NCBA News

November 2003 The Newsletter of the North Carolina Biomedical Association Vol. 23, No. 6

Helen Jones, CBET
NCBA President

Inside This Issue:

President's Forum

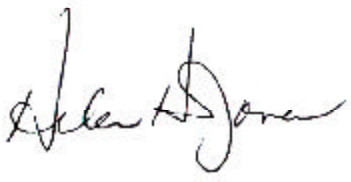
It's the North Carolina Biomedical Association's 25th year of existence. It's a normal time for retrospection and sentences that start with the words "remember when…" but what about our future as a profession?

One of the most common phrases I hear around my shop is "never a dull moment" and that atmosphere of expecting the unexpected is exactly what keeps my interest peaked year after year in this field. That readiness to meet the unexpected is a component of our business that starts from the moment we start the evaluation process on a new piece of equipment. While we listen to a salesman's presentation, biomedical staff tends to run through a list of concerns about the equipment being demoed that constitutes our own customized background check. "How does it do that?" "What can the clinical staff do to make it stop doing that?" "We're going to get lots of calls on this." "That little clamp on the side will snap off first thing." "Look at how it mounts." "It's flimsy." "Who came up with that color?" (Biomeds sound like picky souls who may be closely related in temperament to art critics in our inability to be pleased.)

Are we hard-to-please pessimistic fanatics or experienced realists? I tend to go with the option of us being a perpetually curious breed. Our natural tendency to poke, prod and ponder the workings of the equipment around us is what led us to choose this profession in the first place. We were the children who, when left to our own devices, dismantled our parents' toaster and one toaster wasn't enough because the next toaster might be just different enough to be interesting.

The next time you are in a technical training class observe how nervous the instructor looks when begging the class to please refrain taking the equipment apart until instructed to do so. (They know us.) The curious child hidden within the biomed is just itching to break into this brand new and improved "toaster" because we want to learn about it.

What does the future hold for our field? Faster and smaller, bigger and better equipment? Probably. But it will always hold the chance for us to learn more and that will satisfy our curious natures.



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NCBA News is an information service of the North Carolina Biomedical Association (NCBA). It has a distribution of about 500 and is published six (6) times per year. Articles and ads are due on or before the first day of odd numbered months. The newsletter is mailed on or about the 15th day of the odd numbered months.

YOUR HELP IS NEEDED!!! Articles of interest to our readers are constantly needed and frequently in short supply. If you have written any articles that may be of interest to our readers, submit it to Newsletter Editor, Glenn Scales, at editor@ncbiomedassoc.com.

2003 Standing Committees

Rules and Bylaws
Helen Jones (Chair), Mark Renfroe, Glenn Scales

Nominating Committee:
Sam Wright (Chair), Helen Jones, John Noblitt

Finance Committee:
Linda Leitch (Chair), Dale Allman, Charles Worrell

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Christina Fleming(Chair), Obie Godley, Mark Renfroe

Education Committee:
Dan Harrison (Chair), Boyd Campbell, Linda Leitch, Sally Goebel, John Noblitt

Apprenticeship:
Helen Jones (Chair)

2002 Special Committees

Newsletter Committee:
Glenn Scales (Chair), Boyd Campbell, Sally Goebel, Dan Harrison

Scholarship Committee:
Helen Jones(Chair), Dale Allman, Christina Fleming, Linda Leitch

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Mark Renfroe (Chair), Boyd Campbell, John Noblitt, Charles Worrell

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Helen Jones (Chair), Dan Harrison, John Noblitt, Sam Wright

Internet Committee:
Glenn Scales(Chair), Dale Allman, Mike Howell

Professional of the Year:
Helen Jones (Chair), Dale Allman, Dan Harrison, Linda Leitch, Sam Wright

Historian:
Glenn Scales (Chair), Obie Godley, Charles Worrell

New Technology Management Council Proposed

Earlier this year, AAMI conducted a study of its technology management members to determine their perceptions about AAMI in general; existing and new benefits; and current and potential ways that technology managers could best interact with AAMI, other members, and the health care community. (The results of this study are posted at http://www.aami.org/resources/BMET/news.html.)

This segment of the membership includes BMETs, clinical engineers, and other technical professionals who provide management and support services related to medical technology.

As a result of the study and the perceptions of AAMI staff and leadership that new services were needed to be responsive to the needs of technology managers, a 15-member BMET Task Force was created to review the study results and develop recommendations on existing and new services.

The BMET Task Force has completed its work and has made a number of recommendations, including a recommendation for the creation of a new Council and Technical Management Executive Committee that will provide a more focused voice for technology managers.

The Council and its Executive Committee would work to increase the recognition of technology managers and their important role in health care, serve as a focal point for formulating AAMI policies and programs for technology managers, assist staff and the AAMI Board with the development of strategic and business plans, and work to optimize communications between this segment of the membership and other members and the health care community.

While technology managers now serve on a number of committees, their viewpoints are focused on specific programs. By contrast, the Council would provide the clear focus necessary to enhance the recognition and services that technology managers need and deserve.

The AAMI Board of Directors will review this plan in November. The plan contemplates the creation of the TM Executive Committee and Council early in 2004. The Executive Committee will consist of five AAMI members. The Council will consist of up to 50 members from all categories of the AAMI membership: Individual, Institutional, Corporate, Local and State Biomedical Organization, and Student.

The BMET Task Force and AAMI staff have outlined a number of benefits that will be enhanced or developed to better serve this segment of the membership, including advocacy efforts to increase recognition and support; new publications and educational activities; links with local biomedical societies and their programs; and market research and benchmarking on career issues such as compensation, fringe benefits, and work responsibilities. A compensation study was recently conducted and the results will be published in the November-December issue of AAMI's peer-reviewed journal, *Biomedical Instrumentation & Technology (BI&T.)*

If the AAMI Board approves this proposal in November, the Task Force plan and details of implementation will be available on the AAMI website and in its publications. For questions or comments about this plan, contact Steve Campbell at scampbell@aami.org.

NCBA News is accepting advertising that relates to biomedical equipment and of interest to our readers. Suggested subjects are: Positions Desired, Positions Available, Biomedical Equipment Wanted or For Sale (New or Used), or Announcements of Educational Opportunities or Service Schools in the area.

Advertising is open to all individuals, hospitals, and companies. The decision to carry a particular ad or classified will be the decision of the Editor with support of the NCBA Board. Either jpeg or tiff files of the actual size ads is required. **Corporate Members please remember what free advertisement your membership allows.** Please contact the Newsletter Editor for other pricing.

Prepayment of all advertising is required.

Classified Advertising

Except "Position Wanted" notices by members (one ad per year – limit 50 words – no charge) the following ad rates apply:

Full Page	$200.00
Half Page	$100.00
Quarter Page	$50.00

If the ad is a single page to be included as an insert, the advertiser will any pay all additional printing and handling costs. Placement of non-member ads is on a "space available basis. Advertising that is to be printed in color will include all additional costs to prepare and insert the color page.

Dollars and Sense
By Linda Leitch, NCBA Treasurer

Account balances as of 11/12/2003:

Checking:		$59,482.21
CD's:	XX205	$25,044.66
	XX257	$24,087.62
Scholarships:	Eddie Whisnant	$602.32
	Norm Reeves	$602.32
Asset Liability (tax)		$2,125.00

(Income highlights)

Corporate Memberships	$22,600.00
Symposium registration (individuals)	$5,525.00
Golf registration	2,810.00
Symposium donations	$6,500.00
Table sponsorships	$1,300.00
Golf Hole sponsorships	$800.00

(Expense highlights)

Newsletter	$1,003.61
Postage	$1,670.85
Taxes	$1,884.60

Netech Releases New Devices

Netech has released several new products lately. You can get additional details and specifications at their web site www.gonetech.com/

UniMano is a universal Pressure, Vacuum and Temperature meter designed for very precise measurements of pressure, vacuum and temperature. It offers more features than any other pressure/ temperature meter in the market.

UniMano is available in 8 different Models- from pressure ranges 02 PSI to 200 PSI in Gauge and Absolute with temperature in YSI 700 or K/J types.

The EXPMT 2000 has evolved from the best selling EXPMT 100 pacer analyzer. The EXPMT 2000 has a new look, new features, new controls, and new display that combine to make it the easiest to use and the most comprehensive pacer analyzer available.

The EXPMT 2000 will test and verify all the functions of any external pacemaker - transvenous, transcutaneous, and A-V.

Measurements are simultaneously presented on a large LCD display. The standard RS 232 serial port allows for printing or storage on a Palm Pilot.

The LKG 610 is a hand-held, microprocessor based Electrical Safety Analyzer designed to test any medical equipment.

The full function tester has 10 leads that accept snaps and any post. Tests are quickly and easily performed when the appropriate key is pushed. Measurement results are displayed on the large LCD and measurement units are clearly indicated by an LED. Large switches change polarity, open and close neutral, and lift the ground.

In addition to the standard electrical safety tests, the LKG 610 makes both lead ISO and point-to-point measurements. Calibrated test points ensure accuracy and repeatability. Either the AAMI or the IEC601 test load may be selected. The fuse is accessible.

The LKG 610 provides the best combination of features, performance, and value of any portable electrical safety analyzer.

Vendors Rush to Sign Up for the 2003 Symposium & Expo

At the time this Newsletter was sent to the printers, we had a total of 76 vendors already signed up for the 2003 Symposium and Expo and of those, seven had double booths. This has been an extraordinary year for the NCBA and thanks to the generosity of several vendors, this will be highly memorable for those of you attending. If you haven't done so already, send in your Symposium registration form today. This is a Sympsoium that you definitely don't want to miss.

A.A.M.I.
Accuserve, Inc.
Alaris Medical Systems
Alco Sales & Service
Alpha Source
American IV Products
ARAMARK CTS
Baxter Healthcare
B. Braun Medical
BC Group International
Battery Clinic
Beta Biomedical
Caldwell Community College
CF Medical
ConMed, Inc.
Curbell Electronics
Dale Technology
Datascope
Digitec Medical Service
Dräger Medical
DITEC, Inc.
Erbe USA, Inc.
Express Systems & Parts Network
GE Medical Systems
GE Med Systems - IT Cardiology
GE Med Systems - IT Corometrics
GE Med Systems - IT Critikon
GE Med Systems - IT Monitoring
Healthtech Publishing (24X&7)
Hill Rom
Hospital Communications
Imaging Associates
Intermed, Inc.
Interpower Products
Intratek Corp.
J&J Imaging Solutions
MD Publishing, Inc.
MedEquip Biomedical
Medex, Inc.
MedFilters
Medtronic Physio-Control
Mercury Medical
MET Labs
Metron US
Modern Biomedical & Imaging
Modern X-Ray Solutions (MXS)
MTS - DELFT
Netech Corp.
North American Imaging
Northfield Medical
Parts Port, Inc.
Parts Source
Pentax Precision Inst.
Philips Medical Systems
Pilot Medical Products
Puritan Bennett
Rieter Electronic Services
R & D Batteries
ReMedPar
Replacement Parts Industries
Respironics
RSTI, Inc.
Samaritan's Purse
Scale-Tronix
Scope Exchange
Sonora Medical Systems
Southeast Laser Systems
Spacelabs Medical, Inc.
Spectrum Technologies
Stanly Community College
St. Croix System, Inc.
Systems Electronics
Universal Hospital Services
US Medical Systems
Valleylab, Inc.
Welch Allyn
Zoll Medical

Round Table Discussion of Patient Safety Goal # 6

JCAHO's Patient Safety Goal #6 was designed to improve the effectiveness of Clinical Alarm Systems by:

> Implementing regular preventative maintenance and testing alarm systems;
>
> Assuring that alarms are activated with appropriate settings and are sufficiently audible with respect to distance and competing noises within the unit.

The purpose of Patient Safety Goal #6 is to reduce the deaths and the injuries related to alarms. In 2002, JCAHO Sentinel Event Alert reported 23 ventilator deaths and injuries. Out of those 23, 65% of those deaths and injuries were directly related to alarms. It makes one wonder how many near misses were not reported?

There are two prominent kinds of alarms in a healthcare facility: clinical alarms and self-actuating alarms.

> A clinical alarm is an alarm triggered by physical or physiologic monitoring with equipment such as ventilators or respirators.
>
> A self-actuated alarm is an alarm that has to be physically activated such as a bathroom panic button or an elopement /abduction button.

Recently, representatives from six medical facilities met for an informal round table discussion on JCAHO's Patient Safety Goal #6. The participating medical facilities included: Catawba Valley Medical Center of Hickory, Wake Forest Baptist Medical Center of Winston-Salem, Wilkes Regional Medical Center of Wilkesboro, Pardee Hospital of Henderson, Moses-Cone of Greensboro, and Lincoln Medical Center of Lincolnton. The group discussed many of the various aspects of how to efficiently accomplish Patient Safety Goal #6. The following are some of the questions asked and answered in the discussion.

Is the testing of alarms being overemphasized?

Some say yes, some say no. Essentially checking an alarm according to manufacturer's specifications is a part of a biomedical technician's job every time they service, repair, or calibrate a piece of equipment. In addition to checking the alarms, JCAHO wants biomeds to confirm that the alarm can be heard at a distance and through the other noises in the unit.

How do biomeds test for audibility?

The sound levels of an alarm do not measure audibility because some equipment has alarms that can be turned down or even off. This is one of the primary reasons technicians are having a hard time trying to find a solution to the Patient Safety Goal #6. Several members of the round table stated that their hospitals had agreed that future purchases of critical equipment would be equipment that did not have a volume button. This way the volume could not be manually turned down or off.

What will JCAHO be looking for?

JCAHO will scrutinize policy and procedure. They will ask for a specific policy in writing. They may ask for documentation on the testing that has been done on alarms. A good way to document this information is to do a basic survey on every alarm tested. Here is an example of a Clinical Alarm Survey that was provided by Boyd Campbell of Catawba Valley Medical.

> Department
> Device
> Time activated alarm
> Response time to alarm
> Who responded
> What appropriate action was taken

How do biomedical departments begin to satisfy the Patient Safety Goal # 6?

First, develop a list of devices that are affected by Goal #6 beginning with the most critical devices. Then, consider the location of the device and staffing schedules. For instance, intensive care patients have a nurse with them 24/7 and are rarely ever left alone. An alarm is answered almost instantaneously. But on a general hospital floor, there may be one nurse to 12 patients. The response time is not as quick and can sometimes go unheard or even ignored. The round table members revealed that many hospitals are already experimenting with telemetry pagers. Each patient is on a different frequency. When an alarm goes off, the pager notifies the nurse which patient and what device. However

Continued on Pg. 10

Registration Form: 2003 NCBA Symposium

Name: _____ CBET _____ CCE _____ OTHER _____

Home Address: _____ City, State, Zip _____

Facility/Company : _____ Occupation/Position _____

Work Address: _____ City, State, Zip _____

Work Phone: _____ Fax: _____Email: _____

College or University (Students): _____ Current Curriculum: _____

Mail future NCBA information to: Home _____ Work _____ Member of: ASHE _____ AAMI _____

Refer questions to Dan Harrison at 800-825-1786, e-mail vicepres@ncbiomedassoc.com or Helen Jones at 336-716-3479, e-mail president@ncbiomedassoc.com

• Note: Late registration fee in effect after November 14, 2003 •

Late Registration Fees	
❑ One Day	$150
❑ Two Days	$225
❑ Three Days	$275

Late Student Registration Fees	
❑ One Day	$50
❑ Two Days	$74
❑ Three Days	$85

Monday: December 1, 2003

- ❑ Drager Anesthesia Units
- ❑ Managing PACS
- ❑ Principles of Radiology
- ❑ Principles of Ultrasound
- ❑ Study Habits for CBET Certification
- ❑ Valleylab LigaSure ESU Systems
- ❑ Zoll M Series Defibrillators

Tuesday: December 2, 2003

- ❑ Datascope Passport 2 Monitors
- ❑ Erbe Electrosurgical Units
- ❑ Hill Rom Incubators & Workstations
- ❑ Power Conditioning and Line Filtration
- ❑ Principles of Clinical Lab Equipment
- ❑ Puritan Bennett 840 Ventilators *

** Originally scheduled for Wednesday*

Wednesday: December 3, 2003

- ❑ Hazard Alerts and Recalls
- ❑ Introduction to Linear Accelerators
- ❑ Introduction to Oximetry & Capnography *
- ❑ Philips IntelliVue Monitoring
- ❑ Radiographic Injectors
- ❑ Troubleshooting Diagnostic Ultrasound

** Originally scheduled for Tuesday*

The Introduction to Oximetry & Capnography and the Puritan Bennett 840 Ventilator class have been switched due to speaker schedule conflicts. Please disregard previous published schedules

it was mentioned that this only works if the nurse responds to the page. Sometimes a patient can unhook their equipment by rolling over or shifting in the bed. This automatically sets off the alarm. If it happens on a regular basis, a nurse may begin to assume that is what happened and may not respond appropriately.

Among the specific questions, round table members also tossed around some general questions such as: Should all nurses be required to have a hearing test every year? And should alarms have a different speed or tone for each machine? However after speaking with Mr. Boyd Campbell, I pondered the question, should the solution to Patient Safety Goal #6 rely solely on the shoulders of biomeds or should other hospital personnel be involved?

I would like to thank Mr. Boyd Campbell, CBET, CRES from Catawba Valley Medical Center's Clinical Engineering Department for taking the time to let me interview him about this subject. He hosted the round table discussion and was able to make Patient Safety Goal #6 a lot clearer for this student.

Submitted by: Susan Zimmer
Second Year BMET Student
Caldwell Community College

Attention NCBA Members

This blank spot is brought to you courtesy of the 400+ members of the NCBA who thought that contributing to the NCBA News was "the other guy's job." The Board of Directors is committed to bringing you the best possible newsletter, but your contribution is essential and badly needed.

Many of you have great stories to tell, technical tips you have learned over the years, opinions you would like to express. All of this and more can be in the next newsletters if you are willing to contribute.

Contributions to the NCBA News can be sent by e-mail to editor@ncbiomedassoc.com or in printed form to the NCBA mail box:

6300-138 Creedmoor Rd.
Raleigh, NC 27612-6730

NCBA 2003 Symposium Schedule

Monday, December 1, 2003

	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	Location
Registration / Cont. Breakfast																Conf. Center Foyer
NCBA Board Meeting																Convention Office
Vendor set-up Time																Exhibit Hall
Managing PACS																South
Principles of Radiology																Ross
Zoll M Series Defibrillators																Olmsted
Principles of Ultrasound																North
Valleylab LigaSure ESU Systems																Tufts
Lunch																Oakley
Study Habits for CBET Certification																Tufts
Drager Anesthesia Units																North
Exhibit Hall Opening Reception																Exhibit Hall

Tuesday, December 2, 2003

	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	Location
Registration																Conf. Center Foyer
Keynote Address																Olmsted
Visit the Vendors/Cont. Breakfast)																Exhibit Hall
NCBA Lunch/Business Mtg.																Callaway / Oakley
Datascope Passport 2 Monitors																Ross
Principles of Clinical Lab Equipment																Tufts
Hill Rom Infant Incubators & Workstations																Azalea
Power Conditioning and Line Filtration																Dogwood
Puritan Bennett 840 Ventilators																North
Erbe Electrosurgical Units																South
Vendor's Social																Exhibit Hall
NCBA Dinner																Cardinal Ballroom
Silver Anniversary Celebration																To Be Determined

Wednesday, December 3, 2003

	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	
Registration																Conf. Center Foyer
Final Exhibit Removal																Exhibit Hall
Introduction to Linear Accelerators																Tufts
Troubleshooting Diagnostic Ultrasound																Ross
Hazard Alerts and Recalls																South
Introduction to Oximetry and Capnography																Oakley
Philips IntelliVue Monitoring																North
Lunch																Callaway
Radiographic Injectors																North
Golf Tournament																Pinehurst Golf Course

SCHEDULE of NCBA BOARD of DIRECTORS MEETINGS for 2003

March 14, 2003, Time: 10:00 a.m.
Siemens Uptime Service Center, Cary, NC
Host – Sally Goebel, Ph: 336-586-0868

May 16, 2003, Time: 10:00 a.m.
Sheraton Hotel, Research Triangle Park, NC
Host – Glenn Scales, Ph: 919-681-6638

July 11, 2003, Time: 10:00 a.m.
Wayne Memorial Hospital, Goldsboro, NC
Host – Mark Renfroe, Ph: 919-731-6077

September 12, 2003, Time: 10:00 a.m.
ARAMARK Clinical Technology Svs., Charlotte, NC
Host – Dale Allman, Ph: 800-825-1786

November 14, 2003, Time: 10:00 a.m.
Pinehurst Resort & Hotel, Pinehurst, NC
Ph: 800-487-4653, www.pinehurst.com

December 1-3, 2003
2002 NCBA Symposium and Expo
Pinehurst Resort & Hotel, Pinehurst, NC

January 9, 2004, Time: 10:00 a.m.
Duke University Hospital, Durham, NC
Host – Glenn Scales, Ph: 919-681-6638

February 6-7, 2004, Time 8:30 a.m.
Board of Directors Planning Retreat
Myrtle Beach, SC - Location to be determined

Board Meetings are open to the NCBA Membership.
Please plan to attend.

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