Ray Zambuto, Lifetime Achievement award; and Arif Subhan, Professional Achievement in Management.

Avanish Konkani, Student paper award; and Paul Kelley, Professional Achievement in Management

The ACCE booth in the exhibit hall was a popular meeting place at AAMI 2013.
Front row, left to right: Alan Lipschultz, Ted Cohen, Ray Zambuto,. Back row, left to right: Suly Chi, Shashi Avadhani, Jennifer Ott, Kevin Ferguson, Binseng Wang, Jon Blasingame

ACCE Member-Presenters at AAMI2013

AAMI 2013 – Educational Session Title	ACCE members – speakers/co-speakers
Clinical Engineering Symposium: Innovative and Disruptive Technologies—Positioning Clinical Engineers for Success in the Face of New Challenges *(presented by ACCE)*	**Ilir Kullolli**, MS, *Kaiser Permanente* (Moderator) **Jennifer Jackson**, MBA, CCE, *Cedars-Sinai Health System* **Jim Keller**, MS, *ECRI Institute* **George Panagiotopoulos**, *Kaiser Permanente* **James Welch**, CCE, *Sotera Wireless* **Axel Wirth**, CPHIMS, CISSP, *Symantec Corporation*
Technology Management Symposium: Balancing the Demands of Your Job with Preparation for Your Future—Are You Looking Ahead?	**Don Armstrong**, CBET, *GE Healthcare* **Carol Davis-Smith**, CCE, *Kaiser Foundation Health Plan* **David Francoeur**, CBET, *CREST Services* **Michael W. Lane**, *University of Vermont*
BMET Evaluation & Review Course	**Arif Subhan**, CCE, FACCE, *VA Greater Los Angeles Health Care System*
Managing Medical Equipment via Integrated Systems	**Paul Frisch**, PhD, *Memorial Sloan-Kettering Cancer Center*
Building a Strategy to Support Medical Device Integration and Alarm Management (Part I)	**Izabella Gieras**, MS, MBA, CCE, *Huntington Hospital*
What is Interoperability...Really?	**John Rhoads**, *Phiips Electronics North America*
You've Decided to Bring Imaging Service In-House: Where Do You Start?	**Patrick Lynch**, CCE, CBET, HIT Pro-PW, CPHIMS, *GMI – Global Medical Imaging*
Technology Managers' Public Forum: The Ultimate HTM Department	**Jim Keller, MS**, *ECRI Institute*
Strategic Management of Sterilization Equipment: HTM's Role in Transforming 21st Century Sterile Processing	**Jennifer DeFrancesco**, *Richmond Veterans Affairs Medical Center*
IT and Cybersecurity Challenges in a Medical Device World	**John Rhoads**, PhD, *Philips Healthcare* **Axel Wirth**, *Symantec Corporation*
Clinical Alarm Fatigue: Recognizing and Mitigating Risk to Patient Care	**Thomas Bauld**, PhD, CCE, *Department of Veterans Affairs, National Center for Patient Safety* **Elena Simoncini**, *Veterans Administration Boston Healthcare System*
Learning from Others: What Healthcare Technology Management Can Learn from Other Industries Regarding Alarm Management and More	**Erin Sparnon**, MEng, *ECRI Institute*
The Best of *BI&T*: Service Manuals and the Supportability of Healthcare Technology	**Elliot Sloane**, PhD, CCE, *Center for Healthcare Information Research and Policy* (Moderator)
Breakfast Symposium: Optimizing Alarm Management on the General Care Floor— A Panel Discussion *(Presented by Sotera Wireless)*	**James Welch**, CCE, *Sotera Wireless, Inc.*
Understanding the FDA's Medical Device Surveillance System	**Alan Lipschultz**, CCE, PE, CSP, *HealthCare Technology Consulting, LLC*
Laying the Groundwork for Integrated Infusion Pumps	**Jennifer Jackson**, *Cedars Sinai Medical Center* **Erin Sparnon**, MEng, *ECRI Institute*
Evaluating the Impact of the New FDA Unique Device Identifier (UDI) Rule	**Jonathan Gaev**, MSE, HEM, CCE, *ECRI Institute* **Jim Keller**, MS, *ECRI Institute*
Roundtable Discussion on Alarm System Management	**Tobey Clark**, CCE, *University of Vermont* **Thomas Bauld**, PhD, CCE, U.S. *Department of Veterans Affairs* **Izabella Gieras**, MS, MBA, CCE, *Huntington Memorial Hospital*
The Technical Iconoclast 2013	**Paul Sherman**, CCE, *Sherman Engineering* and *ACCE* **Dustin Telford**, CBET, CRES, CLES, *Intermountain Healthcare*
Incident Investigation 101: The Essential Role of Healthcare Technology Management	**Kevin Ferguson**, *Cincinnati Children's Hospital Medical Center*
Benchmarking Success Stories: Using Data to Improve Performance	**Jonathan Gaev**, MSE, HEM, CCE, *ECRI Institute* **Frank Painter**, MS, CCE, *University of Connecticut*
How to Deploy a Successful mHealth System	**Bridget Moorman**, CCE, *BMoorman Consulting, LLC*

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Perspectives from ECRI Institute:

AAMI Conference and User Experience Reporting

The AAMI Conference and Expo held in Long Beach, CA from June 1 to 3, 2013 drew a diverse cross section of the Clinical Engineering community. Technology professionals from hospitals and health systems were joined by their counterparts from the manufacturing and service sectors in the presentation of educational sessions and other knowledge transfer activities.

At the ECRI Institute booth, we visited with members whose titles ranged from those most commonly encountered at AAMI meetings in the past (Certified Biomedical Engineering Technician, Clinical Engineering Manager, and Corporate Director of Biomedical Engineering) to those titles representing the increasing demand for the combination of in-depth technical knowledge with business and management expertise (Clinical Engineering Project Manager, Manager of Capital Assets, Technology Manager; and even CEO).

It was interesting to see this broad range of professionals asking ECRI for help with the same issues. Can you help me obtain reliable information about the technologies I currently manage and the technologies under consideration by my organization? Can you help me keep medical technology information organized and accessible?

ECRI has long focused on the aggregation, refinement, and organization of medical technology performance and safety information. We spend a lot of time researching problems and controversies and devote entire departments to organizing this information.

And where does some of our most reliable information come from? It originates with the ECRI member community and particularly with Clinical Engineers and other types of Technology Managers.

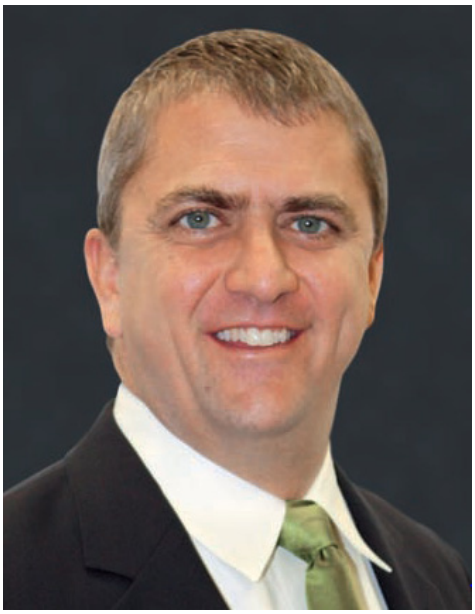
The contribution of reliable technology information by this member community is reflected in the impact of ECRI's Problem Reporting Network in recent months. In the past year, 5 ECRI Hazard Reports have led to voluntary recalls and field corrections of the devices and systems that were the subjects of the reports. The problems ranged from the stability of a bariatric bed to gas embolism risk resulting from tubing misconnections. These Hazard Reports all were prompted by reports from concerned members or ECRI accident investigations commissioned by member hospitals.

One result of such information sharing by technology managers is that manufacturers have improved their products and communicated with their customers about both the problems and related product improvements. The other result is that members of our community received notification of these safety hazards well in advance of the manufacturer recalls: a minimum of 7 weeks, an average of 20 weeks, and as much as 46 weeks. The collective knowledge and experience of the health technology professional community is powerful in its effect on the marketplace and valuable in ensuring that everyone is informed of safety hazards as soon as possible.

A new opportunity to share technology knowledge was also introduced during the first week of June when ECRI announced its new User Experience Network survey program that gathers member intelligence on medical technologies in categories including Ease of Use, Functionality, Reliability, Performance, Safety, Patient Throughput, Quality/Value of Service, Service Response Time, User Training, and Overall Vendor Support.

In the first User Experience Network survey on CT Scanners, more than 300 respondents rated 17 models of CT scanners in these categories. The results were largely positive and surprisingly close among all 4 vendors – GE, Philips, Siemens, and Toshiba, but the price of individual systems varied widely. In one scenario, a health technology manger might more confidently recommend a lower cost system to his organization based on survey response in the categories most important for a particular setting. In another scenario, the survey may demonstrate the distinction of one or more systems in a high-end feature that is critical for a special application.

The second User Experience Network survey is in progress and is gathering user experience on 21 physiologic monitoring systems/product lines from 7 leading manufacturers. The survey is designed to capture input from members who have experience using, supporting, and managing wired or telemetry-based monitoring systems in the ICU, Telemetry, PACU, ED, Step-Down unit environments. We hope that ACCE members will contribute their knowledge to this important study. The survey can be found at the following link and requires login with ECRI Institute's Health Devices System, Health Devices Gold, or SELECTPlus user IDs: https://survey.ecri.org/Survey.aspx?i=2178a362ff24402c9d0159fcf16290cc.



Eric Sacks, Director of ECRI Institute's Healthcare Products Alerts

Whether reporting a safety hazard or sharing the details of why you are satisfied or dissatisfied with a system that you support, you can influence quality of care and patient safety by sharing your medical technology experiences through ACCE, AAMI, ECRI, IHE and similar programs. Get involved and make a difference in your community and in the overall healthcare system.

Eric Sacks, Director of ECRI Institute's Healthcare Product Alerts

esacks@ecri.org

AAMI Update: Publication Compares, Contrasts Healthcare and Nuclear Industries; Small-bore Connectors Project Progresses; HTSI, AAMI Publications Snatch Awards

What can the nuclear power and healthcare industries learn from one another? That question is the focus of a new AAMI publication, *Risk and Reliability in Healthcare and Nuclear Power: Learning from Each Other*, the result of a two-day workshop last year.

The 120-page publication was edited by AAMI President Mary Logan, Bruce Hallbert, PhD, director of nuclear science enabling technologies at the Idaho National Laboratory (INL), and Matthew Weinger, MD, professor of anesthesiology, biomedical informatics, and medical education for Vanderbilt University. It features eight chapters written by industry experts, who review the similarities and differences between the fields in four topic areas: Dependability of safety-critical software, Diagnostic and prognostic technologies, Human factors, and Event analysis and corrective action.

"The workshop was a first step at making the advancements in two safety-critical fields available to one another," Logan said. "The invited attendees started with curiosity about what healthcare could learn from nuclear power and vice versa. By the end of the first morning, the curiosity had turned to excitement, as these individuals realized they were sitting in the same room with giants well known in the other field. By the end of their two days together, it was obvious that we were onto something important."

Moving forward, experts in the two industries hope to work together on research projects, workshops, and position papers.

By the middle of 2014, hospitals and other healthcare facilities likely will start to see newly designed small-bore connectors on the market, the end result of an ambitious and sweeping effort to eliminate a significant patient safety hazard— tubing misconnections.

To prepare for what's expected to be a huge change for both the medical device industry and healthcare facilities, AAMI is working with other organizations to spread the word about what's coming down the pike.

An international joint working group is developing a series of standards that will, when implemented, make tubing misconnections involving small-bore connectors virtually impossible because the design of the connector will no longer be universal. Instead, the design of each connector will be specific to its application.

The new designs have undergone, or will undergo, testing based on the application. As soon as the testing and standards approval processes are complete, members of industry are expected to redesign their connectors and submit them to the U.S. Food and Drug Administration for approval. Once approved, manufacturing of the new connectors is expected to begin in earnest.

AAMI is participating in efforts led by The Joint Commission and including the FDA, the American Hospital Association, industry, and other partners to help prepare the marketplace for this change. The purpose of this campaign is to: Generate broad-based awareness of the need for this change; Facilitate rapid adoption of new global standard tubing connector; Minimize disruption to the supply chain and clinical practice while maximizing increases in patient safety.

The impetus for this standards initiative stems from what many experts see as an underreported problem in healthcare: tubing and catheter misconnection errors, which have injured, and in some cases even killed, patients. Misconnection occurs when tubing to or from a medical device is unintentionally attached to another device that performs a completely different function. For example, there have been documented cases of feeding tubes being mistakenly connected to ventilators or trach tubes. Such misconnections can happen because of the universal design of what's called the Luer connector, which allows physiologically incompatible systems to become connected.

The AAMI Foundation's Healthcare Technology Safety Institute (HTSI) has received the GE Healthcare-AACN Pioneering Spirit Award for its efforts to advance high acuity and critical care nursing regionally and nationally.

The award was presented May 20 during the American Association of Critical-Care Nurses' 2013 National Teaching Institute & Critical Care Exposition in Boston. AAMI President Mary Logan and Leah Lough, executive director of the AAMI Foundation, accepted the honor, along with other AAMI staff and supporters. Winners receive a plaque and $750 honorarium, which will help fund another HTSI project.

Established around the vision that "healthcare technology will advance patient safety and will do no harm," HTSI has concentrated its efforts on infusion safety and clinical alarms. Its focus is to develop and share best practices, publish papers about safety innovations, identify and fill research needs, close education gaps, and reduce errors from the use of healthcare technology.

Logan thanked the HTSI volunteer community for all of its hard work. "This award really belongs to the HTSI community, especially the infusion and alarm steering committees. These are dedicated clinicians, industry experts, regulators, researchers, and others who are so committed to patient safety, they are willing to give their time to help make a difference," she said.

Separately, three AAMI publications: *BI&T* (*Biomedical Instrumentation & Technology*), *Horizons*, and *AAMI News* were big winners in a national competition. The American Society of Healthcare Publication Editors (ASHPE) has honored AAMI with:

(Continued on page 13)

VA Clinical Engineers Flock to to AAMI2013 in Long Beach

The Department of Veterans Affairs (VA) had approximately 100 Biomedical Engineering professionals attend the 2013 AAMI conference in Long Beach, CA. The VA professionals attended educational sessions, the exposition hall, and participated in networking events as means of sharing best practices. Members also shared lessons learned with the larger clinical engineering community by presenting on current healthcare issues in numerous educational sessions. These sessions addressed topics such as patient safety, equipment management, emerging technology, and career management. Many newer engineers noted the conference highlighted the importance of our profession and energized them to spread the knowledge gained from the events - including the need to outreach to current college and high school students.

Another highlight of the weekend included the AAMI award luncheon where Barrett Franklin, VISN 1 Biomedical Engineer, was the first recipient of AAMI's Young professional award. This was a great honor and our organization is proud of his contributions to our field!

This conference was enjoyed by VA participants and most are already planning their attendance at the 2014 conference in Philadelphia!

Michelle Baquie

michelle.baquie@va.gov

Barrett Franklin, CCE, VA Clinical Engineer, and winner of the first AAMI Young Professional Award

AAMI Update continued

(Continued from page 12)

A Gold Award for best special supplement for the fall 2012 edition of *Horizons* that focused on mobile health; A Gold Award for single issue of a newsletter for the April 2012 edition of *AAMI News;* A Bronze Award for best news coverage for the cover story in the May/June 2012 edition of *BI&T* that examined cybersecurity and healthcare.

Ray Laxton, chair of AAMI's Board of Directors, said the awards mark a proud moment for the organization. "Our members have always given top marks to AAMI publications for their thoroughness, accuracy, quality of the content, and the helpful, practical guidance contained in the articles," said Laxton, vice president of Strategic Partnerships with ARAMARK Healthcare Technologies. "We were up against some top publications in healthcare, and some much larger publications with significant resources. These awards are not only for AAMI staff and the Editorial Board, but for all AAMI members."

AAMI staff

ACCE Welcomes New Members

Let's welcome our newest members, recommended by Membership Committee and approved by the ACCE Board of Directors.

Individual Members:

Omur Sen, MS, Sr Clinical Engineer, New York Presbyterian Hospital

Mario Medvedec, PhD, Professor, University Hospital Centre Zagreb, Croatia

Mohamed Basiony, consultant, KJWW Engineering

Pipper White, CCE, Interim Director, Medstar Georgetown Hospital

Ploypan (Aom) Jensen, Clinical Engineer, Baystate Health

Patrick L. O'Meley, MS, Assistant Director, Office of CIO/Dept Immigration, Australia

Gerald R. Goodman, CCE, DrPh, Professor and Program Director, Texas Woman's University

Organizational Members:

Dept of Veteran Affairs

Michelle M. Baquie, BME, MBA, CCE, Healthcare Technology Manager

Salvador I. Guerrero, Chief Biomedical Engineer,, Dept of Veterans Affairs, El Paso, TX

James Wear, Membership Committee

membershipchair@accenet.org

HTF Healthcare Technology Foundation News

HTF Healthcare Technology FOUNDATION

Improve healthcare delivery outcomes by promoting the development, application and support of safe and effective healthcare technologies.

Annual Meeting

HTF held its annual meeting following the 2013 AAMI Exposition in Long Beach, CA on June 4th. The VA VISN 21 headquarters was kind enough to provide accommodations. Attendees included Tobey Clark, Izabella Gieras, Paul Coss, Jennifer Jackson, Jim Keller, Tom Bauld, Don Tucker, Ted Cohen and Jennifer Ott. Hank Stankiewicz even joined the entire time via phone! It is always good to have a live discussion and focus on the strategic plan of HTF.

The first order of business was elections. The executive slate will remain as is: Tobey Clark – President, Jennifer Jackson – Vice President, Jennifer Ott – Secretary, Henry Montenegro – Treasurer, Bill Hyman – Past President. Don Tucker, Marcia Wylie, and Ted Cohen will start their second term on the board. Jim Wear will move to the advisory board. We currently have two open board positions and brainstormed ideas to complement our strategic plans. One item of importance is to maintain depth for succession planning. These discussions will continue at future meetings.

Fundraising

In order to maintain a viable foundation, funds need to be generated. Tobey Clark, Jennifer Ott, Tom Bauld and Paul Coss utilized the opportunity of the AAMI Expo to further develop contacts, introduce HTF and the strategic projects and funding opportunities to a variety of vendors. ACCE members are also a great source of opportunity for contacts and potential donations. Like what we are doing? Feel free to donate. Every bit helps! Don't like what we are doing? Contact us and give us some feedback. Our mission is listed above. We want your assistance to bring it to fruition! If we could go to vendors and mention that the entire HTF Board plus all the ACCE members believe in what we do, we could really further the mission.

Patient Education on Technology Safety

The ad hoc group continues to review the next brochure: *Home Infusion – A Safety Guide for Patients and Caregivers*. We hope to release this in the next few weeks. Do you see any need for public education materials? If so, please drop us a line. This is an important part of work to fulfill our mission.

AAMI/FDA is hosting a summit on Healthcare Technology in Nonclinical Settings in October. Our goal is to get some time to educate on our current brochures and further develop opportunities for distribution and future topics. We are also exploring the idea of turning these brochures into videos.

Clinical Alarm Management

HTF was fortunate to co-host with the AAMI Healthcare Technology Safety Institute an Alarms Systems Management Roundtable the last day of the AAMI conference. Despite having to compete with the Technical Iconoclast session, we attracted more than 65 attendees who were deeply engaged in the topic and provided great dialogue and discussion. The ad hoc group is currently reviewing the notes taken at the session and developing a plan of action. We hope to utilize AAMI resources to continue the dialogue and share best practices. There is already a webinar in development with ACCE to be held in the fall.

Marge Funk is putting the final touches on an alarm-related paper to be submitted to the American Journal of Critical Care. This will go far to further enhance our relationship with other clinical societies on such an important multi-disciplinary topic. She is also working with another Yale nursing faculty member, Linda Pellico, in analyzing the comments received on the most recent alarm survey. This is an arduous process but worthwhile. More on this will be shared as developed.

HTF and AAMI also held a breakfast session on Alarms Management at the National Patient Safety Foundation in May. It too was well attended. Presentations were made by Gerry Castro, Director of Patient Safety Initiatives at TJC, and Dr. Adam Saperstein of Johns Hopkins. Industry representative were very engaged in discussions. We hope to follow-up on the contacts made.

Managing Risks of Integrated Systems & Networks in Healthcare

A Request for Proposal is out from AAMI and HTF to develop content for a training program on risk management of integrated systems. The project entails subject matter experts developing one or more modules on networking and integration; ANSI/AAMI/IEC 80001-1 Risk Management; project and change management; and tools and resources to sustain safe integrated systems related to networked environments. In addition to drafting content, developers will present materials at face-to-face workshops held in late 2013 and 2014 and further expand and adapt content for an online program. The link to the announcement and RFP is http://www.aami.org/news/2013/051313_Press_RFP_Training_Risk_Management_IS.html All proposals must be received no later than 5:30 p.m. ET on June 14, 2013.

Be sure to visit the HTF website to see all the latest news from the foundation, our programs, and resources. While you are there, feel free to hit the DONATE NOW button. We will accept donations anytime and they are always tax deductible!

Tobey Clark, President HTF

president@thehtf.org

Jennifer C. Ott, Secretary, HTF

secretary@thehtf.org

International Committee

Mario Casteneda, ACCE International Committee member and past ACCE President, delivered the International Committee report to a standing room only crowd at the ACCE reception and award program at AAMI 2013.

The International Committee has 19 members, monthly meetings and 26% of ACCE members are international members from all continents, excluding Antarctica. In the past year, there was an Advanced Clinical Engineering workshop (ACEW) in Lima, Peru in Nov 2012 and ACEWs are planned in 2013 for Brazil (October), Colombia (August) and Ecuador (November). In addition, several countries have requested ACEWs for the near future including Costa Rica, Ghana, Mexico, Saudi Arabia, Turkey and Zambia.

In addition to the ACEWs, the ACCE International Committee participated in Biomedical Engineering conferences in Chile, China, Colombia, Ecuador and Italy. Other recent projects have included implementation of a Biomedical Training Program for the Minister of Health, Guyana, South America -- in collaboration with Global Links/PAHO. If you are interested in participating in any of these projects or ACEWs, please contact the secretariat@accenet.org to get your name on the faculty roster.

The ACCE International Committee is also assisting in global communication via INFRATECH-- a Listserv service -- since 1999, and is coordinating a transition to the WHO Communication Platform in 2013.

With great pride and public recognition, ACCE presented plaques to the winners of the Antonio Hernandez International Clinical Engineering Award, and the ACCE/HTF International ACEW award for institutions to the following:

Renato García Ojeda, Doctor in Biomedical Engineering (BME) of Brazil received the Antonio Hernandez award as the outstanding international CE this year. Professor Garcia pioneered CE activities at Universidade Federal de Santa Catarina in 1987. In 2005, he established the Center for HTM (Centro Tecnologia Medico-Hospitalar) within the newly created Institute of BME (IEB-UFSC), of which he is one of the founding members and its current Director.

International award winners: Jesus Soto (Colombia), Tatiana Molina (Colombia), Renato Garcia (Brazil)

As for institutional recognition in 2013, the award was shared by the CES University (CES) and Escuela de Ingeniería de Antioquia (EIA) Biomedical Engineering Partnership program in Medellín, Colombia.

Representing CES to receive this award was Engineer **Tatiana Molina Velázquez,** and representing EIA was **Jesús María Soto Castaño, MD.**

José María Maya Mejía, MD, Director of CES University sent ACCE a thank you letter to express the University's gratitude for the award and to state that this recognition " fuels the pledge to continue the support of the mission of these university programs."

To close, on the lighter side of international activities, Jim Keller, Mario Castaneda, and Tom Judd attended the annual "Japanese Tea Party" at AAMI. This is a fun event sponsored by the Japan Association for Clinical Engineers and designed to foster professional collaboration among clinical engineering associations. After the formal presentations American attendees were encouraged to join in song with the Japanese counterparts. They made it easier by starting themselves with a beautiful Japanese song and then passing around the lyrics of "Oh Susana " for the American audience to sing.

Mario Castaneda

Mario@healthitek.com

International: HTM in Mexico, CENETEC

Mexico has a widely and dispersed Health System conformed by different institutions divided into three sectors: public, social and private that have different levels of complexity. Every healthcare facility has its own standard of Health Technology Management (HTM). However most of the health care establishments share the same problems related to medical equipment as follows: They don't have sufficient funds for maintenance and support; They don't meet the demands of the nearby population.

Medical equipment malfunctions increase patient cost by duplicating analysis, some equipment is underutilized, and some devices require specialized medical and technical professionals.

These problems can be addressed as follows: Knowledge, training and tutoring of professionals; Project management for medical equipment projects; Medical equipment maintenance and quality control.

The Mexican Ministry of Health considered that in order to overcome these problems, medical technologies needed to be incorporated into the Healthcare System in a more orderly way, and decided in 2004 to create the National Center for Health Technology Excellence (CENETEC) within its structure.

Since its birth, CENETEC has been committed to the mission: "To contribute to the satisfaction of decisions and policy makers needs on management and assessment of Health Technology through, direct advise to users and administrators; coordination of efforts from institutions in the health sector; and the generation and dissemination of information."

One of the main purposes of this agency is to embrace Healthcare Technology Management (HTM) in Mexican Healthcare System. And to give actions to this target CENETEC has generated the following achievements:

Linchpin for Healthcare Technology Management in Mexico. Published documents and guidelines to aid HTM in the state departments of health.

Bestow a blog, facebook page and twitter account to disseminate HTM and helps to interchange experience and knowledge.

Coalesce with Federal and State ministry of Health about the importance of Medical Technology, so money could be disposed for maintenance and specialized human resources funds. Attendance to meetings with state health minister to communicate the importance of HTM and guide them for the implementation of Biomedical Engineering State Centers (CEDIB).

Resources for Projects of Medical Equipment as an instrument to administrate efficiently and rationally the equipment fund.

Alliances and agreements at the national and international level with sectorial and institutional work groups, making synergies to aid Health Technology Management. Complementing as a national and international advisor for medical technology.

Encourage better quality, more secure and less expensive services by expanding knowledge to individuals who works as managers of medical equipment independent of its study branch. As the Clinical Engineering workshops that since 2006 have trained more than 1,500 engineers, technicians and others in related fields.

CENETEC is a recognized by WHO as a center for reference and has demonstrated to be capable of transmitting the importance of healthcare technology expanding widely over the country. The workshops are a very didactic way to understand HTM, but not all have the time, opportunity or money to travel. In order to support those managers, CENETEC develops guidelines that helps them in their daily jobs. These guidelines include topics such as instrument and equipment acquisition, third party contracts, donation, integral services and medical device deployment.

Nowadays, CENETEC is working in the development of a HTM virtual course which will be implemented on January 2014. This e-learning program should be for individuals working with management of medical technology in all governmental healthcare establishments. Some of this manager's doesn´t have the ability or training as a biomedical engineering and have them force working with none or scatter information about the subject. The curricula start on what is clinical engineering, its role and profession, continuing with healthcare technology management and the process within it and for a final closure ethics in clinical engineering. CENETEC hopes that this course will foster HTM in Mexico Healthcare System, producing more prepared specialists and being a catalyst for quality.

www.cenetec.salud.gob.mx

Laura López, and Mayabel García

Journal of Clinical Engineering Subscriptions for ACCE Members

ACCE members receive a discounted subscription to the Journal of Clinical Engineering for only $99! (Originally $222) Visit LWW.Com and enter code WDK136ZZ at checkout.

Journal of Clinical Engineering Call for Papers

The Journal of Clinical Engineering prints selections of the ACCE News in each issue and is interested in papers from you. If you have an urge to write, and good clinical engineering activities or ideas to share, please consider JCE as one of your outlets. One type of article not seen in a while is the Department Overview which presents how your department is structured and how it performs its functions. Shorter "Perspective" pieces are also welcome. You can discuss manuscript ideas with fellow member William Hyman, who is one of the editors of JCE. Contact: w-hyman@tamu.edu.

Send manuscripts to William or Michael Leven-Epstein at: Michael.levenepstein@gmail.com

Last Season's Teleconference Speakers Thank You! from the Education Committee




Left to right: Betty H. Kelly, RN, Project Management for CE – Part 2 – Clinical Point of View; Linda Campbell, Project Management for CE Part 1; Steve Grimes, Business plan/strategy writing; Kathryn Pelczarski, Medical Device Alarm Management

Mario Casteneda, Succession Planning/Developing Leadership

The Education Committee would like to thank our speakers from the very successful 2012-2013 Teleconference series. These distinguished speakers are from all over the US, representing manufacturers and hospital staff. We had doctors, nurses, clinical engineers, IT representatives, managers, directors, administrators, etc. We would like to thank all of them for taking time out of their busy schedule to share with us their knowledge and help us advance the Clinical Engineering profession. We would like to give special thanks to our Pro-Bono Speakers, pictured here. These speakers not only took time out of their busy schedule to support ACCE through the Teleconference Series, but they decided to do this for free in order to save ACCE money to support other ACCE activities.

Ilir Kullolli, Chair, Education Committee, and ACCE VP

Suly Chi, Teleconference Coordinator

Jennifer Jackson, Device Integration and EMR




Left to right: John Rhoads, Health Level 7 (HL7); Mark Sugrue RN, Technology Affecting Clinical Outcomes; Binseng Wang, CMS Revised Requirements; James Welch, Medical Device Alarm Management

2013 CCE written exam review webinar series

Wednesdays – August 14 through October 16, 2013
12:00PM – 1:00PM (Eastern Time)
Faculty: Matthew Baretich, Tobey Clark, Ted Cohen, Frank Painter.

Registration Deadline: July 31, 2013

Prepare for your November CCE written exam. This 10 session series will be presented by a group of ACCE Faculty who are CCEs. The class will outline and present the material in each of the main subject areas covered on the exam.

Email your registration from to secretariat@accenet.org

The registration fee is:

- $450 for ACCE members
- $495 for non-members

All attendees will receive the review course presentation materials.

Note: This course may be cancelled by ACCE if the minimum number of attendees does not register.
Disclaimer: This course is prepared and offered by individuals who are not involved in the preparation of the CCE Exam.

ACCE Calendar

August 14, 2013
CE-IT Virtual Town Hall Meeting: Calling all Teckies: mHEalth Trends
Register here: https://www1.gotomeeting.com/register/147737657)

October 3, 2013
ACCE Fall 2013 Virtual Membership Meeting

November 21-22, 2013
5th Annual Medical Device Connectivity Conference and Exhibition
Herndon, VA

February 23, 2014
HIMSS 2014
Orlando FL

June 1-3, 2014
AAMI2014,
Philadelphia PA

June 2, 2014
ACCE membership meeting & awards reception
Philadelphia PA

ACCE
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