

# ACCE News

Vol. 12, No. 5—September 2002

## American College of Clinical Engineering Election Results -- Officers 2002



**Ray Zambuto**  
President



**Izabella Gieras**  
President-Elect



**Ted Cohen**  
Vice President



**Henry Montenegro**  
Treasurer



**Ron Baumann**  
Secretary



**Joseph Skochdopole**  
Member at Large



**Barbara Maguire**  
Member at Large



**Jim Keller**  
Member at Large



**Antonio Hernández**  
Member at Large

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# ACCE News

21 Bob's Lane      Setauket, NY 11733

*American College of Clinical Engineering*

# ACCE News

## 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.

## Web - Accenet.org

### President's Message

Raymond Zambuto, [rzambuto@techmed.com](mailto:rzambuto@techmed.com)



I took a moment to catch my breath the other day. The seemingly non-stop circuit of events beginning in January with the HIMSS meeting, and concluding with ASHE in July was finally over. Then it hit me – it's not over, it's just beginning. I'm President of ACCE. How did this happen? Just 5 years ago, I wasn't even a member!

Oh, yes. Frank...Frank Painter. This is all his fault! He came to me 5 years ago and said "Hey, Ray! Why don't you get off your duff and join ACCE?" We could use some more good people." And so, I did. I came to the annual meeting and started meeting people. I learned that ACCE was the best kept secret in the industry. I learned why Frank was so passionate about it. And I learned what he meant about "good people." There are a lot of good people in ACCE, all doing what they can to make it a better world and a better world for clinical engineering.

During the last 5 years, ACCE has been vitalized as it responded on your behalf to a myriad of issues affecting the high technology side of healthcare. Our Annual Symposium has grown in content and stature to become a "must see" at the AAMI meeting. We have worked on complex issues such as wireless medical telemetry systems, HIPAA, and medical errors. Our long-standing international agreements with the WHO and PAHO have brought Advanced Clinical Engineering Workshops to hundreds of clinical engineers around the world.

In the certification arena, it was ACCE that stepped

up to the plate to ask the hard questions when the CCE program was suspended and ACCE that has paved the way to reactivate the certification process.

We have presented educational tracks at HealthTech and have a superb audio teleconference series and both internal and external recognition programs – the most recent of which honors the memory of ACCE Past President Bob Morris. It was Bob, by the way, who invited me to run for election to the Board as External Vice President.

I am humbled at the legacy that I have inherited and dedicated to upholding the traditions of professionalism that have guided ACCE since 1990. Our goal for this year is to continue to build on this strong foundation, but we need your help!

The achievements of ACCE were accomplished by people: people working on the Board and on committees; people who see a need and ask "Can ACCE tackle this?"; people like you and me; people who will make the future!

ACCE works best when everyone contributes. We have openings in virtually every corner of the organization. Check out the committees below! If you see something you'd like to do, email the chair. If you want to do something that's not listed, email me your thoughts at [president@accenet.org](mailto:president@accenet.org).

Oh, and one other thing. To everyone reading this: Do you know someone who would benefit from membership in ACCE? Send me their email address or their mailing address! Do it right now! Don't wait! Who knows, there might be another future president out there who just needs to be asked.

Ray

Committee	Chair	email
Advocacy	Brian Porras	<a href="mailto:Brian_Porras@premierinc.com">Brian_Porras@premierinc.com</a>
Annual Symposium	Ted Cohen	<a href="mailto:ted.cohen@ucdmc.ucdavis.edu">ted.cohen@ucdmc.ucdavis.edu</a>
Certification	Frank Painter	<a href="mailto:frpainter@earthlink.net">frpainter@earthlink.net</a>
Education	Jim Wear	<a href="mailto:wearjam@lm.va.gov">wearjam@lm.va.gov</a>
HIPAA	Steve Grimes	<a href="mailto:sgrimes@nycap.rr.com">sgrimes@nycap.rr.com</a>
International	Tom Judd	<a href="mailto:tom.judd@kp.org">tom.judd@kp.org</a>
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# ACCE News

## The ACCE Board

President	Raymond Zambuto
President Elect	Izabella Gieras
Vice President	Ted Cohen
Secretary	Ron Baumann
Treasurer	Henry Montenegro
Member-at-Large	Antonio Hernández
Member-at-Large	Jim Keller
Member-at-Large	Barbara Maguire
Member-at-Large	Joseph Skochdopole
Past President	Elliot Sloane

## Committee Chairpersons

AAMI Liaison	Ted Cohen
Advocacy	Brian Porras
Education	James Wear
HIPAA	Stephen L. Grimes
ICC Liaison	Frank Painter
International	Thomas Judd
Membership	Steve Grimes
Nominations	Elliot Sloane

## ACCE News

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## Membership Benefits

*The ACCE is building a strong, credible, dynamic, and flexible profession. ACCE membership gives you advantages that will enhance your career now and for many years to come by*

- Giving you access to a network of experts and peers;
- Representing your interests to legislators and regulatory agencies;
- Giving you instant access to valuable technical information via the ACCE web site and teleconferences;
- Providing up-to-date information in a rapidly changing healthcare environment via the *ACCE News*;
- Engaging in special projects such as Advanced Clinical Engineering Workshops; and
- Providing an opportunity to share your expertise with other professionals.

## ACCE Membership Benefits

- ✓ the Member
- ✓ the Profession
- ✓ and HealthCare

Invite someone you know  
to join!

Contact the ACCE Secretariat  
at  
[ACCE.Secretariat@baretich.com](mailto:ACCE.Secretariat@baretich.com)

## ACCE Welcomes New Members

The following are the new ACCE Members elected during the period June 2002 to September. Congratulations and welcome!

- **Hussein Abbas Ali**
- **Richard Crumley**
- **Ben Mannisto**

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## HIPAA Update

Stephen L. Grimes, [sgrimes@nycap.rr.com](mailto:sgrimes@nycap.rr.com)

The HIPAA Task Force has continued to make significant progress on ACCE's *HIPAA Security Risk Assessment Guide for Biomedical Technology*. A draft of the *Guide* will be available in October, 2002. The *Guide* will be the first of the Task Force's planned reports and is designed to assist clinical engineers in assessing security risks and prioritizing remediation efforts associated with medical technology. The HIPAA Task Force is in on-going discussions with ECRI by way of Jim Keller regarding ECRI's role in the project's development.

Recently, the Department of Health and Human Services announced that publication of the long delayed HIPAA Security Final Rule is now projected for October 2002.

## Perspectives from ECRI

James Keller, [jkeller@ecri.org](mailto:jkeller@ecri.org)

### JCAHO National Patient Safety Goals and Infusion Pumps

You have probably heard about a recent announcement from the Joint Commission on Accreditation of Healthcare Organizations (JCAHO) regarding the new National Patient Safety Goals developed by its Sentinel Event Advisory Group. These goals were selected to address high impact areas of patient safety including patient identification, communication among caregivers, improving safety of high-alert medications, wrong-site and wrong-patient surgery, safety of infusion pumps, and effectiveness of clinical alarms. JCAHO has provided recommendations with each of its Patient Safety Goals to help hospitals achieve the goals. And, in fact, hospitals will be inspected starting January 1, 2003 to assess how well the goals have been implemented. According to the August 2002 issue of the JCAHOnline newsletter, "failure by an organization to implement all of the recommendations or acceptable alternatives will result in a single Special Type I recommendation".

Clinical engineers can contribute to their hospital's efforts to meet any of the goals listed above. However, at minimum, they should play a key role in meeting the infusion pump- and clinical alarm-related goals. This article focuses on meeting the recommendation in the infusion pump Patient Safety Goal. JCAHO's general goal is to "improve the safety of using infusion pumps". Its recommendation for how to meet the goal is to ensure that free-flow protection is present on all general-use and patient-controlled analgesia (PCA) intravenous infusion pumps used in the organization. JCAHO has not issued specific guidance for how to meet this recommendation but plans to clarify its expectations for implementing all of its Patient Safety Goals and their associated recommendations between now and January 2003.

ECRI has provided very specific recommendations in its *Health Devices Alerts Action Items* and *Health Devices* publications regarding JCAHO's infusion pump goal and regarding free-flow protection in general. ECRI will be monitoring JCAHO's guidance on this topic and will update its recommendations as needed.

## Baretich Engineering



### Consulting Services

- Clinical Engineering
- Facilities Engineering
- JCAHO Environment of Care
- Incident Investigation
- Equipment Planning

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So what is free-flow? Free-flow, or gravity free-flow, refers to the uncontrolled delivery of an infusion to a patient when a controlled or metered delivery was intended. Free-flow of certain types of drugs, such as narcotics and heart stimulants, pose the potential for serious patient harm and are sometimes fatal. ECRI has investigated many serious incidents, including patient deaths that we determined were caused by free-flow.

In some cases, free-flow has occurred as a user error, *e.g.*, when nurses or nursing assistants were distracted or simply forgot to close tubing clamps before removing sets from pumps. Free-flow has also been attributed to tampering, such as by removal of unclamped administration sets from pumps by untrained/unauthorized personnel.

Over the years, ECRI has found that some products can protect from the type of accidents described above and others can't, at least under certain conditions. We have published a list of "safe" and "unsafe" free-flow protected products, most recently in the August 23, 2002 issue of *Health Devices Alerts Action Items*. ECRI recommends that hospitals check their inventories against our list and remove devices that do not have free flow protection. Some devices require certain dependencies for full free-flow protection, *e.g.*, use of optional free-flow protected administration sets. You will also need to verify that these dependencies, which are detailed in ECRI's August article, are being met and that things like administration sets without free-flow protection have been removed from your inventory.

Feel free to contact me ([jkeller@ecri.org](mailto:jkeller@ecri.org) or (610) 825-6000, ext. 5279) if you would like information on how to access ECRI's articles on infusion pump free-flow protection and our list of "safe" and "unsafe" free-flow protected devices. Members of ECRI's Health Devices and SELECTplus programs can view this information online at [www.ecri.org](http://www.ecri.org).

*Jim Keller is Director of ECRI's Health Devices Group, ECRI, and a Member at Large for ACCE's Board.*

## ACCE Code of Ethics

*As a member of the American College of Clinical Engineering, I subscribe to the established Code of Ethics, in that I will:*

- Strive to prevent a person from being placed at risk of injury due to dangerous or defective devices or procedures
- Accurately represent my level of responsibility, authority, experience, knowledge and education
- Reveal any conflicts of interest that may affect information provided or received
- Protect the confidentiality of information from any source
- Work toward improving the delivery of health care to all who need it
- Work toward the containment of costs by better utilization of technology
- Promote the profession of clinical engineering

## Help ACCE Spread the Word!

**The Advocacy Committee is looking for members to help promote ACCE and Clinical Engineering. Contact Brian Porras, Committee Chair at [Brian.Porras@premierinc.com](mailto:Brian.Porras@premierinc.com).**

## TELECONFERENCE CHAIRMAN WANTED

ACCE's very successful Audio Teleconference Series needs a new chairman. The chairman administers and promotes the program, determines the topics to be presented and selects the speakers.

Interested ACCE members should contact Ted Cohen for more information ([ted.cohen@ucdmc.ucdavis.edu](mailto:ted.cohen@ucdmc.ucdavis.edu)).

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## THE VIEW FROM THE PENALTY BOX

David Harrington, [davesbt@kersur.net](mailto:davesbt@kersur.net)

I have heard back from several of the ACCE members questioning why I am so intense about cost control in healthcare. Basically there are three major reasons for my being pushy.

The first is the fact that technology has taken the major hit on why healthcare costs are so high. It is the exact opposite when all the facts are in. Technology has reduced healthcare costs and can do more if properly managed. We as clinical engineers need to keep stressing that technology is not the culprit for high healthcare costs.

The second reason is that too many of the companies that provide technology to us have reduced their selling prices in such a way that the products is not always profitable with just a sale. To make a profit the company has to sell service at high dollars, consumables at high dollars and upgrades at even higher dollars. How much is that device going to cost over its useful life is a key question that we have to answer. On some units service costs are over 20% per year of the selling price. Moreover, such units often cannot be utilized for as much as six hours per month for preventive maintenance. Imagine the lost billings on this? Does the "partner" that provided the device share in the revenue loss? Why are labor and travel rates for service so high? We need to be able to provide service on these devices to keep our costs down but it is often difficult or impossible to get the necessary training and software to do our jobs. Vendor hourly service rates are higher than those charged by lawyers, higher than physicians, and higher than accountants. Incredibly the "partner" wants to charge us for answering a question over the phone. How can these charges be justified? Maybe our suppliers are using the Enron accounting techniques.

The third reason is my age. As I look towards retirement I see that the 401K has dropped in value, the pension is not as valuable as it once was, and Social Security will only cover a little of my semi-lavish life style. Then there is the cost of Medicare supplements, co-pays for office visits, drugs, and therapy and, coming soon if the insurance companies have their way, a co-pay on breathing. The saddest part of the entire process is that we sit back and let it happen. Unless we get control we will price healthcare out of the reach of everyone but the very rich and the very poor. Even the

government is starting to complain about the cost of healthcare insurance for its employees. So maybe, just maybe, the Feds are now getting serious on some changes needed to reduce healthcare costs.

One change that can be made very quickly and involves very little technology is to change the way physicians and hospitals generate their bills. A physician may have patients with up to 100 different insurance plans, each plan has its own form and procedures but all have the same basic information. If just one form is used instead of the 100's now in use, think of the savings that could be achieved there. The physician and assistants could actually talk with their patients before treating them.

Another change that will save many dollars is to stop advertising drugs to the general population. The drugs with the highest profit margins are advertised the most and people think that the purple pill will allow them to eat super hot chili without suffering or the little blue pill will regain their youthful sex drive. This is not going to happen, but just think of the savings that we could get to spend on items that would really help improve patient care and contain costs.

As clinical engineers we have to be aware that everyone must become involved in keeping costs down all throughout the equipment cycle, from design to disposal. Costs are critical if we are going to keep our great system of healthcare. If we don't watch our costs we will have rationing of services which will hurt everyone except the very rich.

One last point before my penalty is up. We, as clinical engineers, need to share information more with our fellow engineers. The ACCE Teleconference is one way to learn but think about contributing an article or letter to the *ACCE News*. Our profession needs and wants your knowledge and opinions.



## ACCE Board Meeting Highlights - August 14, 2002

### Outgoing President (Elliot Sloane)

Elliot continues discussion with HIMSS regarding ACCE/HIMSS cooperation especially with the HIMSS patient "Safety & Outcomes" group.

With the increased involvement in organizations and various activities and more available opportunities, ACCE needs to be cognizant of the guidelines or have a system in place to undertake these activities.

### Incoming President and Outgoing President – Elect (Ray Zambuto)

Ray outlined the new Board responsibility matrix as follows: Izabella - Advocacy, Membership, International, AAMI Meeting/ACCE Annual Meeting, HIPAA; Ray - Professional Relations other than AAMI Liaison, Foundation/Morris; Ted - AAMI Liaison, Annual Symposium, Teleconferences, Certification, Newsletter; Elliot - Medical Errors, Bylaws, Nominations.

Ray communicated his desire to see the promotion of the CE profession through all the ACCE activities and looks forward to an increase in the membership in the coming year.

### Vice President (Ted Cohen)

Ted discussed next year's Symposium – "Improving Healthcare Technology, Public Health Policy and Technology Management in the Next Decade: The Future of Clinical Engineering". Encompassing topics such as Surgical Robotics, Imaging, Medical Errors, and Certification, the Symposium will complement the AAMI 2003 theme, health technology and envisioning the future.

### Past President (Jennifer Ott)

All proposed candidates for ACCE Officers have been approved. The Bylaws revisions were approved by a majority of eligible voters.

Jennifer sent a letter to Colleen Morris regarding Dr Weed's acceptance of the Bob Morris Award at AAMI 2002. The ACCE Health Care Technology Foundation will hold its first meeting on August 23<sup>rd</sup> 2002.

### Treasurer (Henry Montenegro)

Each committee needs to submit their individual budget requirements.

### CCE Committee (Ted Cohen for Frank Painter)

The questions for the exam are being formulated. A winter exam date is planned. The next step is contacting NOCA.

### Membership Committee (Steve Grimes)

At the behest of the committee, the Board discussed whether there is a need to refine the criteria with respect to the contribution clinical engineers make to the clinical engineering profession and the requirements for being considered for the ACCE membership. The committee feels that Bylaws may limit its ability to consider worthy

candidates. The committee has asked Ray Zambuto and Dave Francoeur to examine this issue. The following candidates were approved for membership: Hussein Abbas Ali ~ Candidate; Richard Crumley ~ Individual; Ben Mannisto ~ Associate.

Tom Judd has provided a list of candidates for the International memberships sponsored by ORBIS.

Brian Porras, Dave Francoeur and Ricardo Silva join the committee as Ray Zambuto, Frank Painter and Steve Grimes step down.

### HIPAA Task Force (Steve Grimes)

See HIPAA Update (this newsletter, page 4)

### Education Committee (Jim Wear)

The ACCE Teleconference series is doing well under Alan Levenson. There are 22 sites participating in one or more of the teleconferences. Nine sites are participating in the entire series. The Education Committee has negotiated a contract with the Veterans Affairs for 50-70 medical centers to participate in four of the programs.

Alan is stepping down after this year and the committee is seeking a replacement to plan and market the program.

### Advocacy Committee (Brian Porras)

Brian Porras was appointed chair of the Advocacy Committee. Advocacy awards, reorganization, and student paper awards were discussed at the last meeting. The committee will embrace government relations, education relations involving BMETs and community and high schools, and public relations.

### International Committee (Tom Judd)

Tony Easty will succeed Tom Judd as chair of the International Committee. 15-20 potential candidates are interested in participating in the International Committee.

Matt Baretich and Steve Grimes are reviewing the WHO curriculum.

### Newsletter (Jim Keller)

Joe Skochdopole accepted the advertising coordinator position for the newsletter.

Elliot thanked the Board for a successful year of accomplishments.



## Workplace Profiles

### BEAUMONT SERVICES COMPANY

*Serving*

**William Beaumont Hospitals  
Royal Oak, Michigan**

Leadership and business skills—they can bring a new vitality to your engineering career, to your department and organization, and to our profession. Our intent is to describe our department's entrepreneurial spirit, which is beginning to reap results.

#### About Beaumont Hospitals and Clinics

William Beaumont Hospital (WBH) has been a leading healthcare provider in Southeastern Michigan since 1955. WBH owns 22 facilities, which include 5 million square feet, and more than 16,500 pieces of medical equipment. There are almost 11,000 full-time employees.

Last year, WBH ranked first in the United States for inpatient admissions. The main campus in Royal Oak and the satellite campus in Troy provide over 1100 beds to serve the surrounding communities. New construction is in progress at both sites. There will be 105 additional beds, 16 operating rooms, and other expanded services.

Over the years, WBH has received many honors. For example, *U.S. News & World Report* recently recognized Beaumont for its excellence in seven medical specialties. Beaumont has been included in the magazine's annual list of "Best Hospitals" since 1995.

#### The Creation of Beaumont Services Company

Like other healthcare institutions, WBH is always under pressure to reduce costs. Hospital administration and staff generated many cost-cutting solutions during the 1990s. One of the most creative ideas was implemented in 1997 – *resourcing* 300 equipment and facilities management employees. The Biomedical Engineering Department and several other hospital departments were spun off to create Beaumont Services Company (BSC).

This arrangement allows WBH to focus on its core business of healthcare *and* achieve a level of savings that maximizes



Joel Canlas

value to the hospital. As client and co-owner of BSC, Beaumont stipulates challenging financial and service performance goals, which *must* be met. In November 2002, employees will celebrate BSC's first five years in business. Because BSC's performance has exceeded Beaumont's expectations, the original agreement has been extended for three years.

#### CE's and BMET's

When Beaumont first opened its doors in the 1950's, each hospital department hired its own Biomedical Engineering Technician (BMET). Clinical Engineers (CE's) were part of the Medical Physics Department. In 1982, CE's, BMET's, and Radiation and Imaging Specialists formed an "umbrella" department named *Biomedical Engineering*. The Biomedical Engineering Department retained this structure until 1998, when it was decided that clinical engineers would form the Department of Clinical Engineering and Technology Management (CE&TM).

Although the two departments are now separate on BSC's organization chart, they collaborate closely on a variety of projects. The BMET's and imaging specialists continue to be responsible for preventive and corrective maintenance. The CE's concentrate on strategic medical technology and risk management activities. The remainder of this article describes the relatively new CE&TM Department.

#### CE's "Traditional" Services

Since the transition to BSC and the creation of the CE&TM Department, clinical engineers have continued to perform their traditional services. The value of those services to Beaumont is measured in a new way. Incentives have been put in place to encourage employees to strive for continuous service improvements.



Rani Gebara

**Acquisitions** – CE's have always helped hospital departments with medical equipment acquisition, standardization, and upgrades; now there is an opportunity to be rewarded for negotiating the best deal with a vendor or for thinking of other creative ways to fund a purchase. The CE can submit a *Cost Savings Proposal*, demonstrating how he/she helped the client save money. If the proposed

idea is approved, the amount is applied to BSC's annual cost savings goal. The CE's contribution is recognized and reinforced. Approved ideas are communicated via company-wide E-mail messages and BSC's Intranet site. Cost savings success is also taken into account at the time of the employee's annual appraisal.

**Assessments** – CE's are able to invoice some client departments for equipment evaluations and consultations. For example, the hospital's Human Investigation Committee (HIC) must obtain CE&TM's approval to use pre-FDA-approved investigational devices in clinical research studies. HIC is Beaumont's name for its Institutional Review Board. Upon completing an HIC equipment assessment, a labor cost total is submitted along with the CE's report. Only value-added activities are included in the total. It is hoped that this

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and other customer-focused strategies will build goodwill, while generating income for the department.

**Investigations** – With an increase in incident reporting, CE&TM is challenged to maintain the quality of its incident investigations and reports. A newly created database will help quantify CE&TM's contribution to the safety of patients and medical device users. Analysis of new metrics should enable CE&TM to better identify trends and improvement opportunities for the client.

**Design** – The CEs serve as medical equipment consultants to those planning the Royal Oak addition. CEs are visiting other newly constructed hospitals, researching vendors, and in some cases, designing equipment. Presently, the project involves approximately 80 hours of the department's time each month. If we were to overrun original labor cost estimates on this project (or any other), the CEs would still be committed to completing the job correctly. Accurate accounting of our time gives us a continuous opportunity to decrease unnecessary overhead and improve our labor forecasting for future projects.

**Project Management** – In addition to their technical work, the CEs often assume responsibility for team communications and project management. For example, CE&TM was instrumental in identifying the hospital's need for a new wireless telemetry monitoring system. A CE chaired the search committee, which was comprised of representatives from many Beaumont and BSC departments. When the telemetry replacement project was approved, hospital administration publicly recognized that our technical expertise helped identify the best solution for patients, our leadership facilitated teamwork, and our business strategies helped reinforce the hospital's stature as a healthcare leader.

**Outreach** – At a hospital the size of Beaumont, performing these services provides an abundance of work for five people. The CE&TM Department consists of only four engineers and the director. Yet they all share a commitment to expanding their services to clients, to BSC, and to the clinical engineering profession.

For example, several department members are officers in professional organizations at the national or state level. The CEs would also like to contribute to the knowledge base of the biomedical engineering and medical communities. They plan to increase the number of their presentations and publications in the coming year.

Department members hold master's degrees in engineering and the sciences. Three of the five are working toward MBAs. We anticipate that acquired business skills will help us achieve our department's goals.

## Service Expansion

A new department director was hired in early 2001. He has focused the department's work on several key issues: (1) Since client perceptions are crucial to our success, how can



Izabella Gieras



Salil Balar

we encourage collaborative partnerships, especially on new initiatives? (2) What process efficiencies can be realized for our client and for our department? (3) How can the department contribute to the success of BSC? The following examples highlight these new directions:

**Research** – CE&TM has driven an initiative to create an Orthopedic Implant Retrieval Analysis Center. Failed implants are now subjected to a more intensive evaluation than was previously possible. The Orthopedics Department has also asked CE&TM to provide assistance in the design of an Orthopedic Biomechanical Lab, which would be used to improve orthopedic treatments for patients.

**Regulatory Compliance** – Our director is the chairperson of two high-profile hospital committees. Under his leadership, the Safe Medical Device Act (SMDA) Committee has begun implementation of process improvements to ensure compliance with regulatory reporting requirements.

The Equipment Quality Performance Committee (EQPC) ensures compliance with safety standards for medical and non-medical equipment maintenance and usage. The EQPC will be implementing Statistical Process Control methodologies to enable a more efficient metrics review. More timely and complete information will help both committees carry out their mandates.

**Decision Support System** – The *Decision Support System* is an idea under development for BSC's continued success. It would allow hospitals that are not ready for a complete resourcing relationship to buy components of BSC's services. For example, the CE&TM Department could provide its expertise to other hospitals that want to improve clinical evaluation processes, attain efficiencies in reporting activities, or contribute to and benefit from the Implant Retrieval Analysis Center.



Mike Tanner

## Summary

For this *Workplace Profile*, we've attempted to demonstrate our growing impact on the hospital environment. We hope that this approach has allowed our department's "personality" to shine through, while communicating the professional caliber of our team.

During the past five years, department members have experienced their share of uncertainty, which often accompanies major changes in the workplace. We chose to grow professionally in response to those events. We now enjoy the satisfaction of skillfully leading others toward changes that we find exciting.

~~~~~  
*We invite dialogue with the biomedical engineering community about the "business" of Clinical Engineering. Contact Michael G. Tanner, Director, Department of Clinical Engineering & Technology Management (mtanner@bsc-rscservices.com).*

*(Thanks to Paula Stachnik, medical writer, for preparing this manuscript.)*

# ACCE News

## Calendar of Events

- 7th International Conference on the Medical Aspects of Telemedicine, Sept. 22-25, 2002, Regensburg, Germany, [congress.office@ict2002.org](mailto:congress.office@ict2002.org)
- IEEE/EMBS, October 23-26, 2002, Houston, TX, [www.embs-bmes2002.org](http://www.embs-bmes2002.org).
- BEACON Symposium, Cardiovascular Technology: Medical Devices and Tissue Engineering, Oct. 31, 2002, Hartford, CT. [jane.mussehl@mail.trincoll.edu](mailto:jane.mussehl@mail.trincoll.edu).
- 2<sup>nd</sup> European Medical & Biological Engineering Conference, Vienna, Austria, Dec. 4-8, 2002, [www.embec.org](http://www.embec.org).
- World Congress on Medical Physics and Biomedical Engineering, Sydney, Australia, August 24-29, 2003, [www.wc2003.org](http://www.wc2003.org).

### Clinical Engineer Wanted

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Degreed Clinical Engineers wanting a new career path should e-mail their resumes directly to me, David M. Dickey, CHC, President, Medical Technology Management, Inc.. Thank you!

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## 2002 ACCE EDUCATIONAL TELECONFERENCE PROGRAM

The American College of Clinical Engineering brings an exciting and educational program to you this year. By participating in audio teleconference sessions, you will be able to learn, remain up-to-date with current topics and earn CEUs from a preeminent educational institution: The University of Arkansas for Health Sciences.

The faculty is composed of recognized experts in the field and is selected to make presentations on topics that have been requested by ACCE members and previous participants. Each lecture (offered the third Thursday at 12 noon Eastern Time) lasts approximately 45 minutes and is followed by a 15 minute Q & A period.

The ACCE audio teleconference provides an opportunity to get the clinical/biomedical engineering colleagues in your area together to learn and discuss important issues while exploring local solutions. Moreover, the cost of the program can be shared by different institutions paying for each course or by pooling their funds for the series. A larger site might sponsor the course and charge single attendees from other sites.

September 19, 2002     **“Repair or Replace? The Hospital CFO’s Point of View”**—Binseng Wang, Sc.D., CCE, National Quality Director, MEDIQ/PRN, Pennsauken, NJ

October 17, 2002     **“Just how ARE you gonna deal with the JCAHO?”**— Emanuel (Manny) Furst, Ph.D., CCE, PE, Sharp HealthCare, San Diego, CA

November 21, 2002     **“Incident—Prevention with HFMEA—and Investigation with RCA: VA and ECRI Approaches”**—Bryanne Patail, BS, MLS, Biomedical Engineer, U.S. Department of Veterans Health Administration, National Center for Patient Safety, Ann Arbor, MI, and Mark E. Bruley, Vice President for Accident and Forensic Investigation, ECRI, Plymouth Meeting, PA

December 19, 2002     **“Remote Diagnostics—Where are we today?”**—David Harrington, MBA, Technology in Medicine, Holliston, MA.

January 16, 2000     **“Benchmarking: Who Needs It?”**—Yadin David, Ph.D., CCE, PE, Director, Biomedical Engineering, Texas Children’s Hospital, Houston, TX

The fee for each session is \$125 and includes CEUs from the University of Arkansas for Health Sciences for up to four attendees. Additional attendees are \$10 each.

The course fee includes phone charges, handout materials and CEU certificates.

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FAX: 973-605-8848

### Clinical Engineering Certification

***Applications are now available for those interested in becoming Certified in Clinical Engineering.***

The ACCE Clinical Engineering Certification program administered by the US Clinical Engineering Board of Examiners is now accepting applications from both new and experienced clinical engineers to take the certification exam. Exams are currently scheduled for the 1<sup>st</sup> quarter of 2003.

The ACCE Clinical Engineering Certification Program will recognize those who were previously certified under the suspended AAMI program. Applications are now available to renew your certification and become listed with the new program. If you are currently renewed under the suspended ICC / AAMI program, or if your renewal previously lapsed, you may now apply for recognition under the new program.

To obtain an application to be Certified in Clinical Engineering or, if you were previously certified, to apply for recognition and renewal under the new program, contact ACCE at: [certification@accenet.org](mailto:certification@accenet.org) or (610) 825-6067.

## **ACCE Student Paper Competition Award Winner Melissa B. Burns**

ACCE Member, Melissa Burns, was the recipient of the ACCE Student Paper Award at the ACCE Annual Meeting in Minneapolis this year. She received the award for her Master's Thesis. This work was done in the Department of Biomedical Engineering at the University of Connecticut and Hartford Hospital with ACCE Member, Eric Rosow, as thesis advisor. The abstract of the thesis follows:

### **Abstract**

#### **Development of a Wound Assessment System for Quantitative Chronic Wound Monitoring**

Wound care technology is rapidly advancing, yet the treatment of wounds often remains as much art as science. Much of the data currently collected on healing wounds is qualitative—varying by assessor and not easily tracked over time. Developers and clinical users of both cutting-edge and traditional wound care treatments and protocols need a quantitative way of measuring healing progress. Such measurements are especially important in the case of chronic wounds, which can last from several weeks to years and can result in adverse clinical outcomes.

The purpose of this thesis research was to evaluate several methods for quantitative wound assessment—wound volume, wound area, and wound coloration. By comparing various assessment parameters for the same patient population, conclusions can be drawn about which information is most useful to the clinical community and which information can be collected in a reasonable amount of time in the busy health care environment.

The patient population investigated during this study were people experiencing chronic foot or lower leg ulcers. In general, such patients also have neuropathy and diabetes, and may have significant foot deformities. The study patients could be tracked continuously over a period of months, and the results from this study are believed to be relevant to other types of chronic wounds.



Rosow and Burns