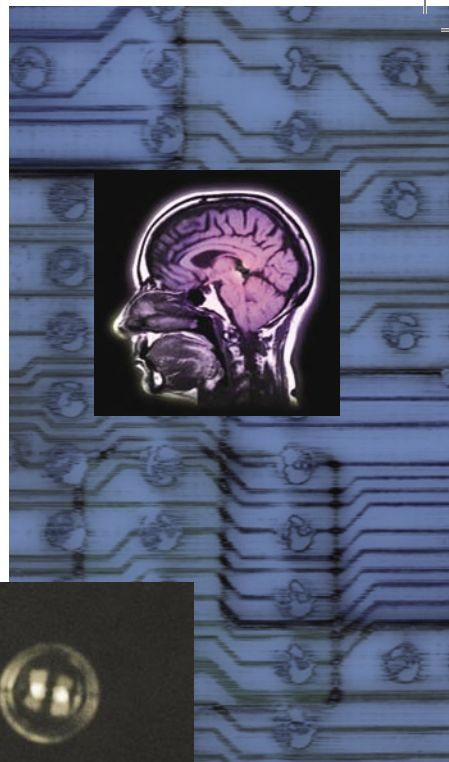


2004 / 2005

Progress Report



2004 AHTF Board:



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Committee Members:

Development Committee

Chair: Wayne Morse

Email: wayne@morsemedical.com

Purpose: Promote Foundation purpose and solicit funds

Budget and Fiscal Review Committee

Chair: Elliot Sloane

Email: ebsloane@villanova.edu

Purpose: Develop and oversee budget and financial procedures

Professional Credentials Committee

Chair: Frank Painter

Email: frpainter@earthlink.net

Purpose: Foster and advocate the advancement of professional standards of practice

Professional Practices and Education Committee

Chair: Marvin Shepherd

Email: mshepherd@devteqpub.com

Purpose: To formulate a set of professional practice guidelines specific to the activities of the clinical engineering profession and to identify and promote educational activities within the profession that assure the safe and effective application of healthcare technologies

In the short time since the American College of Clinical Engineering (ACCE) endorsed the creation of the Healthcare Technology Foundation (www.acce-htf.org), the Foundation has passed significant milestones. *Much of the first year's effort was focused on logistical issues including the establishment and registration of the Foundation as a not-for-profit, 501 (c)(3) entity. We worked hard on recruiting professional leaders to serve on the Foundation's Board. In turn, our blue ribbon members brought about the creation and adoption of the Foundation's bylaws and organized committees to meaningfully develop the Foundation's mission. The Foundation has now evolved from laying the groundwork in a theoretical sense to actually making things happen.*

The Foundation's commitment to involve users (actual or potential) and to reach out to the public will ultimately translate into better-educated consumers and safer, more efficient healthcare delivery. The Foundation will bridge the gap between theory and practice in a manner unlike that of any other organization. It will support safety initiatives in hospitals and educate the public about home-based healthcare technologies. It will become a national leader and a catalyst for the advancement of better, safer clinical technologies. It is deserving of support from not only practicing clinical engineers and the academy, but from medical technology innovators, regulators and the public — all of whom will benefit.

The strong commitment by each member of the Board to financially support the Foundation sends a clear confirmation that this Foundation merits all of our support. One hundred percent (100%) of the Board members contributed financially during the Foundation campaign. In addition, the American College of Clinical Engineering (ACCE) committed to transfer all fees from the Advanced Clinical Engineering Workshops that ACCE faculty members have been holding around the world to the Foundation. During the last annual meeting of ACCE, individual ACCE members felt that the mission of this Foundation is highly important and backed up their commitment with contributions.

Perhaps the biggest success can be noted in the Foundation's relationship with the healthcare industry. Large and small corporations — including Massimo, Nellcor, GE and Medtronic — responded kindly to the Foundation's request for support. They have sought to support specific projects, such as the integration of medical and communication devices. They have also decided to support a Clinical Engineering Excellence Award.

It is exciting to work with such a talented Board and to help steer this Foundation toward goals which seemed unreachable only a year ago. Though we have come a long way, please remember that we still need you, and we sincerely appreciate your consideration of our request for your support.

I am humbled by the enthusiastic response to our Foundation's mission as demonstrated by funds received. In the short time that passed since our inauguration, we have received over \$90,000, a major milestone toward meeting the Foundation's mission. I hope you will also choose to support us.

Message from the President of the Board

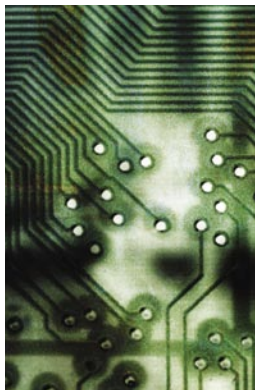
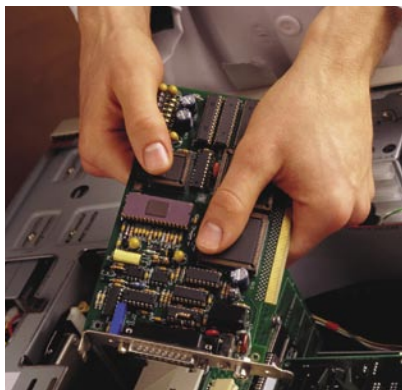


A handwritten signature in black ink that reads "Yadin David". The signature is stylized and cursive.

Yadin David EdD PE CCE
President

mission:

Improve healthcare delivery by promoting the development and application of safe and effective healthcare technologies through public awareness and global advancement of clinical engineering research, education, practice and related activities.



vision:

Founded in October 2002, the ACCE Healthcare Technology Foundation (www.acce-htf.org), was incorporated exclusively for charitable, educational and scientific purposes. It is committed to improving healthcare delivery by promoting public awareness of and the development and application of safe and effective healthcare technologies through the global advancement of clinical engineering research, education, practice and other related activities.



Public Awareness

Raising public knowledge and awareness of the safety issues associated with healthcare technologies is a major objective of the ACCE Healthcare Technology Foundation. We will implement educational outreach initiatives aimed at patients and their families, as well as professionals such as device designers, engineers, care providers and technology managers. The foundation, in cooperation with other safety groups and organizations, will sponsor a wide variety of initiatives designed to:

- Educate the public about the value and appropriate use of healthcare technologies in patient care.
- Increase awareness and understanding of safety and performance features designed into healthcare delivery systems and the patient's role as an active participant in these systems.
- Provide educational resources on available healthcare technologies, and how these technologies can assist in maintaining health and a safe and healthy lifestyle.
- Connect patients to organizations and other resources that provide information on the safe selection, use and maintenance of healthcare technologies.
- Promote better public understanding by simplifying safety issues associated with healthcare technologies.

Five topics have been selected for initial development. The topics have not been prioritized but their proposed titles are:

- Devices for the elderly
- Oxygen-enriched fires in home care
- Guide to online sites and resources that explain safety issues involving healthcare technologies
- Safety issues within the home care environment
- Safety issues associated with patient devices taken from home to medical center

Engineering Excellence Award

The Clinical Engineering Excellence (CE²) award is intended to promote excellence by evaluating and recognizing best practices in the management of medical technology.

Through the recognition of excellence in clinical engineering services this program will encourage and promote improvements in the deployment of technology throughout our healthcare delivery system.

The CE² committee will implement assessment methodology, qualification requirements, scoring guidelines, and processing criteria for CE² award applications. After reviewing applications, the committee will select a number of applicants to visit. After the Foundation selects an organization a public relations program will be developed to promote the award within the healthcare organization and within the community.

The award results will be published so that other organizations will have tools to improve their best practices in the management of medical technology.

Major Initiatives

Certification:

In 2002, the AHTF launched a clinical engineer certification by creating the Healthcare Technology Certification Commission (HTCC) and the US Board of Examiners for Clinical Engineering Certification.

The HTCC met quarterly during 2004 and the US Board of Examiners for CE Certification met bi-weekly during 2004. Both groups held their annual meetings in June 2004 at the AAMI annual meeting.

The HTCC recognized 112 individuals who were previously certified by the ICC and extended certification to them under the new program.

The HTCC certified its first three individuals in June 2004. The oral exams were given for these individuals just prior to the AAMI annual meeting.

The US Board of Examiners for CE Certification created a large number of additional test questions with the help of Professional Testing Corporation.

Twenty-eight applicants applied to take the exam in November 2004. Twenty-two took the exam and eighteen passed the exam. These individuals are being scheduled for the oral portion of the exam.

Healthcare Technology Certification Board Members:

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Vice-Chairperson, Ted Cohen

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AHTF representative, Marv Shepherd

VA representative, Hank Stankiewicz

IEEE representative, Elliott Sloane

Individual at-large, Ray Zambuto

Individual at-large, Tom Judd

Individual at-large, Antonio Hernandez

US Board of Examiners for Clinical Engineering Certification

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Richard Congdon, PE, CCE,

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Gary A. Evans, CCE

Craig Bakuzonis, PE, CCE

Tijun Wang PhD, CCE



Clinical Alarms:

Clinical alarm design, response and management are critical issues affecting patient care. Yet clinical alarm management has proven problematic. Some examples include:

- When presented with alarm sounds and asked to identify the source, anesthesiologists, OR techs, and OR nurses correctly identified the device producing the alarm only 33-54% of the time (Loeb, 1992).
- In February 2002, JCAHO issued a Sentinel Event alert related to ventilator deaths and injuries. In 65% of the cases, there was a malfunction, misuse or inadequate audible alarm. Subsequently, in 2003, improving the effectiveness of clinical alarm systems became National Patient Safety Goal #6. Although Goal #6 was dropped for hospitals in 2005, JCAHO has included clinical alarms in the Environment of Care Standards.

Healthcare provider shortages combined with the exponential growth of technology and systems increase the importance of alarm management strategies, device design, and system integration. Today's alarm systems not only include bedside and central audible and visual alarms, but have expanded to cell phones, pagers, nurse call, dashboards, tactile devices, and alarm prioritization systems. To address the issues before they become unmanageable, the

AHTF has identified management and integration of clinical alarms as a key initiative for 2005-2006. The goals for this initiative are to:

- Establish baseline data from a comprehensive research study on adverse events related to clinical alarms.
- Provide public forums – “Town Meetings” – at a variety of national patient safety, nursing, governmental, medical device industry, clinical engineering, and healthcare information technology annual meetings to stimulate discussion and gather best practices and ideas.
- Develop a website specific to Clinical Alarms Management and Integration.
- Educate the professional and lay individuals via publications and a simulation video available from the website.
- Establish a task force from a broad range of interested fields.
- Reach a consensus on alarm management and integration.
- Share the consensus findings with recommendations for healthcare facilities and the home by producing a journal quality white paper and lay article for the public.

**We Thank
Our Contributors:**

GE Medical Systems

Mallinckrodt

Nellcor

Medtronic

Datex / Ohmeda

Masimo

Frank Painter

Marv Shepherd

Wayne Morse

Elliot Sloane

Ray Zambuto

Jennifer Ott

Yadin David

Matt Baretich

Tobey Clark

Ira Tackel

Jeffrey Cooper

Robin Frick

**Please help us to take this
important work forward.**

Your contributions will enable us to improve healthcare efficiency and safety. Please mail your donation to ACCE Healthcare Technology Foundation, 5200 Butler Pike, Plymouth Meeting, PA 19462-1298. On behalf of the board we thank you for your generosity.



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