Telemedicine, Site Alert Help Facilities Serve Remote VT, NY Sites

Imagine an emergency room crew frantically working to resuscitate a six-month-old baby, while pediatric specialists more than 120 miles away watch and vocally lend assistance.

Consider the time and money saved when a renal assistant changes a dialysis blood pump in five minutes, as his manager 100 miles away watches his progress and vocally lends assistance. Best of all, the patient remains on dialysis during the process.

These scenes aren’t from the latest ER episode - they represent just a few ways telemedicine brings patient care and facilities support to remote areas of two states from Fletcher Allen Health Care, Vermont’s largest healthcare organization.

Telemedicine isn’t often used to save lives, but it is reducing patient trips to far-away physicians, providing physicians in affiliated medical offices with affirmations of some diagnoses, and giving hospital staff teleconferencing and continuing education opportunities.

Telemedicine capability is now available at two of FAHC’s four campuses and nine of its 48 satellite organizations, said Dan Ayres, vice president of Facilities Services at FAHC and NEHES member. Soon, all sites will have telemedicine capability.

The Vermont Healthcare Engineers Society held its April meeting at FAHC, hearing presentations on telemedicine and Site Alert, and touring FAHC’s main campus.

“Fletcher Allen is striving to be an integrated delivery system,” Dan said. “We’re not just a hospital any more. Telemedicine and Site Alert help us support effectively, and in some cases remotely, our satellites and campuses.”

FAHC receives no federal money to operate the telemedicine program, and NYNEX engineers provide support. The system is cost effective and easy to operate, said Michael McKnight, FAHC director of Media Services.

An extensive network of personal computers, telephone lines, and speakers lets remote FAHC sites communicate with one person, a small group, or a full auditorium.

Challenges for Facilities

The remoteness of FAHC’s sites also presents special challenges for facility maintenance as well as health care, Dan said.

When three health care organizations merged to become Fletcher Allen in 1995, Dan and his departments began to standardize everything from signage to interior decoration. Renovation projects and new construction are going on at nearby and remote sites.

“We can review construction permits over the system at our sites, and can

Continued on page 2

Francis Wilkin, Central Vermont Medical Center (Berlin), and Betsy Bianchi, Rutland (VT) Regional Medical Center, attended the VHES meeting.

Some of the VHES members meeting in FAHC's Electric Shop were (left to right) Bob LeBlanc, Rutland (VT) Regional Medical Center; Joe Kaczmarek, Central Vermont Medical Center; George Verdon, FAHC; Mark Cappello, Southwestern Vermont Medical Center (Bennington); and Dan Ayres, FAHC.

ASHE Vote Counted - New York State Is Joining Region I

Region I ASHE members will be welcoming over 300 ASHE members from New York State who will be reassigned from Region 2 to Region I.

The regional realignment vote was decisive, with more than 92 percent of the votes approving the proposal, according to Jack Gosselin, Region I director, NEHES’ liaison to ASHE, and chairman of ASHE's Bylaws/Policy/Procedures Committee. More than half of NEHES members also belong to ASHE.

ASHE (American Society for Healthcare Engineering) is a personal membership group of the American Hospital Association.

The vote makes Region I, which includes New England and foreign countries, the third largest ASHE region in total membership and fourth in number of chapters. The plan calls for a more appropriate balance in the number of chapters and members within the regions as well as more logical geographic and demographic apportionment.

The number of board members will remain at 12 with a new Region 10 developed. Section representation will be eliminated on the board and be relegated to the regional director.

“Although I am aware that a number of Region 1 members expressed concern over the implications of the realignment proposal, I believe the new structure will help support the mission of the society as a whole,” Jack said. “I also feel the plan will provide opportunities within the region to expand and enhance our educational and networking efforts by means of a larger and more diverse membership base.”

Jack is vice president of Facilities, Day Kimball Hospital (Putnam, CT).
JCAHO Gives Hospital Just 24 Hours’ Notice of Inspection

(Rick Bowen, director of Plant Operations at Wentworth-Douglass Hospital, Dover, NH, wrote this article.)

Talk about a bad start to an otherwise good day! A call was received at 8 a.m. Monday, January 6, to inform us that Inez Kennermore of the JCAHO would arrive at 8 a.m. Tuesday, January 7. This was our 24-hour notice of the random, midcycle survey.

I won’t go into all the details of what transpired next, but vice president visits, meetings, and memos were just the beginning. A schedule that the surveyor wanted to follow was then faxed.

The odyssey began promptly at 8 a.m. the next day. The proposed schedule was reviewed and the reason for the midcycle survey was explained. Apparently, the JCAHO was focusing on areas that received the most recommendations and Type 1 recommendations during 1996 surveys.

These focus areas will be changed yearly, according to the JCAHO.

Documents Were Requested

The surveyor requested the following documents: Safety Program and Minutes, Fire Drills, Sprinkler and Fire Alarm Documentation, and Generator Log.

The building tour was the first item on the schedule. Ceiling tiles near eight fire/smoke doors were removed for the surveyor’s inspection. One location had a seal around one side of the conduit only.

The surveyor explained that although it’s not currently a requirement, the JCAHO suggests we seal both sides. Ratings on doors and frames were checked and compared to the prints showing fire and smoke separations.

Nursing unit staff members were asked:
- How far would they have to go to get into another smoke compartment?
- Where is the medical gas shut off and who is authorized to shut it off?
- What action would be taken if the fire was in your smoke compartment?
- How many fire drills have you had in the last year?
- Can you tell me where the fire extinguishers and pull stations are located on your floors?

After visiting the nursing unit, 15 minutes were spent questioning the Pharmacy director. The survey focused on med carts and who had access to the Pharmacy after hours.

Safety Committee Visit Was Next

Following the building tour, the surveyor met with the Safety Committee. Each discipline was asked how its program worked and what performance indicators were used. The JCAHO will require two indicators for each discipline in 1998. The current requirement is one indicator.

The meeting with the Safety Committee ended the Environment of Care portion of the survey, 45 minutes behind schedule. The surveyor did not have a chance to perform the document review, and did not request the Statement of Conditions.

The surveyor used a laptop computer. During the exit conference, she gave a verbal presentation because the laptop would not project onto the screen.

Fortunately, our Environment of Care program did not receive any recommendations from the surveyor.

NEHES Begins Tradition of Selecting An Engineer of the Year by Nomination

The NEHES Nomination Committee needs your nomination for the organization’s first annual Engineer of the Year award.

The award grew out of President Don Garrison’s desire to recognize engineers for their contributions.

Nominees will be judged on their service to NEHES, the health care engineering profession, their institution, state chapter, and other engineers over the most recent calendar year.

NEHES members should complete the nomination form inserted in this newsletter and return by June 1 to Tom Whittaker, c/o the address at the bottom of the first page of the form.

Members of the Nomination Committee are Tom, Dick Harris, Jeff Thomas, and Mark English. The NEHES Board of Governors will vote on the committee’s recommendation for the award in September.

The Engineer of the Year will receive a plaque and cash award of $500, representing travel and lodging reimbursement at Fall Seminar, and waiver of Seminar registration and spousal fees. The winner will also be recognized at Fall Seminar.

Telemedicine

Continued from page 1

print out anything on hard copy,” said Dave Kilty, Facilities Management director. “We use it to send messages, files, and pictures to our sites.”

Facilities Relies on Site Alert

FAHC personnel now monitor plant equipment and get messages quickly with the help of Site Alert, a sophisticated alpha numeric paging system.

The system accepts messages of any length and stores data equivalent to 30 pages of text. When paged, Facilities personnel now receive e-mail messages from the central computers, rather than just a callback phone number.

“This is a great liberator of personnel,” Dave said. “You can do more with fewer resources. It’s a great tool for emergency and non-emergency purposes.”

After an initial capital investment, the system is less expensive to operate than paying an outside paging service, he said.
President’s Comments

Are You Keeping Up-to-Date With Today’s Technology?

I recently had an opportunity to do a great deal of traveling - Maine to Florida, to Washington, DC to Washington State, to Costa Rica, etc. Some of this travel was business and some was pleasure.

At any rate, I had an opportunity to observe how business people were communicating with their places of work, their homes, etc. I became convinced that many of us engineers are not keeping up with the times as far as communication devices are concerned.

Unless you have a portable laptop computer with a CD ROM and all the software needed to plug in a telephone line, talk to your office E-mail system, send and receive a fax, and print a report from your office for editing and comments, you are not up-to-date, to say nothing, of course, of being able to whip out a cellular telephone to call the hotel and ask that a shuttle be sent over or to make dinner reservations.

Engineers Need Technology to Answer Management Questions

What does all this mean to us as healthcare engineers? It is important for us to be familiar with all this technology so we can respond to hospital staff inquiries, including those of management, when we are asked to prepare our hospital infrastructure to handle all this new technology.

We all hear about the Internet and about all the information available there which includes many mail groups to answer just about any question we might need an answer to.

But how many of us know all about telemedicine, including digital radiographic systems, digital patient record systems, radio-controlled pharmacy systems, radio-controlled nurse charting systems, etc.? Not too many of us. I’m sure. So what does this have to do with us using laptops, cellular telephones, long distance pagers, faxes, etc.? It is my belief that if we are using all these new technologies that are available ourselves, we will know more about how they work and will be better equipped to respond to those infrastructure and staff questions mentioned earlier.

It’s Time to Get Connected

So if you don’t have a PC at home and are not connected to the Internet at your office, you need to think very seriously about getting connected.

As far as your NEHES organization is concerned, you can expect to hear more about the Internet, the World Wide Web, the ASHE net, and telemedicine as we strive as always to keep you up-to-date concerning our profession, with timely articles in our newsletter, with timely seminars, both one day and longer.

All this helps you be better prepared to meet the challenges you encounter as healthcare engineers.

Dick Harris is Vermont’s Engineer of the Year

Dick Harris moved to Vermont in 1993 for a new job opportunity and the chance to hunt, fish, and garden in his spare time.

He immediately joined the Vermont Hospital Engineers Society and NEHES, and continues to be one of the most active members each group has.

“They provide an excellent forum for networking,” said Dick, now VHES vice president. “I can obtain information in areas I don’t have direct knowledge of. We have a great camaraderie with our counterparts here in Vermont.”

The Massachusetts native is the director of Facilities Management at North Country Hospital (Newport), an 80-bed facility.

Vermont engineers gave Dick the award because he served NEHES and VHES as chairman of successful education programs and as an officer. They also thanked him for his support of other engineers.

Bermuda Hospital Engineer to Welcome NEHES

Neil Crane, director of Engineering at Bermuda’s 400-bed hospital, will personally greet NEHES members and spouses during opening ceremonies at Fall Seminar 1998.

“He’s a charming man,” said Tom Humphrey, one of Fall Seminar’s organizers and director of Engineering at Monadnock Hospital (Peterborough). “We had a nice conversation and he’s looking forward to meeting us.”

This is just one of the details Tom and other members of the New Hampshire Healthcare Engineers Society are working on. They report that NEHES members and vendors are enthusiastic about attending the first Seminar ever held out of the country.

The seminar will be November 8-12, 1998 at Marriott’s Castle Harbour, a five-star resort with numerous amenities. Organizers are committed to keeping the event affordable, Tom said.

Members will receive information letters in July.

Any member who doesn’t receive a letter should call Mike Buxton at Health South (Concord), (603) 226-9800. Anyone not receiving a golf tournament letter this summer call Jim Meegan, (603) 399-4912.

Welcome 18 New Members From All NE States

NEHES welcomes 18 new members this month. An introductory paragraph about each new member will be printed in the next newsletter.

New members and their affiliations are:
- Joey Bard, Northern Maine Medical Center (Fort Kent, ME),
- Debby Burgess, Exeter (NH) Health Resources,
- Edward Bussiere, Windham Community Memorial Hospital (Willimantic, CT),
- Allen Croteau, Dana Farber Cancer Institute (Boston, MA),
- Donald Croteau, Landmark Medical Center (Woonsocket, RI),
- Michael Gay, Providence Hospital (Holyoke, MA),
- James Goldsmith, Fletcher Allen Health Care (Burlington, VT),
- Dana Gray, Exeter (NH) Health Resources,
- Charles Hoffman, Frisbie Memorial Hospital (Rochester, NH),
- George Hultgren, Clinton (MA) Hospital,
- Kenneth Johnson, Worcester (MA) State Hospital,
- Daniel McIntyre, Johnson Memorial Hospital (Stafford Springs, CT),
- Philip Percy, Shriners Hospital for Children (Springfield, MA),
- Frank Provenzano, High Meadows (Hamden, CT),
- Donald Sargent, St. Luke’s Hospital (New Bedford, MA),
- Gerald Stadnicki, Mercy Hospital (Springfield, MA),
- Robert Zajac, Western Mass Hospital (Westfield, MA),
- Brian Zulkowski, Masonic Geriatric Healthcare (Wallingford, CT).
Chapter in the Spotlight

Connecticut Hospital Engineers Society

The Connecticut chapter of NEHES is so important to some charter members that they’re still helping fellow engineers 33 years after they founded the group in 1964.

Bill Doherty of Bloomfield is the chapter’s new historian. He helped the chapter organize Fall Seminar 1996 and is working on the bylaws with Larry Orkins. Carl Kallgren wrote the first chapter of CHES’ history from 1964 to 1984. All three retired several years ago, but they still attend chapter meetings and are helping newer members revitalize the group.

CHES now has 75 members, mostly facility engineers and architects. They meet every other month, rotating among member hospitals.

Jack McCarthy, Hospital for Special Care (New Britain), is president. Steve Carbery, The Greenwich Hospital (Greenwich) is vice president; Bill Zipadelli, Riverview Hospital (Middletown) is secretary; and Mark English, Hartford Hospital (Hartford) is interim treasurer.

Joe Woszczyna, Hartford Hospital, arranges educational programs.

They are grateful for the charter members’ assistance, “We’d be dead without them. They’ve helped us pull ourselves back from a void,” Jack said. “We’ve got a great slate of officers for September. Organizing Fall Seminar brought us together. We’ve had excellent educational programs, and we plan to open membership to vendors.”

According to chapter history, Warren Marble was the prime mover in getting the group started. He and Harry Swanson, now deceased, called the first meeting, and 22 hospital engineers attended.

“We were alone then,” Warren said. “When we formed the group, we could talk to each other about problems. The bosses endorsed it because they saw that we brought back valuable information.”

“I felt I could learn something from other people’s experiences,” Bill said. “I found the Society very beneficial, especially the educational programs.”

Carl Kallgren wanted to exchange information with his colleagues. “The State of Connecticut was becoming pretty rigid in their regulations. The group allowed us to communicate with one another after inspections.”

“The society was very useful,” Larry said. “We depended on each other a lot.”

An Impressive Lineup of Speakers is Set for Fall Seminar 1997 in Newport

If you want to avoid dead-end jobs, Gary Yamamoto, an internationally-known motivational speaker, can help.

If you’re coming to Fall Seminar to better understand re-engineering, ASHE President Joe Howard has information for you.

Have questions about utility de-regulation? Speakers will address that issue, too.

Ken Soscia, South County Hospital (Wakefield), and Jim Gilmore, Newport Hospital, are program co-chairs for Fall Seminar October 7-10 at the Double Tree Islander Hotel on Goat Island, Newport. The annual meeting is at the Newport Officers’ Club and a golf tournament and full spousal program are planned.

Gary Yamamoto calls his presentation, “The Future Belongs to Those Who Prepare For It.”

Other speakers are:

- William Kreykes, chief executive officer of the Lifespan network of health care institutions,
- Dominick Flarey of Higman Health Care, Inc., St. Petersburg, FL,
- Ray Moughalian of RM Associates, Inc., Methuen, MA,
- Gilbane Building Co. speakers, on fast-tracking construction projects with new technology.

Member registration packets will be mailed this summer.

What’s Up in Education!

I’d like this new section of the newsletter to list any educational opportunities that are being hosted by the various States/Chapters, and to list any seminars or continuing education opportunities having value to members of our profession.

If you have information you feel would be helpful, please contact Steve Cutter at (603) 355-2040 or by e-mail, scutter@cheshire-med.com.

Seminar – June 19: Mohammed Melek, State of Maine Chief Boiler Inspector, will speak to Maine Hospital Engineers about recent code changes. Contact Jeff Thomas, (207) 879-3574.

Continuing Education – Certificate of Achievement in Construction Supervision, approximately 160 classroom hours. Created by construction industry professionals for individuals seeking to develop and enhance supervisory skills. Classes in Concord, NH and Burlington, VT. Call American Builders and Contractors Registrar, (603) 226-4789.

Submitted by,
Steve Cutter
Education Committee chair
The Cheshire Medical Center (Keene, NH)

Technology Update

Welcome to the Cyber Corner!

The new NEHES web site is up!!!

The address for our newly-developed site is www.nehes.org. Please take the time to check it out. If you have the NHSHE site bookmarked, I will have a link to get to NEHES.

While it is still under heavy construction, the following information is available:

- Board member and board meeting information;
- Links to technical journals;
- Links to regulatory agencies (NFPA, JCAHO, OSHA, etc.).

Over the next several months, we will expand this site to include:

- Newsletter articles;
- State/chapter news;
- Fall Seminar information.

If you have ideas, comments, or questions please contact Steve Cutter by phone, (603) 355-2040; by fax, (603) 357-2905; or by e-mail, scutter@cheshire-med.com.

Submitted by,
Steve Cutter
Education Committee chair
The Cheshire Medical Center (Keene, NH)
Spring Seminar Topic
NEHES Members are Often Building Commissioners

Building commissioning is part of many NEHES members’ jobs, although they may not call it that.
Testing systems in new and renovated facilities is usually their responsibility. Many would like to the engineers and architects who prepare building and systems specifications do it instead.


“We fine tune and get the bugs out of things,” said Theron Manning, director of Engineering at Gifford Medical Center (Randolph, VT). “The engineers and contractors should be responsible for verifying that these systems work.”

Robert Lord, Plant Operations director at Parkview Memorial Hospital (Brunswick, ME), said, “Commissioning shouldn’t stop with HVAC, they should also look at fire doors and building structure.”

“This was a very timely subject,” said Don Garrison, NEHES president. “Making sure all systems are operational prior to occupying a building is critical, even if you have to do it after hours. It’s excellent training for you and your staff. If systems aren’t checked out thoroughly, they could malfunction months later after the warranty has run out.”

“Even those of us who choose not to use this method, or who might find the cost too prohibitive, still had important exposure to the concept so we can communicate with our administrators more intelligently,” said John Crowley, director of Facilities at Saints Memorial Medical Center (Lowell, MA).

Liaison Update

NEHA & NEHES May Hold Separate Spring Programs

Kurt Peterson, NEHES’ president-elect and NEHA liaison, and other board members will study the feasibility of separating the NEHES Spring Seminar from NEHA’s annual meeting.

Members’ concerns about the expense and accessibility of the spring meetings, held in Boston, have prompted the study, Kurt said. If the separation occurs, Spring Seminar’s schedule would not conflict with NEHA’s meeting.

NEHA (New England Healthcare Assembly) is an organization for senior healthcare administrators in Portsmouth, NH. The NEHES Spring Seminar has been held during the NEHA annual meeting for at least 20 years. NEHES officers had hoped to coordinate educational programs and certificate programming with NEHA, but that hasn’t happened, Kurt said.

“People aren’t satisfied with the location of NEHA programs. We could put on a program at a more central location for half the cost.”

Kurt joined NEHES six years ago and is the construction project manager at Cooley Dickinson Hospital (Northampton, MA). His chapter, Western Mass, just held a successful open house, gaining seven new members.

His duties as NEHES liaison to NEHA include reporting on NEHA activities and carrying NEHES recommendations to NEHA.
NEHES Newsletter
Dan Ayres, Editor
V.P. Facilities Services
Fletcher Allen Health Care
111 Colchester Ave.
Burlington, VT 05401

Reach Newsletter Editor
At new Phone, FAX Numbers
Dan Ayres, newsletter editor, has new phone and fax numbers at Fletcher Allen Health Care. They are: phone (802) 651-8444, fax (802) 651-8439. E-mail remains the same: dan.ayres@vtmednet.org.

ASHE CONFERENCE DATES
The ASHE annual conference will be held July 14-18 in San Antonio, Texas.
For further information contact Jack Gosselin, (860) 963-6313, ext. 2353.

NEHES Awards $2,000 Scholarship to College Junior

When Jennifer Cooper heard about the NEHES scholarship she would receive just before her birthday, she thought her friends were playing a joke on her.

The junior biomedical engineering/mechanical engineering major at Trinity College (Hartford, CT), quickly found out that the scholarship was no joke.

The scholarship couldn’t have come at a better time financially for her and her family. Jennifer works to pay tuition and has several loans. Problems with her feet have made life more stressful.

“In part because of her own experience with medical adversity, she has displayed a keen interest coupled with a high level of motivation and enthusiasm in pursuing the study of biomechanics,” said Mark English, director of Engineering at Hartford Hospital and chairman of the NEHES Scholarship Committee.

Scholarship winners are junior-year students majoring in electrical, mechanical or biomedical engineering or engineering management; have prior work experience in a healthcare setting and professional goals in the healthcare field; and show strong academic credentials, professional organization involvement, and financial need.

FREE MANIFOLD AVAILABLE
Anyone interested in acquiring a nitrogen manifold with manual transfer and two banks, free of charge, should contact Jim Goldsmith at Fletcher Allen Health Care (Burlington, VT), (802) 656-3675.

Member Recognition, NEHES Visibility Continues
Tom O’Sullivan, NEHES public relations person, has mailed 30 press releases to all newspapers serving areas where members of the NEHES board of directors live and work.

The press release lists all new officers and their affiliations, and describes the NEHES organization, said Tom, who is manager of Maintenance Operations, Baystate Medical Center (Springfield, MA).

Benchmarking Survey Results are for Sale
Fifty NEHES members completed the 1997 Healthcare Facility Benchmarking Survey compiled by Bob Loranger, Facilities director at New England Medical Center (Boston, MA).

Those members received their free copy of the survey data at Spring Seminar. Members who did not respond to the survey but would like to obtain the data should call Bob at (617) 636-5267, or write to him at New England Medical Center, 750 Washington St., Boston, MA 02111. Cost of the survey is $20.

The next survey will be conducted in three years.
The New England Healthcare Engineers’ Society Inc.

*Education Committee Survey*

As we strive to assist our membership meet the challenges of the next century, we are once again reminded that it is *education* that is the basis of our Society. Our goal is to provide quality, relevant and timely educational material in a format that meets the ever changing needs of our membership. Please help us by providing some basic feedback...

1. What methods of obtaining educational information do you find most effective?
   *(please list your top three choices in order)*

   — Chapter Meetings
   — Seminars
   — Videos
   — Magazines
   — Sales Engineers
   — Trade Shows
   — Internet
   Other ______________________

2. How far would you travel to attend a 1 day seminar? ______________________

3. Please list three educational topics that you would be most interested in.

   1. __________________________________________
   2. __________________________________________
   3. __________________________________________

3. What different things could NEHES be doing to better promote continuing education?

   __________________________________________
   __________________________________________
   __________________________________________

4. Do you currently have access to the Internet? _____ Yes _____ No

5. Do you have plans to gain Internet access in the next year? _____ Yes _____ No

Please fax back to:

*Steve Cutter*

*Director of Engineering Services*

*The Cheshire Medical Center*

*580 Court St., Keene, NH*

*Fax - (603)-357-2905*

*Please see other side*
Education Group Needs Your Input to Plan Programs

New members most often say they joined NEHES to receive education about topics relevant to their professions.

The NEHES Education Committee, headed by Steve Cutter, wants to know what educational needs all NEHES members have. The committee requests that all members complete the one-page survey in this newsletter as soon as possible and fax back to Steve.

“We are seeking more information about our membership’s educational needs and preferences to help us plan future programs,” Steve said.