

C.M.I.A. NEWSLETTER

Central Coastal Chapter

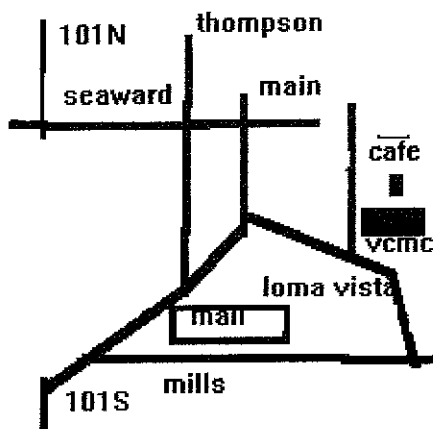
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Camarillo, Ca 93011

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The October meeting will be held at Ventura County Medical Center on Thursday the 18th in the new small cafeteria conference room. Dinner is at 6:30 pm with the monthly meeting to follow. Please RSVP to Randy Cook at 805 652-6676.



Directions: From the North, exit at Seaward Ave, go left and cross over the freeway on Seaward Ave. Take Seaward to Main St (four stoplights) Make a right on Main and go to Loma Vista. Left on Loma Vista. Pass CMH hospital on right, VCMC is on the left. Parking is behind the Medical Center. Cafeteria conference room downstairs in the new cafeteria addition behind the hospital. From Ventura South, Exit on Main St. Make an immediate right on Mills Rd (before the Mall) Take Mills to Loma Vista (4 lights) Make a left, VCMC is on the right as you head downtown

Nomination for 2008 officers and a general discussion of chapter business are the main topics for this meeting. It may not sound interesting, but it is critical to the future of this chapter. One item that will be addressed is moving the meeting date to Thursdays. Be there and make your opinion known.

Please note the date and time--THURSDAY the 18th at 6:30 PM. Not a Tuesday!!!

News off the Net: A great free ware utility. I've been working on some refurbished raw hard drives I bought recently on EBay. I had a couple that wouldn't format for love or money. I found this free ware disc testing program called MHDD. It can be used to scan, erase (low level format), and re-map drives to work-around the errors it finds. Works on IDE, SCSI, Serial ATA, and even tests CR-ROM drives! In one week it's saved me at least a half-bottle of Tylenol :) It even restored an old 2 1GB drive I had laying around! The creator's web site is MHDD.com, you can download it from there. There are images for floppy or CD-Rom boot discs. Cliff Shelby, Castle Rock, Colorado

Custom Ultrasonics valve passing:

Any hardcore plumbers out there I have a custom Ultrasonics endoscope processor and my residual drain valve is passing, causing loss of disinfectant at about 400mL per cycle. There is no debris blocking the gasket from sealing to the valve body and the gasket is in good shape (not brittle, no buildup of minerals, no cracking, etc). So I need some thoughts on what would cause a solenoid valve to not seal tightly other than the things I've mentioned here I'm stumped and I'd like to resolve this one before I bankrupt the hospital losing Cidex down the drain Jay Kupiszewski
Mercy Suburban Hospital

Check the valve diaphragm. If it is worn, deteriorating, buckled/wrinkled from age has an enlarged bleed hole or has become twisted (again from age and sterilant exposure) there will be leakage to the outlet side. You may want to check the "O" ring that seals the bonnet to the upper valve body. It may be protruding enough to bind against the piston thereby causing the diaphragm to be lifted allowing the valve to lose its seal and leak by. It is prudent to verify that the seat is not pitted or scored. It should be "as smooth as glass" and not have any deposits on it. At one time Custom Ultrasonics had installed valves that had screens in them to prevent "debris" from recirculating. Verify that the screens are clean if there is one present. The drain valve should be a normally closed style valve. If there is a weak spring and some driver/triac leakage current the valve may start to lift. Joseph Silipini II East Tennessee Sterilizer Service 423-295-4531
["mailto:etss@tds.net"](mailto:etss@tds.net)

The one thing I have learned in the time I've been in this field... just because something looks good... doesn't mean it is. The solenoid gasket replacement kits are cheap when it comes down to it. I would also question the solenoid itself... maybe the spring inside... maybe the voltage being applied or not applied. Has the o-ring that is on the gasket been crimped in anyway that may cause a bad seal? I would start with the gasket kit... then find out if the voltages are there. I don't know. I could be way off... but, it is what I would do... Michelle Holycross

Thanks for the good suggestions. I know that it is the residual drain because I have the benefit of seeing the hoses at the point that they empty into a hopper next to the machine. Custom Ultrasonics suggested that I may have installed the wrong valve rebuild kit the last time I serviced the machine, and I believe they might be right. But it seems to me if the machine was leaking 400mL of Cidex per cycle since the last time I serviced it (6 months ago) I would have heard about it much sooner. I am having CU come in and service the machine and will let you know what we find. Jay

Hill Rom Total Care Beds:

Is anyone experiencing abnormally a high failure rate of Total Care bed side-rail boards? Is there a second source for these parts? We have had a run on these boards and it's getting to be a bit pricey. I've put a call in to my sales rep but haven't heard back yet. Jay Kupiszewski

We purchased 33 Total Care Sports beds Dec 2005, only 1 board failure as I recall. We have a huge problem with the module stepper motors sticking & causing air loss system failures, I'm curious if others are experiencing this? I use Alco or Curbell for Hill Rom bed parts but not certain if they carry the Total Care parts. MaryAnn Pollard, BMEI Clinical Engineering Management
MOUNT CLEMENS REGIONAL MEDICAL CENTER A McLAREN HEALTH SERVICE 1000
Harrington Blvd Mt Clemens MI 48043

Yes, We are experiencing abnormally high failure rates of Total Care bed side-rail boards. We started repairing beds just a few months ago and have had 3 Total Care bed side-rail boards fail. Second source for Hillrom parts Caster and Parts, Inc Ph# 610-238-0444 We did not have a chance to buy part from them yet. So, I have not comment on this company. John Lee Reading Hospital

We've also had a "run" on them. Ask your Housekeeping department for details on how they clean the beds. Then go watch a few just to make sure they're following procedure. :-) In our case, they were spraying a heavy layer of disinfectant on the side-rails, and cleaning agent was getting past the thin foam seal and dripping down onto the board. It gums up the Head Up and Knee Up buttons, and the board logs the error, usually a 20 65 or 30 65 error. I just went to their school last week (they're up to Rev 7 on the manual and P1900L beds), and I believe they're trying to address this. It'd be nice if they'd put down silicone rubber tubing seals like they did with the VersaCare beds. I'll read the rest of the list for other bed parts sources, I have a few side-rail boards I think I resuscitated and I'd like to test out. Trying the old technique of 1) soak in hot water, 2) soak in distilled water, 3) soak in ethanol, 4) air dry. :-)

As for the stepper motor failures, from what I heard at the school, it depends on the model of the module. In the newer modules, the stepper motors can be pulled out and replaced very easily, just 2 screws and a cable. But, uh, to answer your question, yeah, it's a bit of a problem. Those motors are constantly moving to push or pull air out of all the various bladders, especially if you have a pulmonary surface mattress. I think I counted up that it has 14 air hose connections. Ray Brown, CBET, KB0STN Freeman Health System, Joplin, MO

I have been reading the posts on the bed rail problems, and I just thought I'd pass along the following.

Back in the early 90's, the plant staff had similar problems with bed rail controls. These were definitely due to the "environmental engineering" (aka custodial" staff) soaking the rails with liquid when cleaning the beds. Now, you can insist that Hill-Rom make the rails "liquid tight" which, as anyone knows, is almost impossible to achieve. Or, you can re-train the cleaning staff to wet the "cloth" they are cleaning the rails with, as opposed to spraying the rails directly. I'm not trying to second-guess the Biomed tech having the problem. I simply remember the bed repair maintenance fellow (who retired some years ago) and the number of expletives" he used when relating the problem to me. Cliff Shelby

I am going to email my sales rep with a picture of what the gaskets look like when I take the side-rail off. I would guess judging by the way that they look that they weren't installed correctly. There are a lot of gaps due to the gaskets being "bunched up" in certain areas. When I have the side-rail open, I am replacing all the gaskets (I ordered a bunch from Hill Rom, the gasket kit is only a couple bucks) and I am also running silicone sealant into the small gap between the panel and side-rail. It peels off easily when the side-rail needs to be open again and keeps moisture from getting into it. Jay

Aestiva question:

I have a question about an Aestiva anesthesia machine. I got a reverse flow error that was resolved by replacing the inspiratory check valve and flow sensors. But before the message, I got "VT Compensation Locked". I've seen VT Comp Off, when there is a leak, but I've never seen the "locked" message. It is not in any of my documentation. Has anyone seen this? Brian Lefler Pinehurst, NC

Usually this is caused by moisture in the flow sensors. The (GE) has a filter that will take care of the moisture issue. William C. Ninke Jr

NATUS neoBlue LED Phototherapy lights:

Has anyone noticed common failures of flashing LED lights? Natus wants **\$1400 for a repair/exchange of this LED board**. We have "shot gunned" the LED's with replacements and been successful fixing the problem (we found compatible LED's with the same frequency of light). We have also found that it appears the cause of these, in my opinion, premature failures is the location of the power supply and its proximity to the LED circuit board. The LED circuit board is extremely discolored; indicating high heat, where these LED's fail. We also noticed a non-uniformity of light output for bilirubin therapy effectiveness over this same damaged area where the power supply is located and the lights get defective. The variation can be as high as 10 to 20 points on the bilirubin meter. Has anyone else noticed this problem with their Natus neoBlue lights? The repair exchange rate is crazy. The reliability of this product in the opinion of my team and I is suspect. We'll continue to investigate ... Christopher G. Nowak, CBET

Long question short: Does anyone have any pertinent info on the replacement of these LED's? Where did you purchase them? How did the replacement go? How long ago did you perform this procedure? Are your outputs still proper? Thanks in advance for your anticipated responses. Tim

Call Lou at 262-347-0500. He is an engineer. Send him one of the good LED's and he can match one for you. He has test equipment to measure LED's. Ask him to send you the latest pictures of LED lamps he sells now. Good for 20 years and replaces the incandescent 60-Watt light bulbs for your home. He told me in 2008 you would see these hitting the market in the USA. They are already selling them in Europe 120 and 220 volt versions. Technology sure is changing. Douglas / MC

NATUS Algo "P.M.'s" SCAM:

The Natus ALGO infant hearing screening system has a great racket going on. Neonatal hearing screening is now MANDATED in most states, so the few companies in this business have a guaranteed market at every hospital. But Natus goes one step farther by MANDATING that all of their systems MUST have a yearly audio transducer exchange (\$475) to be "calibrated". There is no testing of the audio drive/audio pickup electronics circuitry in the main unit, and no feedback from NATUS if your old transducer set was 100% functional or not. There are no statistics out there from NATUS on how many transducer sets fail. I think that this is a poor performance assurance procedure, just a step above "pencil whipping", but with a \$475 charge each time. I think that FDA or ECRI ought to look into this. We have 3 of these units. Bill Knight Sacramento

I don't understand your statement that Natus mandates an annual transducer exchange. The equipment belongs to your facility. If you don't believe an annual transducer exchange is necessary or reasonable maintenance strategy, then don't do it. As the equipment manufacturer they have the right to recommend whatever maintenance process they wish, but as the equipment owner, your hospital should determine what equipment maintenance strategies to follow. John Walsh

Annual Cal is required by 29 CFR. It is the DOL that has jurisdiction but it is you who could be in trouble if you do not cal it. You have been doing the right thing all along. Natus is better equipped to do it and has set it up as a cheap and easy process for hospitals.

"http://www.osha.gov/pls/oshaweb/owadisp.show_document?p_table=STANDARDS&p_id=9740"
Leo Velasquez Mgr. Clinical Equipment Services NHTR 3333 Silas Creek Parkway Winston
Salem, NC 27103

Bill - You're lucky your acoustic cables are lasting long enough to need calibration! Our ALGO is five years old, and it has had eight acoustic cables. Only one or two have made it through a year without going bad. As far as the "calibration" being a scam, it might well be mandated by the same legislation that requires the newborn hearing screening. It is similar to the requirements for calibration of audiometers and breathalyzers, or how about our own test equipment. How often is your DVM or safety analyzer found to be out of calibration? I share your frustration with the ALGO, however. Ours has had some other annoying problems besides the acoustic cables. On the other hand, support from Natus has been good. John Barstow Mad River Community Hospital Arcata, California

First, Bill has a valid point about the services rendered. Calibrating only a transducer is not the same as calibrating a system. Since the response of the transducer is dependent upon the generator to which it is connected, calibrating only the transducer proves nothing as far as the overall system is concerned.

Second, you are correct, OSHA does require calibration of audiometers used for screening of occupational exposures. (Kudos, by the way for taking the time to find the actual document!) However, since I can't seem to think of any situations where a neonate would receive an occupational exposure to noise, I don't believe OSHA would have any authority in this specific instance. FDA? Yes. OSHA? Highly doubtful. Be that as it may, let's assume for grins and giggles that OSHA regs do apply here, much as they would for a screening system used on adults. Given Bill's previous description of the services rendered, I suspect the "calibration" service provided would not meet the intent of the OSHA regs, at least as I interpret them.

I don't read Bill's message as a complaint about having to calibrate the system, but rather as a concern that he has to pay for a service that doesn't clearly demonstrate that anything has been checked or calibrated at all. If I had to worry about these systems (and I don't anymore, thank goodness) I think I'd contact Natus and ask them to provide documentation proving their test methods meet NIST trace ability standards and state requirements for the hearing tests. Who knows, it might be fun to see what happens if you contact one of the state agencies and ask for their opinion. Rick Hampton

Oxygen-Rich Atmosphere:

What concentration of oxygen is considered to be an Oxygen-Rich Atmosphere? Some of our nurse call pillow speakers say not to use in an O₂ rich atmosphere, and our patients that are on oxygen have voiced some concern. Have any of you been asked this question before?

David P Russo, CBET Saint Michael's Hospital 900 Illinois Avenue Stevens Point, WI 54481

I researched that before and remember it being **anything >23% is considered oxygen enriched**.
Mike Barragan Brotman Medical Center

We have been asked the same thing and found the pillow speaker was allowed to operate next to the patient that was using an O₂ mask, etc. **The warning on the unit was for O₂ tents where the pillow speaker would be surrounded by an enriched O₂ environment**. Leakage from a mask is considered to be of minimal concern. I think ECRI had a small write up several years ago.
Rick Smart

LP20 AHA upgrades:

Has anyone had any difficulties doing the 2005 AHA upgrades for the Lifepak 20? Specifically, the problem I am having is I'm getting an error saying the defib is not connected to AC power. I have another laptop that is working fine, but with the volume of defibs to upgrade, multiple PC's are needed. For those very familiar with the processthe computer tries to establish communication with the defib, but sends a reboot command to the defib and gives the error message about no AC. I know that communication can be established because if I enter the wrong serial number, it tells me that the serial number is incorrect! I have the "Net hotfix" and the PC has the minimum specs.and I verified that COM1 is available. I also used this PC to upgrade our LP500s with no problems. Thanks for any help, Brian Lefler Pinehurst, NC

Is this one LP20 that you are having issues with or has it done the same thing for more than one LP20. If it is an across the board problem I would make sure that the directions are being followed to the "T". If I remember correctly there are three initial power-up sequences: 1. To start the device and enter serial# 2. To check the battery level (according to directions to verify that there is enough battery to perform the upgrade but then the upgrade is done w/ AC power connected) 3. Start the upgrade on AC power. The important thing to look out for is powering on the LP20 and hitting the next button within ten seconds or you may get some unusual messages. Daniel J. Hauer Senior Biomed Tech Fairbanks Memorial Hospital

I had this same problem when I attempted to use the laptop in a docking station. When I removed the laptop and tried it, everything was fine. Andy Frontier Biomedical

Did you remove the LP500 upgrade software prior to installing the LP 20 software? It might be an incompatibility issue between the 2 software programs? I have seen stranger stuff with "Windows" (or "Wonders" because it makes you wonder if it will work) I do know that the defib has to be connected to AC power to perform the upgrade, but I have not seen that error if you are connected to AC. Good luck! Alan Ormsbee, SR BMET Hilton Head, SC

A word of caution before you install this upgrade. The software includes a new warning to "Remove Test Plug" to prevent incidents in which the clinical users presume they have attached the Quick-Combo pads but in fact the therapy cable is still connected to the test plug. We have experienced several instances during RF ablation and once during ESU activation in which this message was apparently triggered by the RF. This problem probably won't be observed in most applications but could be an issue in the EP Lab, Cath Lab and Surgical environment. Gary Kotter

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