ACCE News

Newsletter of the American College of Clinical Engineering

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President's Report: IT/CE Integration

Today clinical engineering is facing a major and immediate challenge as medical and information technology convergence plays an ever increasing significance to in our profession and work. The new healthcare technologies we acquire and support are more and more frequently integrated and networked systems ... often interfacing with legacy systems. Effective support of these new integrated and networked technologies literally adds a significant new *dimension* to the role of clinical engineering. To support this new dimension, ensuring connectivity, integration, security and a robust infrastructure for these new technologies, clinical engineers must develop a whole new mind- and skill set.

Recognizing the need for this new dimension, ACCE has added *Growth/Evolution* as its fifth core purpose (in addition to the original four: *Advocacy, Representation, Value, and Education*). By adding *Growth/Evolution*, we are formally acknowledging that the clinical engineering paradigm is changing and to best serve its members and the healthcare industry, this organization must take a proactive approach in identifying the necessary changes and providing resources for our members to make those changes. To this end ACCE has been sponsoring more educational programs addressing new technology support challenges (e.g., our half-day Symposium on "Medical Device Integration Projects" at AAMI 2007), has taken a leadership role in industry initiatives (e.g., *IHE – Integrating The Healthcare Enterprise* and *medical device security*) and has developed new strategic alliances with professional organizations whose interests have a significant intersect with ACCE's (e.g., HIMSS, CHIME). We believe all of these efforts help to equip clinical engineers with the knowledge and resources they need to rise to the new challenges. And we believe these efforts also help educate other stakeholders in the healthcare industry regarding the contributions clinical engineering can and must make if the deployments of these new and emerging technologies are to be truly effective.

Consistent with our goals of providing our members with access to critical resources they need to meet their new challenges and to strengthen key strategic alliances, ACCE is considering moving the venue for our 2008 annual meeting from the AAMI Conference (where it has traditionally been held) to the Health Information and Management System's Society (HIMSS) Conference and Exhibition taking place February 24-28 in Orlando, FL. We are seriously considering this move for a number of reasons. ACCE and clinical engineer-

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Preview of ACCE at AAMI Boston

This year the annual conference for the Association for the Advancement of Medical Instrumentation (AAMI) celebrating AAMI's 40th anniversary is June 16-18 in Boston, Massachusetts.

Once again, AAMI 2007 promises to be another exciting event for ACCE members! First, we will kickoff the weekend with the ACCE Clinical Engineering Symposium on Saturday, June 16 from 8AM -Noon. This year's topic is one of growing interest for many clinical engineers around the globe: Medical Device Integration. As the demand grows for medical devices to connect to hospital information systems, for example, to auto-populate electronic healthcare records or to connect to each other to improve the quality and safety of hybrid technology systems, many clinical engineers are asking questions like 'where do I start ?' and 'what am I getting myself into?

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Inside this issue:

AAMI Coming Soon

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ACCE created a symposium to bring the experiences of building these integrated systems to the clinical engineering audience at AAMI. John Halamka, MD, Chief Information Officer for Caregroup Healthcare System will provide the introductory keynote address, followed by confirmed speakers Julian Goldman, MD, and Rick Schrenker, both from Partners Healthcare/ Massachusetts General Hospital and Bridget Moorman from Kaiser Permanente. This will be a provocative symposium on a very important topic for all healthcare technology managers.

On Sunday, be sure to attend the session 'Meeting the Challenges of Integrating the Healthcare Enterprise (IHE)'. This session is sponsored by HIMSS and will present this important multi-year initiative, which ACCE helped launch and continues to support, as we see that integration initiatives like this and others will redefine our profession in the very near future.

Also on Sunday, ACCE will host our annual All-Member meeting. The All-Member meeting is a great time to catch up with old friends and meet new peers. After the cocktail reception, members will learn about the State of ACCE, vote on the proposed slate for new officers, and celebrate some of our members' great achievements during the annual awards ceremony. As of press time, the location was still under negotiation, but watch your email and the ACCE website for the location and time of the event.

AAMI is still accepting registrations for the conference but hotel space is filling up fast. Don't forget that as an ACCE member, you get the AAMI-member discounted rate for the registration fee. Visit our website at http://www.accenet.org and follow the link for the AAMI conference for more information on the conference.

Jennifer Jackson, President Elect

jenniferljackson@yahoo.com

ACCE Mission

1. To establish a standard of competence and to promote excellence in Clinical Engineering Practice
2. To promote safe and effective application of Science and Technology to patient care
3. To define the body of knowledge on which the profession is based
4. To represent the professional interests of Clinical Engineers

CCE Certification: New Applicants and Renewals

1. The next CCE exam will be given on November 3, 2007 in 28 cities around the US. The deadline for applications is September 1, 2007. Please see the website: http://www.acce-htf.org/certification to view the handbook and application for this exam.

2. Any certified clinical engineer that is currently listed with the ACCE Healthcare Technology Foundation's Healthcare Technology Certification Commission and whose listing expires on June 30, 2007 has until June 1, 2007 to complete and turn in their completed renewal form. The CCE renewal Handbook and Renewal Application Form can be downloaded from the CE certification website: http://www.acce-htf.org/certification. The renewal fee can be paid by check or by credit card on the ACCE HTF website.

3. In 2007 the mix of questions on the CCE exam will change slightly as the exam content adjusts to track the changing clinical engineering body of knowledge. This past summer ACCE released the results of a recently conducted "Body of Knowledge Survey". The US Board of Examiners for Clinical Engineering, chaired by Patrick Lynch, are making the adjustments in the mix of questions. The changes will be published in the 2007 CCE Handbook which is available on the ACCE-HTF website.

4. Any questions can be directed to Cheryl Shaw, the certification program's new secretariat, at certification@acce-htf.org.

ACCE News

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To subscribe e-mail Secretariat@accenet.org

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

Editors Ted Cohen
theodore.cohen@ucdmc.ucdavis.edu

Melissa Burns
mburns02@yahoo.com

Circulation. Alan Levenson
Secretariat@accenet.org

Advertising Dave Smith
advertising@accenet.org

Address Corrections
Al Levenson
ACCE Secretariat
Secretariat@accenet.org

President's Report: Annual meeting to HIMSS in 2008?

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ing has had a significantly increasing presence at HIMSS conferences for many years. HIMSS conferences typically have in the neighborhood of 25,000 attendees, 850 exhibitors and offers more than 300 educational sessions. A significant and growing number of these educational sessions relate to clinical engineering (e.g., medical technology deployment and management issues, CE-IT convergence, patient safety) and are now identified in the HIMSS program as part of a *"clinical engineering track."* Virtually all major medical equipment manufacturers and support organizations have large exhibits devoted to their clinical systems and support services. This past February in New Orleans, ACCE held its 2nd *Clinical Engineering & IT Leadership Symposium* in conjunction a HIMSS Annual Conference ... a sold out program for the 2nd straight year. A new special interest group (SIG) devoted to clinical engineering and IT convergence issues held its first face-to-face meeting ... the largest of any HIMSS introductory SIG meetings to-date (and HIMSS maintains a listserv for this SIG). This year HIMSS, with ACCE co-sponsorship, offered the *Excellence in Clinical Engineering & IT Synergies Award* at it's prestigious annual awards banquet ... helping to put clinical engineering "front and center" in the eyes of influential players in the IT community. Additionally, ACCE held a well-attended reception and breakfast meetings where both clinical engineers and IT and other interested professionals were able to network.

In light of the nature of technology challenges facing clinical engineering, considering the exposure clinical engineering has had and is likely to continue to receive at HIMSS, and based on feedback we've received from clinical engineers who've attended previous HIMSS conferences, the ACCE Board has decided to investigate the feasibility of holding ACCE's principal membership meeting at the HIMSS annual conference venue starting in 2008. Prior to making a final decision, the board would like to give all ACCE members an opportunity to comment. Over the next couple of weeks, I would appreciate your directing any comments or opinions you may have on this issue in an e-mail to our secretariat (secretariat@accenet.org) and place "Thoughts on ACCE Annual Membership Meeting Venue" in the subject line. We'll compile a representative list of comments and share those with you (via e-mail blast or our newsletter) and the board will take those comments into consideration in it's ultimate decision.

Many thanks for your help and continued support of ACCE.

Stephen L. Grimes

slgrimes@shcta.com

Board Meeting, February 2007

The ACCE Board met at HIMSS on February 26, 2007. The following is a summary of that meeting.

The Board congratulated Ray Zambuto on the award he would be receiving on Tuesday, February 27 and thanked him for all his service to the profession of Clinical Engineering.

Role of Secretariat

The responsibilities of the Secretariat were discussed. Steve is to follow-up with Al Levenson to submit the description of roles for the Secretariat and Bookkeeper, which will report to the Secretariat. Al is to account for the time of the Secretariat and Bookkeeper.

The Board was in agreement that the Treasurer position should be separated from the role of the Secretariat. It was noted that Al stepped into this role to fill a gap and has done an outstanding job handling both roles. Izabella will work with the Nominations Committee to identify candidates for Treasurer position for 2007/2008.

Board Nominations

Izabella Gieras reviewed the status of current Board Members and who is eligible to continue in their current roles. The Nominating Committee will work on identifying candidates. It was agreed that a call for Nominations/Volunteers could be sent out via email prior to the AAMI membership meeting in June to ensure that those who are unable to attend AAMI get an opportunity to submit Nominations. Jennifer Jackson will forward the results of the survey, including those who expressed interest in Board or Committee positions.

The Board discussed the feasibility of Jennifer assuming the role of President in the future, given her recent relocation from Boston to Italy. The Board agreed that having a President outside the US was feasible in light of current technology and Jennifer's commitment to travel to the US for Annual Membership Meetings. It was also noted that it could be advantageous to advancing ACCE outside of the US. Barbara Maquire will review the By-Laws to ensure this arrangement does not violate any by-laws and to determine what are the requirements, if any, for the Board President to present in person at any other functions.

Professional Practice Guidelines

The drafts were discussed and Steve Grimes requested that they be posted in a location on the ACCE web site that could be limited to the Board until the Board review is completed. The goal is to have the PPGs reviewed and approved by the Board at the next meeting in April 2007. The need to balance legal liability with having specific, useful

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Six Days in the Penalty Box (aka Hospital)

Several weeks ago I had a unique event happen to me, I was an inpatient at a hospital. The last time I was an inpatient was almost 20 years ago for a kidney stone. This time, what drove me to the hospital was shortness of breath one morning.

After smoking a couple of pipes, the breathing did not clear up so it was off to the emergency room. To make matters more interesting, the wet snow had turned to rock hard ice and people were falling all over and the flu was running wild. But with shortness of breath, I got preference at the triage desk. I am saying give me a decongestant and I will be out of there but they said slow down your pulse rate is over 150, your ECG looks like crap and you are going no where soon. I spent over 11 hours in the ER before I got a bed, by then I am ready to kill, but no one thought to give me something to calm me down. Laying in the ER I learned how stupid all the HIPAA requirements are as they do not take into consideration patients with bad hearing, drifting in and out of reality and the general noise background in an ER. The patient on one side was having seizures, hollering and jumping around, while on the other side the patient needed a chest tube. I got to hear both histories, both treatment plans and who was the insurance coverage with and other details. If I was listening, I could have had even more information. So much for HIPAA.

Getting into a room on the telemetry floor was another interesting event. I am not sure how the staff could function with all the alarms going off, mostly for no reason, but somehow picking out the critical alarm to respond to when needed. This is a problem that we have to look at as clinical engineers. The staff should be taking care of the patients not the equipment.

At some point an ultrasound unit was rolled in. Being ever an engineer, I noted that this unit had recently been on the recall list from the FDA and what was its status. The operator gave me a blank stare, told me to shut up and be still.

By this point I felt like I was on the TV show House, as there were about 5 diagnoses' and no one was sure what was wrong. So, it was suggested that I have a cardiac cath, but to do that I had to be moved to another hospital. The ambulance ride was interesting, as the driver never missed a bump over the entire trip.

After the cath, which was clean, the physicians were hard to find. We wanted answers and they did not have them. Finally one of the physicians showed up and went over what was going to be done. They would use drugs to slow the heart rate, they would use drugs to correct the atrial flutter, and they would use drugs to get my ejection fraction up. But, I may have to be cardioverted, I may need a pacemaker, I might have a virus that is causing the problems so after 6 days in the hospitals I sit knowing exactly what I knew when I went to the emergency room, from time to time I have shortness of breath.

I will be signing over the rights to the story to the writers on the television show *House* and will expect to see it during the sweeps month next fall.

So, Clinical engineers make lousy patients, as we question what is being done to and or for us, but it is one of the few ways that we can actually learn about some of the problems with equipment, procedures, communications between the clinical people and application problems. I don't suggest that you sign yourself in as a patient but if someone you know is a patient, talk with them on what their experiences were, it will help us to do our jobs better.

Seriously, I am feeling better, not smoking for the first time in 52 years and have only had a few homicidal urges. See you at AAMI in June.

Dave Harrington

dharrington@techmed.com

Board Meeting Minutes *continued*

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policies was discussed. Paul Sherman will discuss with ECRI if they would participate in the review of the PPGs and to solicit their guidance regarding legal liability.

IHE

The funding for the IHE was discussed and it was agreed that Ray would submit a written justification for the $5,000 funding for HIMMS. The Board supported this amount to be used as necessary by IHE to cover expenses related to IHE.

ACCE Relationships

The feasibility of moving the ACCE Membership Meeting from AAMI (San Jose) to HIMMS (Orlando) in 2008 was discussed. It was agreed to investigate this further by requesting feedback from the ACCE membership. ACCE would still sponsor a half day or single Educational session as well as an ACCE Reception at AAMI 2008, even if the Membership Meeting took place at HIMMS. Izabella will look into the implications of moving the ACCE Membership Meeting up 6 months and the By-laws and to work with HIMMS regarding the potential for a full Membership meeting.

Barbara Maguire, ACCE Secretary

bmaguire@amedlink.com

ACCE Healthcare Technology Foundation Update

The following summarizes recent activities of the ACCE Healthcare Technology Foundation.

Medical Device Safety

Medical device technology is growing at an astounding rate, but effective standards and systems of checks and balances have not kept pace with that growth. The Foundation is helping solve this problem by encouraging communication and collaboration among all industry players. Dr. Yadin David, Foundation President Emeritus and Director of Biomedical Engineering at Texas Children's Hospital, together with Professor William Hyman of Texas A&M university and also a Foundation Board member, recently brought together a diverse group of some 65 stakeholders including biomedical engineers, risk managers, medical technology manufacturers, physicians, nursing leadership and industry regulators to discuss medical-device safety issues at the Responding to Medical Devices Failures Colloquium. The group met at the M. D. Anderson Cancer Center in Houston to hear about different reporting strategies and to develop an integrated action plan for improving patient safety through an effective – and fair – system for reporting device-related mishaps and failures. The one-day event was sponsored by the Foundation, Texas Children's Hospital, Texas A&M University and the U.S. Food and Drug Administration (FDA) Medical Device Industry Coalition. "As an adviser to the FDA and an active member of the Clinical Engineering profession, I am called upon often to help interpret regulations and to investigate devices-related incidents," David said. "I was searching for a way I could help by promoting more open dialogue, a better-educated workforce and better-designed equipment. When I started talking to people in the industry, they encouraged me to bring together this colloquium to generate discussion and proposals."

Over the past 20 years, the average number of medical devices at the patient's bedside has increased from just a few to over 20. Due in part to several high-profile recalls, the public is becoming increasingly concerned about device safety. In response, the FDA is moving rapidly to ramp up mechanisms for additional post market device monitoring. Achieving a higher safety level will require a concerted effort to bridge the gaps among manufacturers, regulators, maintainers, end-users and patients. All segments of the industry will have to share information in a way that will reduce problems and improve patient safety. In a 2006 editorial in an industry magazine, David set the wheels in motion for the colloquium by calling on leaders across industries and communities to join to improve device safety.
"Unquestionably, consumer safety is diminished when there is limited communication among the engineers who design devices, the clinicians who deploy them, the clinical engineers who support them, the regulators who monitor them, and the patients and care givers who experience them," he wrote. At the colloquium, David proposed a system to capture system data, and through review of this data, to reduce errors that is similar to the "black box" method successfully used by airlines. "If we are able to capture data at the point of care in the hospital, so we know what conditions existed that allowed an error to be committed, or a device to fail, and thereby learn how to avoid repetition, health care will be safer and better for our patients."

Foundation Annual Meeting

The Board of Directors of the Foundation had a busy and productive meeting in Houston immediately following the Colloquium. The focus of the meeting was on sustaining and building the current momentum in fund raising and project completion. Current projects include Clinical Alarms, the Shepherd Safety Award, Patient and Public Education, and the new Clinical Engineering Excellence Award. Newly elected to the Board are Dave Dickey, who served in an advisory capacity over the past year, and Malcolm Ridgeway. Since the Foundation has no personnel other than the directors, there is a great need for additional "doers" (as we have come to call those who are active in our projects.) If there are Foundation activities that you have interest in, please let us know.

Donations

As always, donations to the Foundation are welcome at any time, and they are tax deductible.

William Hyman, ScD, PE

secretary @acce-htf.org

Wayne Morse MSBME CCE

president@acee-htf.org

ACCE Healthcare Technology Foundation

A non-profit organization advancing healthcare through technology.

http://www.acce-htf.org/

Perspectives from ECRI: Endoscope Re-processors

ECRI has been very busy over the last several weeks responding to requests for advice from hospitals about regulatory problems with Custom Ultrasonics endoscope reprocessors. The problems have to do with Custom Ultrasonics reported failure to fully comply with FDA good manufacturing practices. As a result, FDA and Custom Ultrasonics have entered into a consent decree in which Custom Ultrasonics has agreed to cease manufacturing and distribution of two of its endoscope reprocessors and their accessories to United States customers. The consent decree will continue to be in effect until FDA verifies that the methods and controls used to manufacture the devices comply with current Good Manufacturing Practices (cGMPs). Additionally, FDA has recommended that owners of the affected models discontinue their use "if another [reprocessing] option is available."

One of the reasons that ECRI is getting so many requests for advice about this issue is that deciding whether to replace or continue to use the affected reprocessor is very difficult. FDA's recommendation to discontinue use of the affected units "if another [reprocessing] option is available" seems straightforward on the surface. It suggests that hospitals find another reprocessor right away and continue with their normal course of reprocessing endoscopes while the cGMP issues related to the consent decree are addressed. But, another option may not be readily available. Or, if another option is available, it will likely require implementation of new reprocessing procedures and accessories. Hospital staff will also need to be trained on the new equipment and new procedures for using the equipment.

Hospitals have also been confused about this issue because information from FDA and the manufacturer has not been consistent and some of FDA's initial recommendations for how to address this problem actually conflicted with endoscope reprocessing guidelines from infection control organizations and ECRI.

ECRI has written two *Health Devices Alerts* Special Reports articles (February 16, 2007 [Accession Number S0149] and March 9, 2007 [Accession Number S0153]) to help clear up some of the confusion about this problem and to answer some of the questions we have been receiving from hospitals on this topic. The articles also provide ECRI's perspectives on the problem and provide ECRI recommendations for hospitals that have Custom Ultrasonics reprocessors. The ECRI Special Reports point out that many hospitals will likely need to continue to use their Custom Ultrasonics reprocessors. The articles note however, that availability of spare parts and accessories may become a problem and that hospitals may need to begin plans for possible replacement of their reprocessors. This is partly because it is hard to predict when the problems addressed by the consent decree will be resolved. Custom Ultrasonics has indicated that it expects to address FDA's concern within the next few weeks. But, ECRI has seen other similar situations last much longer. Unfortunately this is not a good situation and it has no easy answers.

ECRI is continuing to monitor this issue and will be updating the Special Reports as new information becomes available. In the meantime, we are interested in learning about how hospitals are handling this situation and if any adverse events have occurred with their use. Feel free to contact me at (610) 825-6000, ext. 5279 or jkeller@ecri.org if you would like to share your experiences or discuss this issue. Also, if your hospital is a member of one of ECRI's SELECTPlus or Health Devices programs your can view the *Health Devices Alerts* Special Reports from your member Web pages. I'd be happy to explain how you can access this information if your hospital is not a member of the SELECTPlus or Health Devices programs or if you are not a regular user of the member Web pages.

Jim Keller is ECRI Vice President for Health Technology Evaluation and Safety, and a past Member at Large for ACCE's Board

Jim Keller

jkeller@ecri.org

ORBIS & ACCE: Partners in Bangladesh

The International Symposium and Workshop on Clinical Engineering was organized by ORBIS jointly with ACCE, Bangladesh Ministry of Health and Family Welfare, WHO, and the Commission for the Advancement of Healthcare Technology Management in Asia (CAHTMA). It took place in Dhaka, Bangladesh from March 12-15, 2007. The program consisted of a one-day symposium followed by a three-day workshop.

Before the symposium, the ACCE faculty along with representatives from ORBIS, WHO, CAHTMA visited two healthcare facilities in Dhaka. The visits helped the faculty better understand the challenges in maintaining medical equipment in Bangladesh and refocus the content of the workshop to the local conditions. Bangladesh is one of the world's poorest countries and has serious lack of resources available for public health. A survey conducted by ORBIS determined that at least 30 percent of the medical equipment in the country is non-functional. There are many reasons for these problems with the most significant being: The lack of government policies for planning and supporting healthcare technology, the lack of trained clinical engineering professionals to help lead this process, and inadequate technical support and availability of parts from the local vendor representatives.

The symposium was inaugurated by the Health Advisor of Bangladesh Dr. A.S.M Matiur Rahman. He said, "Modern healthcare is heavily dependent on sophisticated technology but we don't have a sufficient number of qualified personnel to support this. ORBIS International has taken the initiative to address the issue and I greatly appreciate it." The symposium was covered in the local newspaper, The Daily Star (http://www.thedailystar.net/2007/03/15/d70315060381.htm) and on television. More than one hundred participants including university professors, doctors, hospital directors, engineers, and technicians participated in the symposium.

The 3-day Clinical Engineering Workshop that followed the symposium was attended by 30 engineers, technicians, and other healthcare personnel. The faculty for the workshop included Nick Noyes, Director, Clinical Engineering, University of Connecticut Health Center (Workshop Leader); Arif Subhan, Senior Clinical Engineer, Masterplan; Robyn Frick, Manager, Clinical Engineering, Eastern Maine Medical Center (all three from ACCE); Dr. Andrei Issakov, Coordinator, Health Technology and Facilities Planning, WHO; Azman Hamid, General Manager, Healthtronics and Secretary, CAHTMA; and Ismael Cordero, Healthcare Technology Specialist, ORBIS International.

The workshop was taught through lectures, handouts, informal quizzes and group projects. The format was similar to other workshops conducted worldwide by ACCE and WHO, and included practical guidance for developing equipment control and preventive maintenance (PM) programs, implementing performance improvement and customer satisfaction programs, preparing budgets, managing service contracts, developing safety program, and managing human resources. On the last day of the workshop, the participants were

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Symposium Faculty from ACCE, Orbis, WHO, CAHTMA: left to right: Professor K Siddique-e-Rabbani (IUT); Ismael Cordero (Faculty); Manpreet Chadha (ORBIS); Dr. Andrei Issakov (Faculty); Dr. Abu Raihan (ORBIS);Arif Subhan (Faculty); Nick Noyes (Workshop Leader); Robyn Frick (Faculty); Dr Mohammad Nurullah Awal (ORBIS); Azman Hamid (Faculty); Prof Kazi Khairul Islam (IUT); Fatehul Amin (IUT)

Bangladesh Conference continued

(Continued from page 7)

asked to apply the concepts discussed in the workshop to solve real life clinical engineering problems and present their solutions to the faculty and other attendees. The faculty was pleased with the solutions presented by the attendees. Also on the last day of the workshop, the faculty helped the participants start the first 'Biomedical and Clinical Engineering Society of Bangladesh' (BCESB). The faculty made a financial donation to start the society's treasury. At the end of the workshop, the faculty and participants drafted an action plan for the country and presented the plan to Bangladesh Ministry of Health and Family Welfare and WHO. The plan includes creating a national healthcare technology management committee, conducting a nationwide situational analysis of healthcare technology, and developing university and technical school curriculum for BMETs and clinical engineers.

The feedback from the participants of the workshop was very positive. The faculty left Bangladesh with a sense of having laid a strong foundation for clinical engineering and enjoyed sharing their expertise with a group of enthusiastic participants. Robyn Frick, a member of the ACCE faculty, summed it up by saying, "Events like this are a huge opportunity to remember where we started, how we dealt with the early problems in our profession, and learning how to articulate those memories in a way that leads to positive results. The rewards are staggering - think of it- to be part of fundamental improvement of healthcare technology for an entire country, in such a short time!" He further stated that "this is an opportunity for US clinical engineering professionals to give back by joining ACCE and other societies who work towards providing these training workshops in developing countries."

The faculty expresses its thanks to Tobey Clark and Frank Painter for providing assistance and guidance in preparing for this workshop. Also, they would like to recognize the efforts of Dr. Abu Raihan, Bangladesh Country Director, ORBIS and his team of dedicated staff in making the workshop a success.

Ismael Cordero and Arif Subhan

arif@masterplan-inc.com

Audio CCE Review Course

ACCE is offering the CCE Review Course on CDs. This review was taped live at a recent five-session, 8-hour CCE Review Course. The review course was presented by a faculty of clinical engineers who have broad experience working in hospitals, independent service organizations, consulting, government, and industry. Major topics of the CCE examination are reviewed by a subject specialist.

The Audio Course includes:

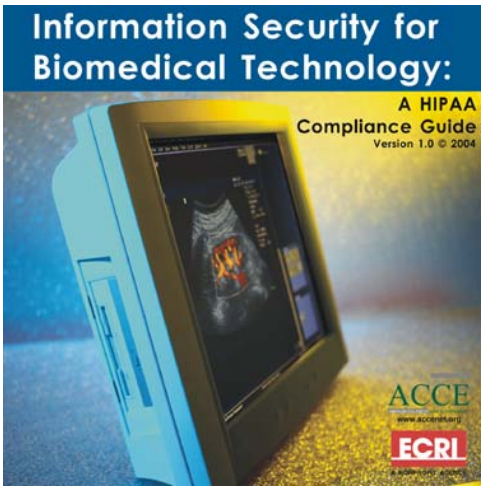
- 8-Hour Review on Audio CDs (including Q&A from the audience)
- Power Point Presentations
- Reference Material for the examination
- Sample Questions

The topics covered in the course are:

1. Introduction to the CCE Exam
2. Management
   - 2.1 Overall CE Program Management
   - 2.2 Financial & Service Contract Management
   - 2.3 Technical Supervision
   - 2.4 CMMS
3. Technology Assessment
   - 3.1 Product/Vendor Selection
   - 3.2 Capital Planning
   - 3.3 Clinical Trials Management
   - 3.4 Building Plan Review
   - 3.5 Building Design
   - 3.6 Human Factors
4. Regulatory/QA Issues
5. Risk Management/Safety
6. Education
7. Product Development
8. Repair/Systems Thinking
9. Miscellaneous Clinical Engineering topics

The Audio Course is available for $300 (ACCE members) and $345* (nonmembers). For more information or to purchase please contact Alan Levenson at secretariat@accenet.org

*Special ACCE Membership Offer – Purchase the audio course and receive ACCE Membership at 25% discount. You need to qualify for ACCE membership and complete the application form. See the membership section at www.accenet.org for details.



HIMSS: Another Successful IT/CE Conference

ACCE was again a co-sponsor for the Healthcare Information and Management Systems Society's annual conference. The HIMSS 2007 was in New Orleans this year from February 25 to March 1, 2007 and included many activities dedicated to the clinical engineering profession, including the expanded CE-IT Symposium, a dedicated educational track, and the premiere of the ACCE HIMSS Excellence in Clinical Engineering & IT Synergies Award presented during the HIMSS Awards Banquet.

The week started with the ACCE Reception for Members and Friends on Saturday, February 25. Despite the local tornado warnings, approximately 30 people attended to help us kick-off the conference. I thought I had traveled the farthest (from Rome), but we had an ACCE representative all the way from Chile. Steve Grimes, ACCE President, welcomed the guests and provided an overview of ACCE-related events for the week. All in all, folks had a great time, but then, we had to stop the fun early so that we could get a good night's sleep before the all-day Clinical Engineering-IT Symposium the next day!

With approximately 100 audience members, the CE-IT symposium started Sunday morning with our keynote speaker, Larry Kessler, ScD from the FDA. Dr. Kessler kicked off the symposium with a very interesting presentation on the Unique ID project for medical devices and what some of the downstream implications might be for both the medical device manufacturers and clinical engineers. Yadin David along with his colleagues from Texas Children's Hospital, Melita Howell and Patti Roger, presented the challenges of implementing an alarm integration project, especially the unique challenges of defining the stakeholders and capturing their specific requirements (and their buy-in for the project).

Elliot Sloane provided a great overview of the IHE organization. He described how the program started, with deep roots in radiology and cardiology, and how it is branching out to other domains like laboratory and patient care devices. He spent some time commenting on the progress of the IHE PCD (patient care devices) project and how important it is to recognize the group's success of bringing the major medical device vendors together during the connect-a-thon and designing a system that communicated between different manufacturers' products.

Tony Caruso and Leslie Kelly Hall both provided fantastic presentations on techniques to use for strategic capital planning. Leslie made a great comment on the importance of including stakeholders from facilities in strategic planning for new construction projects to make sure that the infrastructure can support the clinical engineering or IT initiatives. Tony provided the audience with a great description of having an IT analyst on staff with the CE department to assist with evaluating new IT-based technologies.

Matt Scanlan, MD provided some great insights from a physician's point of view and cautioned the audience to avoid implementing errors through automation in a new system by not understanding all of the stakeholders needs thoroughly.

Blackford Middleton, MD closed the day and gave some great pre-publication data on some of Partners Healthcare's developments on standardizing and automating protocols for managing diabetic patients.

On Monday, Ray Zambuto and Izabella Gieras co-chaired the first face-to-face meeting of the CE & IT Special Interest Group (SIG). Approximately 30 individuals attended representing industry, hospital-based clinical engineering, and hospital-based IT. After introductions, the group discussed Sunday's symposium, including what topics would be of interest for next year. Ideas for topics were exchanged for the discussion board and SIG's upcoming teleconference series.

Our speaker for the ACCE-sponsored education session was Marv Shepherd. He gave us a great presentation on important techniques to use for investigating accidents and completing a risk analysis for new technologies. His comments on the importance of combining the CE and IT members in these analyses lead to an impromptu open-floor discussion on how some CE and IT groups are currently interacting and overcoming some of the differences that have traditionally kept these two groups apart. Bridget Morman, Clinical Engineer from Kaiser Permanente described some of the challenges and successes she found when working on an integration project. Sue Schade, Brigham & Women's Hospital CIO and Jeff Cooper, Director of Partners Healthcare Biomedical Engineering both gave their insights on some of their experiences from when the two departments have collaborated on projects together in the past.

At the HIMSS Awards Banquet on Tuesday night, there was rousing applause for Elliot Sloane and Ray Zambuto when they were presented with the first ACCE HIMSS Excellence in Clinical Engineering & IT Synergies Award. Congratulations to Ray and Elliot!

Jennifer Jackson, President-Elect

jenniferljackson@yahoo.com

Elliot Sloane (L) and Ray Zambuto, both past presidents of ACCE and winners of the first ACCE HIMSS Excellence in Clinical Engineering & IT Synergies Award.

2007-2008 Educational Teleconference Program

06/21/2007
Isolated Power Systems: A Solution in Search of a Problem?
Matthew F. Baretich, PE, PhD, CCE
President, Baretich Engineering
Healthcare facilities continue to install isolated power systems. Do they provide benefits that justify their substantial cost?

7/19/2007
Why many companies are adding a Chief Customer Officer?
Malcolm G. Ridgway, PhD, CCE
Chief Clinical Technology Officer, Masterplan
There is no question that excellent customer service is an important differentiator, and these days everyone needs a good service differentiator. But talking about it and having it are two different things. The presentation will offer a few simple but effective take-aways.

8/16/2007
Understanding the Four Joint Commission Vulnerabilities for Medical Equipment
Gary D. Slack, PE, CCE
President, Healthcare Engineering Consultants
Vulnerability #1: The Survey Planning Session – Medical equipment documents that will be reviewed on the morning of the first survey day and how to ensure that you're ready!
Vulnerability #2: The Facility Tour – What the survey team members will look for with regard to medical equipment while touring the hospital.
Vulnerability #3: The EC Interview – Documentation that must be available and questions that biomedical staff will be asked during the interview session.
Vulnerability #4: The EC Tracers – Likely questions that will be asked of the clinical staff with regard to medical equipment and how to prepare device "users" for the biomedical tracers.

9/20/2007
Using Data to Determine Maintenance Planning
Jim Caporali, BS, AS, CRES
Vice President, Sodexho Clinical Technology Management
This teleconference will address the basic requirements for implementation of Reliability Centered Maintenance (RCM) program as it applies to medical equipment. Structure, implementation, and functionality of an RCM program will be reviewed and discussed.

10/18/2007
Emerging Trends and Technology in Healthcare
John T. Collins, MSEE
Director, Engineering and Compliance, ASHE
This session will describe the latest trends in healthcare influenced by technology affecting such diverse areas as the cardiac catherization lab, neurosurgery, and radiology and plant operations.

11/15/2007
Medical Device Security & HIPAA
Stephen L. Grimes, FACCE, FHIMSS
Principal Consultant, Strategic Health Care Technology Associates
This presentation will: Review the developments in medical device security since HIPAA's Security Rule became effective in April 2005, provide updated information on tools and resources available to address medical device security, address industry's current *best practices,* describe how security now relates to and needs to be seen in context with the larger issue of medical and information technology convergence.

12/20/2007
Evaluating Medical Equipment Battery Failures Using Failure Mode and Effects Analysis (FMEA)
Arif Subhan, MS, CCE
Senior Clinical Engineer, Masterplan
FMEA, which has been embraced by the Joint Commission, is an effective tool that prevents failures before harm is done. The presentation will provide some simple examples of how FMEA can be applied to medical equipment battery failures.

1/17/2008
Is There a Relationship Between Equipment Design and Use Error? A Human Factors Engineering Tutorial
Frank R. Painter, MS, CCE
Director, Clinical Engineering Program
University of Connecticut
Why is human factors engineering critical to the design and development of medical equipment? How can a clinical engineer determine how much human factors engineering went into a piece of equipment and why it is important to know this?

2/21/2008
Responding to Medical Device Incidents
William A. Hyman, ScD
Professor, Biomedical Engineering
Texas A&M University

3/20/2008
(Topic to be announced)
Julian M. Goldman, MD
MGH Anesthesia and Biomedical Engineering, Director, CIMIT Program on Interoperability

The teleconferences are held the 3rd Thursday of each month at 12 Noon Eastern Time (9:00AM Pacific Time etc) for one hour. Registrants will receive the call-in number and presentation material prior to each session.

Enrollment and Questions:

Alan Levenson
Email: Secretariat@accenet.org
Phone (Voicemail): (610) 825-6067

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ACCE Clinical Engineering Certification Study Guide

The American College of Clinical Engineering offers a Study Guide for the Clinical Engineering Certification examination offered by the Healthcare Technology Certification Commission established under the ACCE Healthcare Technology Foundation. The Study Guide is available through ACCE for $30. To order a copy of the Guide, please make out a check payable to ACCE and send to:

Alan Levenson, ACCE Secretariat
5200 Butler Pike
Plymouth Meeting, PA 19462

Or e-mail Secretariat@ACCEnet.org and include credit card information (name on card, type of card, card number, and expiration date). Applications are now being accepted for the **November 2007** exam (see page 2 of this Newsletter).

The ACCE Study Guide was written by an independent group of clinical engineers not associated with the exam process

Calendar of Events

- **June 16-18, 2007**
AAMI 2007
Boston, MA

- **June 17, 2007**
ACCE Annual Membership Meeting
Boston, MA

- **June 25-26, 2007**
HIMSS Summit
San Diego, CA

- **July 8-11, 2007**
ASHE Annual Meeting
New Orleans, LA

- **August 23-26, 2007**
International Conference of IEEE Engineering in Medicine and Biolog
Lyon, France

- **October 2-4, 2007**
Healthcare Facilities Symposium and Expo
Chicago, IL

- **November 3, 2007**
Next CCE Exam (application deadline September 1, 2007)
Various cities in US

- **February 24-28, 2008**
HIMSS 2008
Orlando, FL

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