

C.M.I.A. NEWSLETTER

Central Coastal Chapter

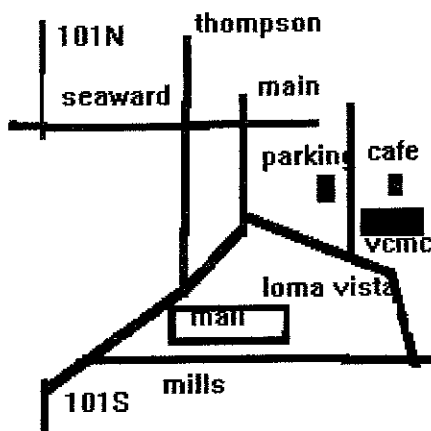
P.O. Box 360

Camarillo, Ca 93011

November, 2006

Volume 12.11

The November meeting will be held at Ventura County Medical Center on Thursday the 16th in the new small cafeteria conference room. Dinner is at 6:30pm 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 off street on left across from 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.

Randy Cook will be presenting on the CBET certification exam.

Please note the date--THURSDAY THE 16TH. Not a Tuesday!!!

November is voting for Chapter officers. We will be discussing and voting on the future of this chapter. We desire that all members be present for this meeting.

December is our annual chapter get-together with our Northern members. Please think about where we would like to meet this December.

Infant scales accuracy:

We have several infant scales that are currently not included in our pm program. I have been asked by nursing to provide some QA tools. I suggested and subsequently ordered a test weight of 10kg to confirm accuracy. The problem I have is when most manufacturers publish the accuracy of the scale they only tell you how many decimal points they display not the actual accuracy. So my question is if I place a 10kg weight on an infant scale what is the range of acceptable weights I should measure? Surely I should not expect every scale to measure 10 000 kg. Jim Allen Clinical Engineering Supervisor Five Hills Health Region 455 Fairford Street, East. Moose Jaw, Saskatchewan

That's a real loaded question, fraught with dangerous assumptions and pitfalls. Generally speaking, and I mean **very** generally speaking, you should reasonably expect accuracy plus or minus one increment of the lowest digit (highest resolution). If the scale reads 0-20kG in 1G increments (displaying "XX"), then your 10kG weight should read between 9 and 11kG. If the scale reads 0-20kG in 0.01kG increments (displaying "XX.xx" - or 10 gram resolution), then your 10kG weight should read between 9.99 and 10.01kG. **HOWEVER**, here are the pitfalls - Sometimes it will be plus or minus two or three whatever's if the display reads more accurately than the electronics can determine. For example, the scales we use in our MEPS carry this spec: Maximum Capacity/Minimum Graduation | 200kg/0.1kg (440 lb/0.2 lb). So, even though the display goes down to ± 1 increment at the first decimal place, and it reports ± 0.1 kG, once the math is done it becomes ± 2 increments when converted to pounds. **Remember, any accuracy percentage you see is traditionally based on the *full scale reading*, so the math of $\pm 0.5\%$ means that it can be off as much as 1% - you have to figure 0.5% in both directions.** Then, $20\text{kG} * \pm 0.5\%$ (or 0.01) = ± 0.1 kG or 0.2kG off. So, at **any point in the reading** the scale can be off as much as 0.2kG; so that 10kG would read between 9.8 and 10.2kG. The manufacturer can still claim a " $\pm 0.5\%$ accuracy" even though $[10.2\text{kG} - 9.8\text{kG}] / 10\text{kG} = 0.04$ which is 4% off or $\pm 2\%$ of the actual reading. Practically speaking, the numbers are usually not this extreme with digital scales, but the math holds true for all types of scales. The practical accuracy lies between these two extremes. And remember, the higher the reading, the more accurate the reading is - all else being equal. The exception here is a scale that has been calibrated **to** a particular value or range where readings are frequently made. For example, it is possible to take your 20kG scale and make it "spot-on" at 15kG, with relative inaccuracies at other readings. This might be found in a Manufacturing Pharmacy where bottles are filled to a particular weight, so the scale has received a special calibration to maximize accuracy at this weight. The best information is obtainable from the scale's manufacturer (but you might have to speak to a QC or repair person, not a salesperson who will read to you from the literature what you already know). They have the best available information on what to expect from the scale as far as accuracy in the "real-world". Bob Dondelinger

It depends on the mfg of the scale. I grabbed the service manual for the venerable (aka OLD) Air-Shields N-10 infant scale, and they state that the accuracy of the scale weighing something between zero and 2 kilograms is \pm one gram, so the center of its' accuracy there is 1.000 kg, where it could show 1.001 or 0.999. Once this scale goes above 2.0 kg, up to 15 kg, then it states that the accuracy is now \pm 5 grams, so your 10.000 kg could show 10.005 or 9.995 kg. This is just due to the limitations of the A/D circuitry. Actually, it may be due to the display accuracy, like the Fluke multimeters and their 4 1/2-digit precision. :-). Ray Brown, CBET, BMEI II, KB0STN Freeman Health System, Joplin, MO

Decontamination:

Recently a telemetry transmitter that was found in a "pool of p___p" (feces) was left on my desk for repair. It had been wiped as clean as possible and partially stuffed into a torn rubber glove with the lead wires wrapped around it. I went ballistic. I do not feel my job is to repair equipment with known contaminations of body fluids. At a bare minimum I felt it should be taken to Sterile Processing for decontamination and sterilization. My coworkers think I am an alarmist because I do not like decontaminating anything. This is the paid, stated job of Sterile Processing personnel who have stations with sinks and supplies/personal protection clothing used only for this purpose. They expect me to decontaminate a poop infested device in the same sink I use for my lunch preparation. This, to me, is ludicrous and blatantly unsafe. You don't see any medical equipment in the nurses break room, contaminated or not. Are there Policy and Procedures out there in Listserv land on this matter? At the VA nothing was brought to Biomed before it was run through Sterile Processing. Especially if it was found in a pool of any body fluid. I think my people are thinking of Universal Precautions but I doubt that covers known contaminations. Those should be dealt with separately. Your thoughts? Kevin Canwell

I agree, but we have trouble getting the word out to our users who routinely bring us nasty, crusty IV pumps, etc for "fixme" or "broken". I routinely clean off items for this very reason. I don't want to be out sick because a person who cares for the isolation pt. touched the pump, and then threw out the gloves, later pulls the pump to have us look at it. Our pumps stay on the floors, don't go to CS, but they have a CS person out on the floors cleaning them after used & put in dirty utility room/areas. This gets by-passed when Biomed has to see a pump. We just got a sink recently after 13 yrs of using the next dept's dirty sink (maint. paint, solvents, etc). Our new one is next to the "nutrition center" built in the new Biomed shop. I get real territorial about anything not-food /drink being placed on the food area. (Frig, microwave, coffee, toaster only.) We are blessed, but need to address the dirty stuff going to the dirty-to-clean experts. Also, I clean off vents before PM, since used on so many isolation pts. We get into places the RT never sees/cleans, but the dust and gunk gets into the vent. Sometimes you just have to clean it so you can get the work done. I know it would be the next day before getting back from CS in most cases. But a fecal contamination would make me send it right to CS. The person transporting it to you in such a manner needs to be written up/retrained. Biohazard bag is the minimum, and it goes on no desk either! Does anyone have any way of preventing pump hoarding besides giving every single employee one and a backup!??? Terry Brake CBET St Joseph Health Center Biomedical Electronics 667 Eastland Ave S.E. Warren OH 44484

I'm going to say I'm a bit at odds with you on this one. On occasion this happens at my facility and personally I would rather decon the unit myself to make sure not only that it's done properly but also to guarantee that the telemetry unit is not damaged by a Sterilizing Tech that knows nothing about the unit. However it's obvious by your post that your hospital staff is not handling contaminated items properly (leaving it in a glove) nor do you have the proper decontamination area in your department (I actually have a sink in my department for decon of equipment and only decon of equipment along with all the other PPE and tools for decon of electrical equipment). **If you really feel this strongly that "it is not my job", you should simply have a talk with your hospital's infection control officer.** They are going to be able to set a procedure for your hospital that everyone will then be required to follow. Plus getting them involved is another nice thing you can point to during inspections toward improving staff and patient safety.
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Baxter Colleague Pumps: Occasionally my colleague pumps will have a condition where they will not turn on. I hear this is a common occurrence. The latch is found in the open position while the units is in the off position. If you close the latch the unit will turn on okay. Does anyone know what causes the latch to be in the open position? Normally when you turn the unit off the latch automatically closes. I contacted Baxter but they only knew of two conditions that would cause this. One is with a dead battery when being used on battery. This condition did not occur with my units. The other they say is if you hold the on/off key down for 2 minutes. Again not feasible because none have a need to do this. Is there something the operator may be doing to cause this? Any help is appreciated. Ron Cozart

It could be a user issue. The proper sequence for removing the tubing is (1) stop infusion (2) open channel and remove tubing then (3) turn pump off. Sometimes, the nurse will instead (1) stop infusion (2) turn pump off then (3) manually open channel to remove tubing. Alternately, I have also seen the tubing cut out, leaving a section of tubing in the pump because the nurse did not know how to remove it properly once the pump was shut off. John Storch

I assume you are referring to the **Manual Tubing Release (MTR)** found on the right hand side of the tubing channel. There are several possibilities for it to be found in the open condition with out a corresponding Failure error in the service log. 1) Staff unloaded the tubing using the MTR. 2) Something was pressed against the front panel keypad for longer than a minute. While this sounds unlikely it is a common occurrence. The pole clamp knob on the Colleagues is perfect for this when you set one down in front of the other. The knob will press on the front panel of the pump in the back. 3) Sometimes the MTR opens for no reason. There isn't anything in the service log either. My only guess is a static discharge to the front panel during programming. I have watched this happen several times. 4) They are Colleagues, what else can I say! Rick Smart
CBET

After this occurs reset the switch, then you have to reset the front panel on off switch. This requires you to push the on/off button twice after you reset the manual switch.
rgizzarelli@rwmc.org

We often have the same problem that you described, and have been given the same reasons for failure from Baxter. We think that the problem is due to low/dead batteries while the channel is in the open position, and then after the pump is completely dead the user or central processing will plug the pump back into the wall. Look in the history log (code 8151) and see if there are any battery depleted messages. All that I can say is that after Tuesday next week Colleague issues will be a thing of the past for us. We are transferring all of our infusion pumps over to the Alaris PC series, at this point we will only be using the model 8100 pump modules but may in the future look at there syringe and PCA modules. I am sure that the Alaris pumps will have there own issues and problems but that is life and at this point we will feel that it will be a major improvement over the Colleague pumps. Daniel J. Hauer

You could also have a faulty keypad (could be intermittent) I have also seen the Dead/Very low battery issue causing it many times, although you said that wasn't the case with your problem, as long as your not assuming that because all the bars are black on the battery indicator that it means you have good batteries, they may not last very long (you can verify that by reading the Charge current, in the Batt info section, should be less than .025 after charging). I'm not too sure about opening the pump mechanism with pump turned off as a cause, as that normally causes the pump to turn on, and when turning it back off the mechanism would close. I work on a lot of these, I will experiment and see if I can duplicate this any other way. Jim Mc

Kinetec Spectra CPM: Anyone have problems with their Sammons Preston-Rolyan Spectra CPMs just stopping in the middle of treatment? We have six of these things and the ortho techs complain that they will just stop at random for no apparent reason ... tech support told me a few weeks ago that they had some in their shop for the same problem but they couldn't figure out what was wrong with them. Do you have these CPMs and when you get them in your shop you can't get them to fail? Christina Newton

When in the shop are you putting a load on them? Perhaps the motor, board, or power adapter, heats up and shuts down after being under load; or the added load, plus old grease, plus wear, plus poor soldier joint, are all combining and shutting it down. Sorry, I don't have these particular units, just some thoughts thrown out to look at. Are they stopping during treatment or shutting off during treatment? Kevin Rathjen

We had this problem with our Kinetic Performa CPMs, the problem ended up being the default force/weight settings in the service mode. After adjusting that we have been running good, with the exception of the occasional nurse not tightening the adjustment knobs. Talk with Rolyans tech support, John Karst 800-228-3693 ext. 8758, he has always been a great help to us. Daniel J. Hauer

JCAHO issues a Sentinel Alert on Emergency Power Systems: JCAHO recommends that healthcare organizations take the following specific steps:

- Match the critical equipment and systems needed in an extended emergency against the equipment and systems actually on the emergency power system.
- Inventory emergency power systems and the loads they serve.
- Provide training for and test, those who operate and maintain the emergency power supply system.
- Ensure that generator fuel is available and usable.
- Ensure that the organization management and clinical leaders know how long emergency power will be available and what locations within the facility will and will not have emergency power in the event of an electrical outage.
- Establish contingency plans for doctors and other caregivers to follow during losses of electrical power.

In addition to the alert, JCAHO is adding a new requirement in 2007 that organizations test emergency generators at least once every 36 months for a minimum of four continuous hours.

Medtronic Job Opening in Los Angeles:

We offer outstanding opportunities and compensation to outstanding candidates. If you would like to apply online for this position, you may do so at

"http://careers.peopleclick.com/jobposts/Client40_Medtronic/BU1/External/pck175-84511.htm". (Please note that URL's may wrap to another line of text; you may need to copy and paste the entire URL into your browser window.) Intermediate-Level, non-exempt Field Service Representative. Requires some direct supervision from manager as well as senior representatives to insure all phases of the job are completed accordingly. Responsible for promoting and maintaining customer satisfaction by providing on-site maintenance and repair of company and customers equipment. Contributes to revenue objectives through the sale of service agreements, parts and accessories to customers within individual territory.

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