

ACCE News

Newsletter of the
American College of Clinical Engineering

Volume 18, Issue 2:
March/April

ACCE Honors Awardees at HIMSS

For the first time, ACC E held its annual membership meeting at HIMSS at the end of February and honored several of its members for their outstanding contributions to Clinical Engineering.

ACCE 2008 Challenge Award

Denise Korniewicz, RN
PhD, FAAN, Senior Associate

Dean for Research and Professor, School of Nursing and Health Studies, at the University of Miami is the ACCE Challenge award winner. This award honors Dr Korniewicz's work as an AHTF Advisory Board member, and in joining two ACCE members in developing and publishing 'A Na-

tional Online Survey on the Effectiveness of Clinical Alarms' in the American Journal of Critical Care (2008).

Denise received her PhD, Nursing, at The Catholic University of America in 1986. Her Post-Doctoral Fellowship was in Infection Prevention at Johns Hopkins University in 1989.

Her primary teaching and research interests are in Patient and Health Care Worker Safety, Emerging Infections, and Clinical Outcomes, areas in which she has lectured and published extensively. Her clinical specialties are Emerging Infections, Infectious Diseases, and Adult Health. Denise has been a fellow in the American Academy of Nursing and is currently a member of the expert panel of Emerging Infectious Diseases.

Her other recent honors include many Who's Who lists (2007), medical device outstanding reviewer, Canon (2006), and the Pinnacle Award for Mentorship, Sigma Theta Tau International Honor Society of Nursing (2004).

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Membership Renewal Time

Once again, it is time for you to renew your membership in the American College of Clinical Engineering. ACCE is your professional organization.

Your membership and your participation in ACCE is not only necessary to this organization's success but ultimately it is critical to the future of our profession and our profession's ability to make a major contribution to healthcare through effective technology adoption and support.

Please take a moment to renew your membership now and take a little extra time to provide us with your feedback. Let us know how we can be more supportive of you and your work. And please volunteer! It is most convenient to renew on our website <http://www.accenet.org> by clicking on the yellow highlighted link at the top of the homepage

and logging in. (If you have misplaced your login and password, please let Al Levenson know.) You may choose to renew via credit card securely using the PayPal system. You may alternatively renew by mailing a check or money order to the address below. Don't forget to update your record while you're logged on.

If you are a Candidate Member, please remember that your candidate status is good only while you are a student. If your status has changed, please complete an Individual or Associate Member application form (as appropriate) and submit it with your current resume/C.V.

Please contact Al Levenson if you have any questions.

Al Levenson, Secretariat

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IT Collaboration

Three national associations have joined forces to develop guidance documents, share best practices, and promote an understanding of the issues surrounding the ongoing integration of information technology (IT) and clinical engineering.

Leaders of the Association for the Advancement of Medical Instrumentation (AAMI), the American College of Clinical Engineering (ACCE), and the Healthcare Information and Management Systems Society (HIMSS) have signed an agreement to develop a joint Clinical Engineering/IT (CEIT) community, thus pooling their expertise and knowledge and avoiding the duplication of efforts under way.

The agreement is intended to help improve patient care and safety and to boost the quality and cost-effectiveness of customer service. The agreement also seeks to:

- Foster further development of a united voice for IT and clinical engineering concerns, and provide a forum for its expression.
- Provide a mechanism for developing resources, guidelines, and best practices for the CEIT community, and provide education, research, certification, public policy, terminology, mentoring, advocacy, networking, and career services.
- Explore appropriate collaboration of clinical engineering/IT functions.
- Develop a framework for representing the interests of clinical engineering and IT departments to the broader healthcare community.

"For the first time, we have a written agreement that addresses collaboration on many of the issues clinical engineers and IT professionals have been attempting to iron out," says Bob

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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 in November 2008 in 28 cities around the US. The deadline for applications is September 1, 2008. Please see the website: <http://www.acce-htf.org/certification> to view the handbook and application for this exam.
2. In 2007, ACCE released the results of the new "Body of Knowledge Survey". The US Board of Examiners for Clinical Engineering, chaired by Patrick Lynch, made adjustments in the mix of questions based on that survey. The changes are included in the 2007 CCE Handbook which is available on the ACCE-HTF website.
3. Renewal: CCE renewal is required once every three years. 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.
4. Any questions can be directed to Cheryl Shaw, the certification program's secretariat, at certification@acce-htf.org.

ACCE News

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Awards continued: Advocacy Award to Pressly

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ACCE 2008 Advocacy Award

Nancy Pressly, Acting Director, Issues Management Staff, Office of Surveillance and Biometrics, Center for Devices and Radiological Health, FDA, is this year's award winner for her role in clinical engineering advocacy.

Nancy received her BS in Biomedical Engineering from Catholic University in Washington, DC in 1987. She then joined FDA where she has become a national expert on analysis and resolution of post-market medical device issues, the writing and dissemination of medical device safety information, and medical device standards. She has presented extensively on topics such as EMC, wireless telemetry, and the reuse of single use devices.

As Chairperson of the ACCE Advocacy Committee from 2005-2007, Nancy led ACCE's efforts in several areas related to increasing national recognition of the roles clinical engineers (CEs) play in hospitals. At FDA, for example, she helped to make sure that officials knew of CE capabilities in device issues, in order to seek input when needed, and to help the FDA distribute critical public health safety messages. She and her Committee also encouraged greater representation of ACCE members on various national committees, such as FDA panels, NFPA committees, and device standards development groups.

Nancy also did work to encourage CE presentations at various relevant allied health professional meetings. There has been a particular focus on hospital administrators and risk managers, demonstrating benefits CEs bring to hospitals. She also developed a list and communication con-

tent regarding ACCE activities that was sent to educational institutions that are training biomedical and clinical engineers.

Nancy's other professional affiliations include Co-Chair for the AAMI Infant Incubator Standards Committee and the Clinical Engineering Management Committee, ASTM Homecare Ventilator Standards Committee, and participating as faculty in the ACCE Advanced Clinical Engineering Workshop in Medellin, Colombia in 2007.

Lifetime Achievement Awards

The 2008 Lifetime Achievement awardees are David Harrington and Ted Cohen.

David Harrington has numerous long-term contributions to the field of clinical engineering. Dave started as a designer of medical devices in 1964, became involved in product management and sales, then joined New England Medical Center in 1976 as head of Medical Engineering. In 1996, he departed to focus on international work, heading the non-profit organization (AMRF) several years before starting to develop facilities to make medical supplies in developing countries. At the same time Dave worked part time at Technology in Medicine doing training and special projects.

Dave has been involved with medical equipment and services since 1964, holds 9 patents, and has done medical equipment projects in approximately 48 countries since 1981. Dave has over 90 published articles on medical instrumentation, and about the same number of presentations at meetings around the world. He also taught BMETs at the Benjamin Franklin Institute of Technology for 17 years and courses for clinical engineers at MIT, Harvard, Boston University, Wentworth Institute, and Tufts University. Dave was also the first editor of ACCE News.

Helping others help themselves has been his mantra for many years in Clinical Engineering.

Ted Cohen is the editor of this newsletter and in his "day job" is the Manager of Clinical Engineering at the University of California Davis Medical Center, in Sacramento, California where he has worked since 1978. Ted is very active in AAMI, ACCE and CMIA - the California Medical Instrumentation Association. He has been a board member of AAMI, at-large board member and Vice President of ACCE, a member of the Healthcare Technology Certification Commission, and the Vice President and education coordinator for the Capitol Chapter of the CMIA.

He has presented, taught courses, and published extensively in several medical technology subject areas including: CMMS, cell phones and medical device compatibility, medical technology and IT integration, benchmarking, and Clinical Engineering management. Ted developed, co-wrote and edited the AAMI book "Computerized Maintenance Management Systems for Clinical Engineering" in 1994, and its updated second edition in 2003.

Ted is also currently an instructor in the Electronics Technology department at American River College for a new BMET introductory course that he co-developed called "Introduction to Biomedical Equipment Technology".

ACCE/AHTF Shepherd Safety Award

The winner of the Shepherd Patient Safety award this year is **James O. "Jim" Wear**, PhD CCE CHSP FASHE FAIMBE for his historical leadership in hospital patient safety, notably by co-editing the Hospital Safety Manual and Handbook, and editing the Hospital Safety Information Service from the 1970s to 1990s.

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Awards: Shepherd Award to Wear, Baretich

(Continued from page 3)

Jim is a founding member of ACCE, and until 2007, was Managing Director, Little Rock Employee Education Resource Center, Department of Veterans Affairs (DVA), responsible for training of engineering and safety personnel in 172 VA hospitals. Also he was Professor, Biomedical Instrumentation Technology, University of Arkansas for Medical Sciences (Little Rock, AR) from 1972-2000. He is co-founder and co-chair of the Commission for the Advancement of Healthcare Technology Management in Asia.

Jim received his BS (1959), MS (1960), and Ph.D. (1961) in Physical Chemistry from the University of Arkansas. He is active in the ACCE, AAMI, and ASHE. He has served on the Board of Examiners CEs, BMETs, and Health Care Safety. He is also a fellow in the American Institute of Chemists and Royal Society of Chemistry.

Dr. Wear has written over 150 publications in national journals in Chemistry, Clinical and Biomedical Engineering, and Hospital Safety, twenty chapters in books and co-authored CE Manual, Introduction to CE, Hospital Safety Manual, BMET Handbook, Hospital Safety Handbook, Hospital Equipment Preventive Maintenance (PM) Manual, Nursing Home Equipment PM Manual, and Hospital Engineering Manual.

Dr. Wear has made over 200 presentations at regional, national and international meetings in Chemistry, Clinical and Biomedical Engineering, and Hospital Safety. He has lectured in workshops and courses in a dozen countries, many for WHO with ACCE. Dr. Wear has taught a graduate course in Clinical Engineering

Management at Hong Kong Polytechnic University.

Shepherd Patient Safety Award

Also a winner of the Shepherd patient Safety Award is **Matthew F. "Matt" Baretich** P.E. Ph.D. for his national patient safety leadership, chairing the ACCE Patient Safety Committee from 2000-present, overseeing developing of the ACCE White Paper on Patient Safety (2001), and a participant in the AHTF 'Impact Of Clinical Alarms On Patient Safety' study (2006).

Dr. Baretich has more than 30 years of experience in applying engineering and managerial skills in healthcare facilities. Throughout his career he has worked in changing environments and has adopted boundary-spanning roles. He has published, consulted, and lectured extensively on patient safety topics. He is co-author of the 2008 Electrical Safety Manual published by AAMI. He is also the editor and publisher of the Medical Device Incident Investigation and Reporting manual, originally developed by Marv Shepherd.

Matt has a Ph.D. in Hospital and Health Administration from The University of Iowa (1986), and an M.S. in Biomedical Engineering (1977) and a B.S. in Electrical Engineering, from Iowa State University (1975). He is a licensed professional engineer, a certified clinical engineer, and a certified healthcare facilities manager.

Since 1997 he has been President of Baretich Engineering, Inc., based in Fort Collins, Colorado, providing healthcare consulting in the areas of CE, facilities, and safety management. Services include program evaluation and development, medical and facility equipment planning, and investigation of incidents in which medical equipment or building systems may have

contributed to an adverse event. Prior to this, he had several hospital engineering, safety, and medical device management roles over 20 years, in Colorado, Iowa, and Virginia.

Matt has had leadership roles in several regional and national societies. He is a Founder, Past-President, and Fellow of ACCE. He is also a Fellow of the American Society for Healthcare Engineering and Vice-Chairman of the AHTF Healthcare Technology Certification Commission.

Achievement in Technology Award
Frank Painter, was awarded the Professional Achievement in Technology/Professional Development Award for his long-term work enabling and improving national and international clinical engineering certification programs. Frank R. Painter, MS, CCE, is a clinical engineering consultant in Trumbull, Connecticut. He has over 30 years experience in Clinical Engineering.

Currently, Frank is Clinical Engineering Internship Program Director at the University of Connecticut and directs the only graduate level clinical engineering educational program in the US. He is also a consultant with PAHO and WHO and manages the ACCE Advanced Clinical Engineering Workshops program under the ACCE International Committee.

Previously, he served as Director of Clinical Engineering at two large teaching hospitals, and served as Executive Director of regional ISO in the Northeast. He is immediate Past Chair of ACCE's Healthcare Technology Certification Commission (HTCC) and Vice-Chairman of the International Certification Commission. He has enhanced the certification process over the last 15 years by partici-

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Awards: Excellence Awards to Clark, Painter

(Continued from page 4)

pating in the previous CE Certification program under AAMI as Chair of the US Board of Examiners and ACCE representative to the US Certification Commission. In 2000 he led the effort to redesign the CE Certification process through his role as the first chairman of the HTCC. Frank is currently also facilitating a working relationship between the HTCC and CE Certification Boards of Examiners in Canada, Brazil, Mexico and Saudi Arabia.

Managerial Excellence Award

Tobey Clark, MSEE, CCE, is the winner of the Managerial Excellence award for his development of an innovative bilingual on-line course in healthcare technology management, medical instrumentation, and technical support for developing countries.

The course was made possible through a grant from the Pan American Health and Education Foundation. Tobey has partnered with colleagues from Colombia and Peru to create the on-line course and has hosted six clinical engineering student interns from the collaborating institutions in Vermont. Tobey has led or participated in seven ACCE Advanced Clinical Engineering Workshops in Latin America.

Tobey is on the board of directors of the ACCE Healthcare Technology Foundation. In 2006, he was the Task Force co-leader and co-editor of a white paper that reviews the Impact of Clinical Alarms on Patient Safety, an initiative to improve clinical alarms in healthcare.

Tobey has been University of Vermont's Director of Instrumentation and Technical Services since 1993, is a part time Biomedical Engineering faculty member, and has over 35 years ex-

perience in the area of medical instrumentation. He has been a consultant for services related to medical instrumentation and test devices.

Achievement in Management

Ismael Cordero wins this award for his development of innovative health technology management and support programs for eye-care equipment and practitioners around the world. Ismael is a Clinical Engineer and holds the position of Senior Technical Advisor for Healthcare Technology at ORBIS International in New York City. He has worked with ORBIS since 1994 and prior to that, in several hospitals in Philadelphia. He received his BS in biomedical engineering technology from Temple University in 1989.

One of ORBIS's flagship programs is an aircraft converted into a fully functional eye hospital, which travels the globe teaching eye-care professionals how to combat blindness in their countries. Ismael has traveled to more than 30 countries in Asia, Africa, Eastern Europe, South America, and the Caribbean.

Ismael has helped organize many international training workshops and capacity building programs for clinical engineers and biomedical equipment technicians. These include collaborations with ACCE, PAHO and WHO in conducting Advanced Clinical Engineering Workshops in Bangladesh, Ethiopia, and Jamaica. Ismael's current plans with ORBIS include expanding its pool of clinical engineering volunteer faculty and consultants to cover a broader range of specialties. Additionally, ORBIS will be focusing on designing capacity building programs for clinical engineering professionals in several countries in Africa.

International Clinical Engineering

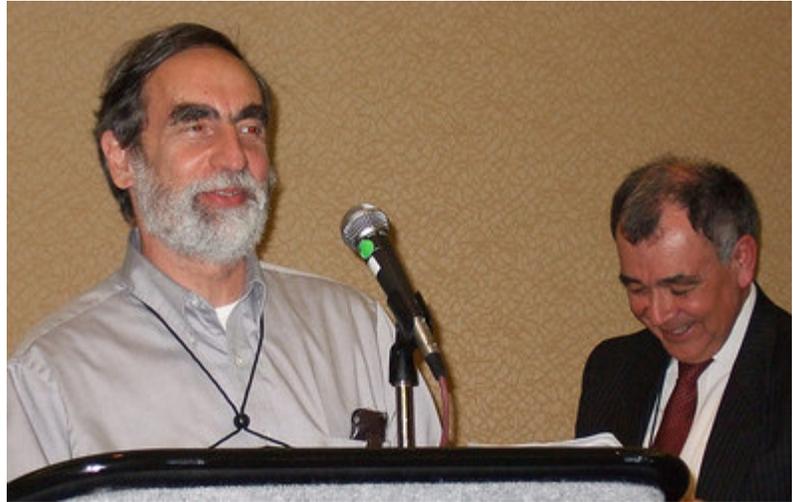
The inaugural International Award winner is **Adriana Velázquez Berumen**, for her long-term work enabling Mexican and international clinical engineering and healthcare technology management (HTM) activities resulting in improved quality of healthcare delivery in her country and beyond. Adriana Velázquez has a BS in Biomedical Engineering from Iberoamericana University in Mexico City, and an MS in Clinical Engineering (CE) from Case Western University. She has over 20 years experience in Mexico and international activities.

Adriana has been the Director General of the National Center for Health Technology Excellence (CENETEC) since 2004, reporting to the Vice Minister for Innovation and Quality, Ministry of Health Mexico (MoH) in Mexico City. She leads a group of over 40 physicians, engineers, economists, sociologists, and others whose main responsibilities include: medical equipment planning, health technology assessment (HTA), telemedicine and e-health. In 2007, CENETEC also assumed national responsibilities for development and dissemination of evidence-based clinical practice guidelines for MoH Mexico. Adriana and CENETEC have facilitated several national and regional conferences on e-health, HTA, and CE in recent years.

Previously, Adriana served seven years in Angeles Hospital in Mexico City and has done consulting both nationally and regionally in Latin America for PAHO. She is immediate Past Chair of the International Certification Commission for Clinical Engineering and Biomedical Technology. She has enhanced the process of certification in clinical engineering over the

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ACCE Honors Awardees at HIMSS



Clockwise (l-r): Dave Harrington accepts Lifetime Achievement award; Ted Cohen accepts Lifetime Achievement award from Mario Castaneda, Denise Korniewicz accepts ACCE Challenge award from Steve Grimes, and Mario; Frank Painter accepts Professional Achievement in Management award, Tobey Clark accepts Professional Achievement in Management award and driana Velazquez Berumen accepts ACCE's first International award from Steve Grimes.

Awards: International Award to Velasquez

(Continued from page 5)

last 12 years in Mexico and Latin America by leading the establishment of the Mexican CE Board of Examiners and examination process for Spanish speaking CE practitioners.

Adriana has also served in many other national and regional roles, such as president of SOMIB (the Biomedical Engineering Society of Mexico), and president of CORAL (Latin American Regional Council of Biomedical Engineering). Globally, she serves on the Board of the IFMBE Clinical Engineering Division, and recently became part of the HTAi steering committee, and was elected a member of the board of directors of INAHTA (International Network of Agencies for Health Technology Assessment). Adriana had an active participation in the activities preceding and helping to write the May 2007 World Health Organization resolution on Health Technologies WHA60/29. She has always selflessly and willingly gone the "second mile" to serve the CE and HTM professions in Mexico and all over the world.

Adriana is married to Engineer Hector Peynetti and has a twin daughter and son, Paola and Bruno, living in Mexico City.

ACCE thanks all the awardees for their work and the Advocacy committee and others who evaluated all the award nominations and made the award selections.

Tom Judd

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Student Paper Awards

The student paper award is given to an individual who is currently a student in a clinical engineering or related graduate program that wrote a paper that contributes significantly to the body of knowledge in clinical engineering. All of the student papers are posted on the ACCE web site: <http://www.accenet.org>.

First Place

The paper taking the first place award was written by **Raquel Lopez** et al, "Usability of a Diabetes Telemanagement System", Institute of Biomaterials and Biomedical Engineering, University of Toronto, Canada.

Runner-up

Second place student paper awardee is **Anthony Angelo**, for "Failure Modes and Effects Analysis of the Alaris Medley Infusion System", University of Connecticut, USA

Third Place

Third place goes to **Jayesh Malik** et al, "Steady State Visual Evoked Potential .

Tom Judd

Tom.judd@kp.org



Student paper First Place award is given to Raquel Lopez by ACCE President, Steve Grimes.

IT Collaboration continued

(Continued from page 2)

Stiefel, the chair of AAMI's Board of Directors and clinical engineering director at the University of Maryland Medical System.

Stephen Grimes, president of ACCE, agrees. "Our members and leadership recognize that CE-IT convergence and collaboration is of critical importance to the industry and its ability to deliver quality patient care. They believe this agreement provides a solid foundation on which we can work together to build a framework of programs and

resources to address the challenges of convergence."

According to Joyce Sensmeier, vice president of informatics with HIMSS, "as patient care devices take advantage of 'smart' technology and become more interoperable, IT experts and clinicians must work together to ensure that workflow issues are addressed. Together, we can define a vision of the future in health-care delivery."

For more information about this effort, contact Steve Grimes at:

Stephen.grimes@techmed.lincofs.com.

View from the Penalty Box: Court Decisions

I sincerely thank all of you who said such kind things about me entering retirement. Retirement is interesting and is taking some getting used to. Maybe when the weather gets better and I can work in the gardens I will at least remember which day of the week it is. That seems to be the major problem, right now, what day is it?

Retirement has brought other benefits, such as more time to read and listen to various opinions on what healthcare needs and where it is going. Healthcare, next to the spending on the war in my opinion, is the biggest problem facing this country and many other parts of the world.

As engineers we see many solutions to the healthcare problems and most do not involve large increases in spending but better direction to existing spending. As a healthcare professional, one of our cornerstones is that "the patient comes first". Unfortunately, to many of those regulating healthcare and supplying drugs, equipment and software, it is the profits that come first followed by the stock prices, not getting caught supplying faulty items and the patients are way down the priority list. This has to change.

Some weeks ago the US Supreme Court ruled that an individual cannot sue if the product in question was approved by the FDA, (*Riegel v. Medtronic*, 06-179). Some think that the ruling just affects devices that went through the pre-market approval process and not those that entered the market under the 510 K process, (i.e., similar to what is already on the market). How this decision will impact clinical engineers is not clear but many feel that it will slow the process of new technology entering the market as the FDA will request more details from the manufacturers. One potential plus could be that companies could no longer shield repair software from users. But that will also have to work its way through the courts, also.

In another case, the lawyers for Medtronic were fined 10 million dollars for unnecessarily prolonging the proceedings by misleading and confusing the jury with unnecessary technical and legal complexities. The judge in the case was Edward Harrington, no relation, but if he keeps ruling like that I might claim him as a relative.

Another questionable decision was the large retirement package that the president of the Massachusetts state Blue Cross received after increasing the cost of the plan by some 14%. I am not sure if it was coincidence or not but his retirement payout was 14 million. The question that jumps out is: How much good did these decisions have for patients and patient care with all the money that was spent on lawyers and executive retirement packages.

I do not want to criticize our engineering colleagues at the FDA as they work hard with their hands tied and blinders put on them by the politicians. Some politicians blame them for not inspecting drug plants off-shore for years but provide them with no funding to do so. These are the same drug companies that keep saying "buy your drugs in the US not Canada" as they make drugs in China or other countries with no inspections. If Congress does not want to fund FDA inspections, they should make the drug makers follow ISO quality standards, and perhaps, the quality will be better and cost will be lower. As a side note, that change was proposed in 1990 by the GMP advisory panel but was turned down. Maybe it is time to re-visit that process.

A new push to stop suppliers from providing gifts to potential buyers is getting a lot of press. But as you read the articles, it excludes R & D grants, consulting fees, speaking fees etc. It does still allow free drug samples so it looks like the only impact we will see is that we will have to buy our own pens and pads. A lot of press for little real gain but it looks good for some politi-

cians during the election process.

For my last point, I would like to remind everyone that this is an election year here in the US. Whichever candidate you support, look at his or her healthcare proposals to be sure that they reflect our ethics of the patient first. Then vote.

Well the grandson's team missed the championship losing 2 to 1 in overtime in the semi-final round, he still had a smile on his face and said that they played their best and that is all that can be expected of hockey players and for that matter, Clinical Engineers.

Dave Harrington

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ACCE Summary Annual Financial Statement, 2007

ACCE
Profit and Loss
January through December 2007

Ordinary Income/Expense:	
Income	
Total Earned Income	\$93,586.26
Expense	
Total Expenses	\$70,005.74
Net Ordinary Income	\$23,580.52
Other Income	\$1,156.26
Net Income	\$24,736.78

Editor's Commentary: What I learned at HIMSS

The ACCE News editor had the opportunity this year to attend HIMSS and, once again, HIMSS was huge and impressive. With more than 28,400 attendees, 942 exhibiting companies, and hundred of education sessions, including an all-day Clinical Engineering Symposium that drew 150 people who paid extra, HIMSS was a great success! I would encourage clinical engineers to put HIMSS on their regular conference attendance list, if not every year, at least every two or three years.

So, what did I learn at HIMSS this year? Here is a glance:

Wireless: Technical standards often have varying interpretations; 802.11A is the near-future for wireless clinical devices from several companies; although several companies compete in the wired and wireless infrastructure domain for hospitals, there are currently NO medical telemetry products that use the most common (Cisco) wireless infrastructure although discussions are underway to test products; and a number of improvements in the standards and technology are currently under discussion particularly in the areas of Quality of Service (QoS) and power (battery) management.

On the government front: Although there is a large amount of current pressure to decrease cost in healthcare, and to decrease government funding for healthcare (at least on a per-capita basis), there is a large positive push for a public-private partnership to increase government funding for healthcare IT. Where this will lead is an open question and will probably not be answered until after the Fall '08 election. According to its chief, Robert Kolodner, MD, there is an effort to make the Office of National Coordinator for Healthcare Information Technology (ONC), and its programs, permanent. On the regulatory front, the FDA wants to regulate data networks that carry critical clinical data. In the Federal Register the FDA posted a new standard for comment that will consider that ... "networks that carry data from medical

devices will need to be registered and carry the classification (e.g. Class 1, 2, or 3) of the most critical portion of the application/data carried by the network". Related, is a draft voluntary standard, ISO 800001, that is being "balloted" this month that requires a risk assessment of a system to include the network, whenever a data network is part of the medical device system.

Clinical Decision support systems and "alerts": Those healthcare institutions that have had EMRs long enough to collect some significant data are starting to "mine that data". As that occurs and Clinical Decision Support Systems are implemented for alerts (e.g. allergies, lab results correlated with clinical symptoms), and other warnings, researchers are starting to see many of the same problems that clinical engineers and nurses have previously reported in the ACCE Clinical Alarms initiatives. Namely, too many alerts resulting in clinicians neglecting alerts ("cry wolf" syndrome), false positives from "noisy" data, electronic equivalent of handwriting errors such as inadvertently selecting adjacent or first items on a drop down list, problems with error recovery such as the inability to backup, erase, or otherwise fix a quickly discovered error (e.g. clicked wrong box), treating the device/application rather than treating the patient, and garbage in/garbage out.

Training and Education: There is a need for technical expertise, training and education, in all areas that combine IT and clinical devices including network expertise (wireless is particularly a difficult area, just like it always has been), human factors, FMEA and other risk assessment methodologies. ACCE is working with HIMSS and AAMI to develop a "body of knowledge" for such a group or individual and if there is enough interest, perhaps a new certification program. This effort is currently called a Clinical Systems Engineer (see Steve Grimes column). There are also needs up and down the organization for introductory education and training on medical devices from the CIO level down to many of the IT professionals

(e.g. network technical staff).

Integration works. At HIMSS, there was an excellent demonstration of the ability of medical devices to send data to an EMR. This was an actual equipment demo, not just a PowerPoint presentation. A brief description of this demo is as follows: A simulated patient is taken to the ER and then from the ER, to the OR, to the ICU and then the acute care portion of the hospital. Along the way his ER vital signs, OR anesthesia and monitoring system, ventilator and ICU physiological monitor data are all sent to an EMR. The point of the demo is that this was not a single vendor or dual vendor integration solution, but each company (I think there were 8 different companies involved in this demo) provided interfaced data using the IHE Patient Care Devices (PCD) profiles and "off-the-shelf standards (e.g. HL-7), Continuity of care is improved and redundant data entry eliminated, or at least significantly reduced, as several of the devices from different companies send clinical data to the EPIC EMR flow sheets and other EPIC applications. Companies involved included: Welch Allyn, Philips, GE, Datex Ohmeda, Live Data and more). There is a need for tools and test equipment to troubleshoot issues with these integrated systems. NIST is part of this project and is developing software tools to help the vendors meet the IHE PCD profiles. There will also need to be simpler tools for the fields service, field IT and in-house IT and BMET staffs.

In conclusion, IT integration and all its related issues, offer a tremendous opportunity for clinical engineers to be involved and make a great impact on healthcare safety and efficiency improvements. ACCE is providing several participation opportunities including: group comment of the FDA and ISO proposals, education involvement (as a student and as a teacher) at HIMSS, AAMI and via teleconferences, IHE/PCD's needs for user involvement and much more. So, volunteer, your expertise is needed.

Ted Cohen

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ECRI Institute Seeks Health Devices Achievement Award Nominees

The ECRI Institute seeks nominees for its third annual Health Devices Achievement Award. The award was established in 2006 to help celebrate the 35th anniversary of ECRI's Health Devices program and, more importantly, to honor the achievements of the hospitals that support our program. The *Health Devices Achievement Award* recognizes an outstanding initiative undertaken by an ECRI Institute member healthcare facility that improves patient safety, reduces costs, or otherwise facilitates better strategic management of health technology.

Last year's winner was Texas Children's Hospital (TCH) in Houston. TCH's winning submission described its Integrated Platform for Life Safety and Tracking initiative, in which three individual projects involving the hospital's nurse call and asset tracking systems were consolidated into one. The result of the TCH effort is a common platform combining nurse call functions with the electronic tracking of equipment and staff. One of the goals of the award program is to honor our member hospitals' commitment to technology management by achieving high standards of safety, quality, and cost-effectiveness in healthcare. The TCH project was a great example of how this can be done by having multiple teams come together to collaborate on a large scale and a forward-looking initiative.

The TCH submission was led by ACCE member and former president Yadin David and his colleagues Melita Howell and Patti Rogers. When the award was first announced Yadin commented that "This recognition will enhance our ability to share our forward-looking integrated patient care technology strategy with other healthcare organizations and manufacturers, and that ultimately means that we will help improve patient care standards everywhere." Yadin and members of his team were on hand when I formally presented the award in January 2008 to

the senior executives at TCH including its President and CEO, Mark Wallace.

The ECRI Institute is now soliciting applications for the third annual *Health Devices Achievement Award*. Applicants are asked to submit a 1,000- to 2,000-word essay to ECRI Institute describing an initiative (or initiatives) undertaken at their facility that demonstrates excellence in the field of health technology management.

The deadline for submissions is Friday, May 2, 2008. Essays can be submitted to ECRI Institute either electronically or in paper form. To use our online submission form, visit

<http://www.ecri.org/hdaward>. Alternatively, essays can be submitted by e-mail communications@ecri.org, by fax (610-834-1275), or by mail (ECRI Institute, 5200 Butler Pike, Plymouth Meeting, PA 19462, USA). All communications should be sent Attention: Health Devices Achievement Award.

We hope that you will take the time to share some of the excellent work that you and your colleagues are doing to improve patient care at your institutions.

Jim Keller

jkeller@ecri.org

Bi-Lingual Equipment Management Course

Through the sponsorship of a Pan American Health and Education Foundation grant, online courses on medical equipment technology and clinical engineering have been developed in English and translated to Spanish for use in Latin America. The courses provide background material on healthcare technology management, anatomy/physiology, engineering principles and concepts, and in-depth coverage of common medical equipment. Device topics include sections on principles, application,

patient safety, problems and solutions, and maintenance. The first offering of this course in Spanish by EIA-CES was in Colombia (http://its.uvm.edu/medtech/design/EIA_online.pdf) and drew 117 students. The course will start again in Lima, Peru in July 2008. Course information on the English version starting May 19th at University of Vermont can be found at <http://its.uvm.edu/medtech/index.html>.

Tobey Clark

Tobey.Clark@ITS.UVM.EDU

Pan American Health Care Exchange

The Pan American Health Care Exchange PAHCE (www.pahce.org) meeting was again held this year in Long Beach, CA, January 28- February 1, 2008. The program, run by Christopher Druzgalski, PhD, Director of the EE Biomedical Program at California State University, Long Beach, provided two days of tutorial presentations, a day at the Medical Device Manufacturing (MDM) West exhibit halls, and two days of invited and submitted presenta-

tions and poster sessions from Latin America and other parts of the world.

Presenters included ACCE members Tom Judd - Kaiser Permanente USA, Adriana Velazquez - CENETEC Mexico, Andrei Issakov - WHO Switzerland, and Tobey Clark - U. of Vermont USA. There were English and Spanish presentations for the biomedical and clinical engineering, and clinical topics.

Tobey Clark

Tobey.Clark@ITS.UVM.EDU

ACCE Healthcare Technology Foundation Update

The following is a report from the ACCE Healthcare Technology Foundation:

Annual Meeting

The Foundation Board met at the end of February in Orlando preceding the HIMSS conference. The full day session was followed by a dinner with the ACCE board and guests from IEEE/EMBS. The Foundation Board added several new initiatives to its busy agenda, and elected new Board members including Tom Bauld and Denise Korniewicz. Denise (who received the ACCE's 2008 Challenge Award) was previously an advisory board member. A board position for the Chair of the Healthcare Technology Certification Commission is also being created which will be filled by the current chair, Caroline Campbell. Board members completing their multiple terms are Frank Painter and Elliot Sloane. Elliot will continue to serve as an advisory member, and Frank will direct several new initiatives approved by the Board. The officers of the Board remain the same for 2008.

New initiatives include international certification, education and career activities; follow-up on clinically oriented alarms studies, additional topic-specific invited forums, and other clinical environment safety issues. In addition, the Foundation will be active in monitoring the roll out of the AHRQ defined Patient Safety Organizations (PSO) with particular reference to the PSOs impact on clinical engineering and the proper role of the Foundation. Watch the Foundation's web page for further information on these new initiatives, and for your opportunity to become part of one of the working groups.

Marvin Shepherd Award

The 2008 dual winners of the Marvin Shepherd Patient Safety Award were announced at the ACCE membership meeting at HIMSS. These winners are Matthew F. Baratich and James O. Wear. Congratulations to each!

CE Excellence Award (CE²):

Several excellent applications for the first CE² award are under review. Watch for the announcement of the first winner for this award for excellence in clinical engineering through recognition of best practices in broad institutional leadership.

Patient Safety Brochures

The next patient safety brochure from the Foundation on the safe use of oxygen will be available soon. As with our previous brochure on bringing personal medical devices to the hospital, the oxygen brochure will be available in hard copy and as a download from the Foundation's website in both English and

Spanish. (<http://www.acce-htf.org/about.asp>).

Donations In Honor Of

The Foundation's initiative in accepting donations "in honor of" was kicked off by Tobey Clark's donation in honor of Alfred Jakniunas. An announcement of this donation will be sent to Al's family. Please consider this ecologically sound means of recognizing your professional colleagues.

William Hyman, ScD, PE, Secretary

secretary@acce-htf.org

Wayne Morse MSBME CCE, President

president@acce-htf.org

Three New CE Resources

Stay on top of up-to-date guidance with these 3 new AAMI resources:

1. The Electrical Safety Manual, 2008 Edition

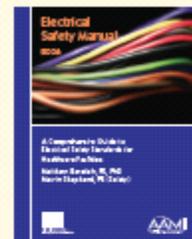
This top-selling guide contains timely information, including up-to-date standards and Joint Commission regulations. Available on CD or in print.

Order Code: ESMP (print) or ESMCD (CD).

List: \$135. AAMI members: \$85.

Buy both and save! Order code: ESMSET.

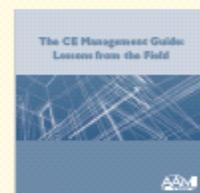
List: \$195. AAMI members: \$135.



2. The CE Management Guide: Lessons from the Field

With nearly 200 articles, selected by leaders in the field and gleaned from 10 years of AAMI publications, this CD is a practical reference guide and a valuable study tool for certification exams.

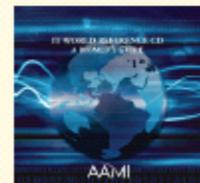
Order Code: CEMCD. List: \$135. AAMI members: \$85.



3. IT World Reference CD: A Biomed's Guide

This comprehensive CD includes more than 100 IT-related articles on topics ranging from training to telemedicine and security standards.

Order Code: ITCD. List: \$125. AAMI members: \$75.



To order your copies today, visit <http://marketplace.aami.org> or call 877-249-8226.

Source Code: PBLE34



IHE Holds Successful Showcase at HIMSS

The Patient Care Device (PCD) domain of IHE (Integrating the Healthcare Enterprise) had a successful Interoperability Showcase demonstration at the HIMSS meeting in February. Nine vendors brought 11 systems to the Showcase, including: General Electric, Philips, Draeger, Spacelabs, Welch-Allyn, B-Braun, Live-Data, Capsule, and Epic. This marked the first time that patient care device data was sent to the Electronic Health Record (EHR).

In addition to the scenario driven demonstration, the New Directions section of the display showed a glimpse of projects under development including the Rosetta Terminology Project for aligning vendor nomenclature under a common standard, real-time plug and play initiatives, and an opportunity to participate in the 2008 PCD Survey. Additional companies planning to participate next year include Hospira and OBS Medical as well as others.

PCD holds its Spring Face to Face meetings on April 21-23 in Oak Brook IL. to move forward with year 3 supplements for public comment and begin discussion of Profiles for development in Year 4. Supplements under development are Alarm Communication Management, Infusion Pump Integration, HL7 CDA (Small Data Element Exchange) and the Rosetta Project. These developments will have significant impact upon adoption of interoperability by users and vendors. For example, Plug and Play provides a significant improvement in user friendly equipment. Alarm Communication Management will provide a significant improvement in patient care, patient safety and user efficiency and effectiveness.

Additional initiatives which PCD is pursuing include:

IHE PCD is working to build a formal Memo of Understanding with the Continua Alliance for consumer-focused devices

IHE PCD is working with the ANSI-HITSP committee to support their 2008 Remote Monitoring Use Case goals.

IHE PCD is seeking more international representatives and participants for the purpose of discussing and supporting regional customizations of its Profiles as necessary.

PCD is jointly sponsored by ACCE and HIMSS (The Healthcare Information Management and Systems Society). It is a recognized domain of IHE International, the global initiative that is driving interoperability across healthcare systems. IHE is a prime contributor of Profiles to the federal HITSP (Healthcare Information Technology Standardization Panel) as well as similar processes worldwide.

Ray Zambuto
ray.zambuto@techmed.lincofs.com

**Advance Your Career
From the Comfort of Your Office**
ACCE teleconference series starts from July 17, 2008



Since 1995, ACCE has been offering audio teleconferences on current and emerging topics in clinical engineering. This year's topics include 2009 Joint Commission medical equipment standards, revisions to NFPA 99, applying Reliability Centered Maintenance (RCM) techniques to equipment maintenance, certification in clinical engineering (CCE), radiation and MRI safety, fundamentals of RF/Wireless, CE/IT Collaboration—a case study in medical device interface, and much more!

A group of leading clinical engineers will speak at the next ACCE teleconference series.

The teleconference series, which consists of 10 sessions, will be held on the third Thursday of each month at noon Eastern Standard Time. Each session will last one hour, and will include a 45 to 50 minute presentation followed by 10 to 15 minutes of Q & A.

Please visit the ACCE website at www.accenet.org for more details and registration information. Inquiries about the series should be directed to secretariat@accenet.org.

Each registrant receives a CEU certificate from the University of Arkansas for Medical Sciences for each session they participate in.

CCE Review Course, May 30, 2008 in San Jose CA

ACCE will be presenting a Clinical Engineering and CCE review course on May 30, 2008 in San Jose California. Deadline for registration is April 15.

The CCE Review Course will provide an overview of the new 2008 CCE examination topics. It will include a mock written and oral exam.

The course will provide an overview of the certification topics, help identify areas in which you need further review and help you prepare for the CCE examination.

This course is designed and presented by a group of experienced certified clinical engineers.

Course Outline:

1. Introduction to the CCE Exam
2. Technology Management
3. Service Delivery Management
4. Product Development, Testing, Evaluation, and Modification
5. Information Technology (IT)/ Telecommunications
6. Education
7. Facilities Management
8. Risk Management/Safety
9. General Management
10. Miscellaneous Clinical Engineering topics
11. Mock written exam
12. Mock oral exam

Disclaimer:

This course is prepared and offered by individuals who are not involved in the certification process or test preparation

Faculty:

Arif Subhan, MS, CCE
Senior Clinical Engineer
Masterplan, Chatsworth, CA
(Course Director)

Ted Cohen, MS, CCE
Manager, Clinical Engineering
University of California Davis Health System
Sacramento, CA

Robyn Frick, CCE
Manager, Clinical Engineering
Eastern Maine Medical Center
Bangor, ME

Frank R. Painter, MS, CCE
Director, Clinical Engineering Program
University of Connecticut
Storrs, CT

Note: This course may be cancelled if the number of attendees is less than that determined by ACCE.

Cancellation request must be received in writing at the ACCE Secretariat no later than April 15, 2008 for a refund less a cancellation fee of \$100. No refunds will be issued after April 15, 2008.

Clinical Engineering & CCE Review Course Registration Form

Please register me for the Course.

\$300 (ACCE Member) \$345 (Non Members)*

*Special ACCE Membership Offer – Attend the course and receive a 25% discount on a new ACCE Membership. You will need to complete the application form. Membership category will be based on your qualifications. See the membership section at www.accenet.org for details.

Contact Name: _____

Organization: _____

Address: _____

City, State, Zip: _____

Phone: _____

Fax: _____

E-mail: _____

Payment Information

Total Amount Enclosed: _____

___ Check Payable to: ACCE

___ Purchase Order PO#: _____

___ Credit Card CC#: _____

Exp date: _____

Fax registration form to: (480) 247-5040

or

Mail to: Alan Levenson
ACCE Secretariat
5200 Butler Pike
Plymouth Meeting, PA 19462-1298

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

CCE Review Course on CDs

Purchase the CCE Review Course on CDs. This review was taped live at a five-session, 8-hour CCE Review Course, presented by a faculty of clinical engineers who have broad experience working in hospitals, independent service organizations, consulting, government, and industry. Topics of the CCE examination are reviewed by a subject specialist and the 8 hour audio course includes Q&A from the audience, Power Point Presentations, reference list, and sample questions. Topics covered in the course are: Introduction to the CCE Exam, CE Program Management, Financial & Service Contract Management, Technical Supervision, CMMS, Technology Assessment, Product/Vendor Selection, Capital Planning, Clinical Trials Management, Building Plan Review, Building Design and Human Factors, Regulatory/QA Issues, Risk Management/Safety, Education, Product Development, Repair/Systems Thinking and other 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. Additional information is also available on the ACCE website: <http://www.accenet.org>

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ACCE Clinical Engineering Certification Study Guide

The American College of Clinical Engineering has completed 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 2008** exam. Applications and the applicant handbook can be found at www.ACCEnet.org/certification.

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

Calendar of Events

~ May 30, 2008

CCE Prep Course
San Jose, CA

- May 30 - June 3, 2008

AAMI 2008
San Jose, CA

Co-Editor Wanted

Volunteer position:
ACCE News co-editor or
assistant editor. Contact
Jim Keller, managing editor
at jkeller@ecri.org
or Ted Cohen, editor at
editor@accenet.org

ACCE

AMERICAN COLLEGE OF CLINICAL ENGINEERING

**Newsletter of the
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(610) 825-6067
<http://www.accefoundation.org>
AHTF is an independent, not-for-
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