



The newsletter for the
East Tennessee
Biomedical Association



ewsletter

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**Membership
Meeting**
March 18, 2003
DTV

Volume 10
No. 1
March 2003

President's Corner

James Gregg



During our last meeting we elected a new board of officer's and this is my last opportunity to write this corner article. I join you in welcoming the new board and ask your support of their efforts during the coming year. They have some fresh ideas and incentives planned.

Serving as your president this last year has been a very interesting experience for me. Serving on the board has been a learning opportunity, and I would encourage everyone to serve at least once. I've enjoyed the meetings and the great presentations, but mostly I appreciated the chance to work closely with other members of our association and learn from them.

This newsletter is one of the important education and information venues of the association and I would like to use this last corner article to challenge every member to make it better. I would like to ask every member to submit one or more articles for publication in a future edition of the newsletter. The subject/content of the articles can be anything of general interest to biomed; new technologies, an educational or in-service experience, knowledge or experience with a particular equipment or procedure, troubleshooting or management hints, a summary of what's going on at your facility, events of interest, or any number of other things. Submit a paragraph or two for publication.

Don't forget to renew your membership. See you at the March 18th meeting!

Medical Telemetry Monitoring System Interference

Charles Verzi

Beginning October 16, 2003, the Federal Communication Commission (FCC) will lift its freeze on the licensing of high power mobile radio transmitters that operate in the same frequency range as many medical telemetry monitoring systems. Market analysts predict that, with the lifting of the freeze, there will be a flood of licenses granted for new portable radio equipment. This licensed operation may cause random interference with your medical telemetry monitoring system. With the emergence of many digital TV (DTV) stations nationwide, the attention of hospitals has mostly been directed towards interference from DTV. However, the lift of the freeze on the licensing of any devices operating within the 460-470 MHz band will cause even wider potential for random interference. Interference can cause loss of patient signals, resulting in, but not limited to:

- Lapses in patient monitoring
- Missed alarms
- Unanticipated patient outcomes
- Potentially missed life-threatening events

Recommendation:

Assess your telemetry equipment to determine if it is at risk for interference when the freeze is lifted this Year. See the following website for additional details.

<http://www.hospitalconnect.com/ashe/currentevent/wmts.html>

ETBA Web Page Updated

Randy Bueckman

A new 2003 web interface has been developed. This is a total rewrite of our web site. The initial start-up page has a moving GIF file that displays hospitals of current members. If you have a dial-up connection, the first visit to the site will be somewhat slow. After the first visit, your browser will save the gif on your machine and it will run much faster. Visit www.etbiomed.org to see it in action! Some of the changes, besides the

introductory page, are:

- An ETBA icon displayed in the address bar.
- A new menu interface
- A new Members Only area
- A new Members Data Interface

Contact me rbueckman@yahoo.com for the 2003 Members Only access point, user name and password. Remember, you must be a member to receive this information!

Training Near-By:

Olympus will be providing a couple of training opportunities in Nashville. The cost for each day is \$495.00 per person. Each class starts at 9:00 AM and runs until 4:00 PM.

- March 11, 2003, they are offering a single day course on their EVIS system. The course title is "EVIS System Setup and Support" with the description given as "Master the basics of the Endoscopic Video Information System."
- March 12, 2003, they are offering a single day course on their Image Manager Computer System. The course title is "Introduction to Image Manager Computer System" with the description being "Understand proper setup, configuration, basic maintenance and troubleshooting of the Image Manager Computer System."

(If you know of a training opportunity near by, please email me - rbueckman@yahoo.com with the information as soon as possible! If it is not timely for the newsletter, I will send an email to the ETBA List Server with the information so that the members will get it in a timely manner.)

Call for Information

As always, we are looking for what you would like to see, hear and learn!

From the Web Committee: We would like to know what you would like to see added / modified / or deleted from the web site. What will improve the look of ETBA to the world? How can we improve what others see when they get their first impression of ETBA?

From the Newsletter Editor: James has already challenged each of us to write an article for the newsletter. If all that is keeping you from publishing your thoughts is a perceived lack of

writing skills, don't let that stop you! My wife (a.k.a. The Slasher) hacks apart everything I write. The improvements are astonishing! She will be glad to do the same for you!

From the Program Director: To provide the best technical presentations at every membership meeting, I need to know what you would like to see and hear. I know what I like to see and hear, but that does not necessarily translate into what would be best or of most interest to the majority of the membership. Contact me with your suggestions and get what you want at every meeting!

Don't hesitate! Contact us now before someone else beats you to it!!

Presidents Corner

Charles Verzi

Charles is our president elect for 2003. He has served in many capacities for ETBA over the years. This past year, he served as our secretary.

We are going to kick off the 2003 year with a bang. Over the last few months, the ETBA board has been discussing our organization's dwindling membership. We have tried to tackle different issues and are working on several improvements. First, we are going back to a paper newsletter. One copy will be sent to all hospitals in the region. The membership will still be receiving the electronic version. We hope that this will reach out to our long lost comrades so they will find their way home.

At the March meeting we will have some door prizes (shirts, hats, and all kind of goodies). Also, we are going to encourage your attendance for the year by giving away a palm device. The way this will work is that once you join, or renew, we will put your name in a "hat." Each meeting that you attend, your name will be added again. So, as you can see, the more meetings you attend throughout the year, the better your odds will be to win the device. We will draw for the palm device at the December 2003 meeting. I encourage all to attend the March meeting so you will have the best chance to win!

I would like to thank our outgoing officers for their work and input over the last year. Rob Goodwin, Shannon Dingus and Joe Breeding for their service. James Gregg

will stay as our Chair for the coming year. It was nice to have new blood and we hope to continue the trend. I especially would like to express my appreciation to Joe Breeding for his dedication. He served as President and Chair the last two years and never missed a beat. He encouraged us and kept us on track. His change of position, and subsequent move to Virginia, coupled with long drives after work to attend meetings, showed that dedication is a word best applied to people that want to see what they have committed to succeed.

Joe Breeding has been called into active service for our country.

New Test Helps Rule out Heart Attacks

Randy Bueckman

Reuters News Agency recently reported that a new blood test can help doctors rule out a heart attack in cases of severe chest pain. It is estimated that about 22% of patients that show up in emergency rooms with heart attack symptoms actually have had a heart attack. The FDA approved the test on Friday, February 14, 2003.

The test measures modified albumin - a protein alteration. Modified albumin rises in heart attack patients. A negative test increases the likelihood it is not a heart attack.

The FDA warned doctors not to rely on the new test alone but to combine the test with an electrocardiogram and another blood test for troponin already used for diagnosis. Troponin is a protein found in the blood after a heart attack.

The combination of all three tests increase the accuracy of heart attack diagnosis to 70%. This is an improvement from 50% accuracy with the electrocardiogram and troponin test combination. The modified albumin test has been available in Canada and Europe for some time.

2003 National Patient Safety Goals

Beginning Jan. 1, 2003, all JCAHO accredited health care organizations will be surveyed for implementation of the following recommendations—or acceptable alternatives—as appropriate to the services the organization provides. Alternatives must be at least as effective as the published recommendations in achieving the goals. Failure by an organization to implement any of the applicable recommendations (or an acceptable alternative) will result in a special Type I recommendation. Organizations are made aware of the requirements to meet the NPSG-related recommendations in the Accreditation Participation Requirements in the accreditation manual.

- 1. Improve the accuracy of patient identification.**
2. Improve the effectiveness of communication among caregivers.
- 3. Improve the safety of using high-alert medications.**
- 4. Eliminate wrong-site, wrong-patient, wrong-procedure surgery.**
- 5. Improve the safety of using infusion pumps.**
 - Ensure free-flow protection on all general-use and PCA (patient controlled analgesia) intravenous infusion pumps used in the organization.
6. Improve the effectiveness of clinical alarm systems.
 - a. Implement regular preventive maintenance and testing of alarm systems.
 - b. Assure that alarms are activated with appropriate settings and are sufficiently audible with respect to distances and competing noise within the unit.

Goals 5 and 6 are sure to have the most impact on the Biomedical profession. Goal 5 should be easy for all of us to address. A general definition of free-flow is the movement of solution to the patient that is uncontrolled. This is more of an attribute to the administration set than it is of the pump. To test for free flow protection, turn the power off with the infusion set primed and loaded in the device. With all tubing clamps open and the fluid container as high above the device as the tubing will allow, verify that no fluid flows out of the set as it hangs straight down from the device. Then remove the set from the device (tubing clamps still open) and again verify that no fluid flows out of the set.

Goal 6 is a little more complicated to address. All of your preventative maintenance procedures should include specific checks for the testing of alarms. Make sure you have adequate documentation that the alarms were tested. This should be done by the protocols set forth in your EOC guidelines for medical equipment management. Section B of this goal is oriented to the user and design of the facility. Are the users setting appropriate alarms? Are they paying attention to these alarms? Are there too many distractions within a work area that causes alarms to be ignored or missed? And does the physical structure of the unit permit proper monitoring of these alarms? A good example is a step down unit that uses ventilators in patient rooms. If the room is located away from where the normal staff has the ability to hear and respond to an alarm then you may want to rethink the design or implement devices that will alert the staff more adequately.

We, as a community that supports safety, should embrace these goals.

- Charles Verzi

Flat Screen Surface-Conduction Electron-Emitter Display (SED)

Randy Bueckman

The SED consists of two glass plates separated by a vacuum. Electron emitters are mounted on the back plate. The front plate is coated with a fluorescent substance. Both glass plates are electrically charged causing the electrons to move from the emitters to strike the fluorescent substance. Canon and Toshiba have been working together to develop the technology.

Canon has used an ink-jet printing process to coat the glass plate greatly reducing the manufacturing costs. SEDs require no deflection of the electron beam. Operating power is approximately 50% of a CRT and 33% of plasma displays of comparable size. Brightness and contrast is said to be equal to CRTs.

See the Members' Only section of the ETBA website for more details and a graphic representation of this emerging technology.

The 2003 ETBA officers:

Board Chairman - James Gregg
President - Charles Verzi
Vice President - Larry Morton
Secretary - William Teilhet
Treasurer - Mack Webster
Program Director - Scott Macfarland
Newsletter Editor - Randy Bueckman

Treasurer's Report

Mack Webster

Balance 3/1/2003 \$7,919.31

Inflows:

Regular Membership 260.00

Corporate Membership 0.00

Student Membership 10.00

Outflows:

Website Domain Renewal -70.00

Website ISP Fee -100.00

Balance 2/21/2003 \$8,019.31

Behind the Numbers

Mack Webster

There may be some question about the outflows represented in the Treasurer's Report, so I thought I would give some explanation of the website costs.

ETBA has its own domain registered. That means that when you type in the www.etbiomed.org into your web browser address bar, you are taken directly to the ETBA web site. There is a cost to registering that domain. The cost you see in the treasurer's report to the left, is a renewal cost for three (3) years.

ETBA does not own a web server (a computer that is always connected to the Internet running web server software). Our web-pages are on a computer operated by an ISP (Internet Service Provider). The cost per month for hosting our website is \$10.00. The provider we use discounts its services if we pay an annual amount instead of a monthly bill. So, the yearly charge is \$100.00 instead of \$120.00. Our provider is Esper Systems in Knoxville and their Internet address is www.esper.com.

If you are wondering whether the website is worth the cost, let me give you a typical month's traffic report. The first column gives overall statistics. The second column gives the days of the week when we see most hits. The third column indicates the hours the site is accessed most.

Successful requests: 3,429
Distinct files requested: 153
Distinct hosts served: 351

day: reqs: pages:
Mon: 931: 110:
Fri: 566: 97:

hour: reqs: pages:
16: 385: 50:
10: 184: 45:

Digital Television (DTV)

The Federal Communications Commission (FCC) has determined that “all analog television licensees are expected to make the transition from analog to digital transmission by December 31, 2006.” This means your hospital’s current television sets will no longer be able to receive television signals after that date. Why? Because television stations will no longer be transmitting an analog signal. The FCC has made provisions for those who do not wish to replace their television sets. “Consumers who wish to keep their existing sets can purchase converters that will allow them to view digital programs on their current sets.”

FCC -

“Consumers . . . can purchase converters that will allow them to view digital programs on their current sets.”

At the next ETBA Membership Meeting we will be presented with the technology changes from analog to digital television. The next meeting will be Tuesday March 18, 2003 at East Tennessee Children’s Hospital in Knoxville. Go to the ETBA website for more details. Come find out how the radical change in television format and transmission will effect you and your hospital!

Directions

From Interstate 40:

Take 17th Street Exit and turn right on 17th Street.
Cross over the top of the hill and turn right on Clinch Avenue
Go three blocks and Children's Hospital is on the left
Koppel Plaza is on the corner of Clinch Avenue and 21st Street
The Meschendorf Room is one floor up from street level.
See <http://www.etch.com/directions.cfm> for maps.



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Inside:

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hospital?