

## C.M.I.A. NEWSLETTER

Central Coastal Chapter

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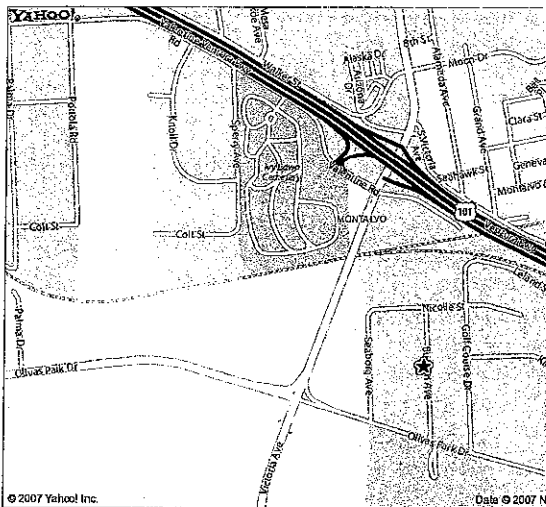
September, 2007

Volume 13.09

**The September meeting will be held at Ventrex Inc on Tuesday the 18th. Food will be provided in the company's cafeteria starting at 6 PM. A tour of the plant will follow. A short business meeting at the end.**

Yahoo! Maps - 3007 Bunsen Ave, Ventura, Ca 93003, United States 93003, US

YAHOO



Directions: Exit Highway 101 in Ventura at Victoria Avenue Go South--toward the ocean and the harbor. At the first light past the railroad overpass, make a Left onto OlivasPark Road Take the 2nd Left, Bunsen, and proceed to #3007 unit K. Park. Directions at the door

**This month we are pleased to have been invited to tour Ventrex, Inc. This local company manufactures a variety of medical products including: reuseable blood pressure transducers, heart catheters, electro-cautery surgical instruments, hearing aids, sleep apnea diagnostic devices, electronic instruments, and more.**

**News off the Net: Phillips Medical has issued a Recall on the following M4735A Defibrillators Serial Numbers: US00453441- US00453910**  
Check your equipment to make sure your defibs are not affected  
Robert Myers CBET PatientCable.com www.patientcable.com

### **Cell phones get the 'all clear' at some hospitals:**

Cell phones get the 'all clear' at some hospitals. Anyone who has been inside a hospital probably has been cut off from relatives and colleagues because of a common rule: no cellular phones. But some healthcare facilities are creating wireless networks to let patients, family members, physicians and staff members use their phones. The concern about the phones, hospital officials say, is that their signals could create electromagnetic interference with sensitive medical devices, such as ventilators or external pacemakers. Opinion is divided; some experts say the risk has been overblown. Some doctors even say cell phones promote better communication, which reduces medical errors. And people rely more heavily now on their wireless devices to stay connected to work and family. An increasing number of patients arrive with laptops and other means of communication and are frustrated if they cannot connect with the outside world, said Andrew Cooper, information technology manager at the Zangmeister Center, an oncology and hematology clinic in Columbus, Ohio. It has installed a \$70,000 antenna system for better cell phone use.

Read more: "<http://tinyurl.com/2nty4j>" -- USA Today

Paul Kelley, CBET Manager, Biomedical Engineering Washington Hospital Fremont, CA 94538

It's a shame they had to "dumb down" this story and slant the real truth of the technology. It's not that cell phones are harmless after all **but that installing an internal antenna system allows the phones to operate at lower power outputs, thus reducing the potential for interference with medical devices.** Unfortunately, after reading the article, the average reader probably walks away with the feeling that cell phones are harmless because they received the 'all clear', which is certainly not always the case. Robert Dondelinger

Nor did they state whether or not the internal antenna is for a single provider, nor whether it's a passive or active antenna extender at \$70K, probably single provider passive, even for a facility as small as that clinic... and that means families on a different provider are going to get quite the cell bill pretty soon. Installing a multi-provider active system in a full blown tertiary hospital can easily run 10X that price. And that's what it would take to fully work. The media is often great at exaggerating minor issues, while playing down documented risks in the same technologies (brain cancer vs. medical EMI are examples for cell phones). Paul Sherman

Cell phone use should not be used in any Critical Patient Monitoring area, I don't care if you are a Doctor or a Director. Any interference with medical equipment that is not necessary for the safety of the patient or care should not be allowed in these areas. If there wasn't an issue with medical equipment and cell phone interference there would not be a issue with cell phone use. That is my thoughts, thank you for listening. Robert Myers CBET, President PatientCable.com

Wow, interesting conversation. Some of us seem to get so caught up in our world that we fail to see the big picture. How many of our facilities use computers at the bedside? How many of our facilities have maintenance and security personnel walking around with 3 or 5 watt mobile radios? Some facilities now have WiFi access for hospital visitors and there mobile PC's, handhelds, etc.... All of this activity introduces volumes of RF into the care environment. It is our job to manage this RF, but not put our head-in-the-sand to the many benefits that can be realized. Many medical device manufacturers "harden" their devices to RF interference. It does not guarantee full immunity from RFI but at our facilities we insist on compliance with IEC 60601. There are numerous clinical studies including one recent study published by the Mayo Clinic as well as a study presented at the American Society of Anesthesiologists meeting in 2005. Motorola Labs presented a study in 2003. All of these studies presented excellent factual data on the use of cell phones in the healthcare setting. Are all medical devices immune... absolutely not! But to ban the

use of all cellular technology is not the answer either. In our field, we take risks everyday. We weigh risk versus benefit and make an educated decision. Every time we replace a component in a medical device that is not exactly the component used by the manufacturer we take a risk. We research the specifications for the new component and ensure that it will perform at or better than the previous component. The same goes for cell phone use. I have to tell you, if it was my mother in an ICU bed and her attending physician was available by cell phone across town in another hospital ICU, I'd want him to be able to use the cell phone to communicate with hospital staff to manage her care. The risk, even without a distributed antenna system, is something that should be managed in an effort to provide a benefit to patient care. The ASA presentation I mentioned above concluded that the small risk of cell phone interference did not outweigh the 14.9% risk of observed medical error or injury due to communication delays. Chris Nowak, CBET Regional Director "<mailto:cgnowak@mercy.net>"

And then there is this view, also out today... just a couple minutes ago, actually:

**Dangerous technology -- Mobiles should be kept away from hospital beds**

**[http://www.eurekalert.org/pub\\_releases/2007-09/bc-dt-090407.php](http://www.eurekalert.org/pub_releases/2007-09/bc-dt-090407.php)**

Interestingly, if you follow the links, download the original paper, and look at the references, you'll find both the Mayo paper that Rodney worked on and the Mass General paper that I worked on.

Even more interestingly, in spite of the divergence of the headlines, **the conclusion of all these papers is the same; cell phones can be used in hospitals IF you mitigate the risks to levels you are comfortable in accepting. None of the papers suggest carte blanche use of any emitter**, in other words, none of us are saying, "It works for us, so you should do the same." What we are saying is, **"We found a way to make it work for us and you might be able to do the same." There is a BIG difference.** Rick Hampton Wireless Communications Manager Partners HealthCare System Boston, MA 617-726-6633

As usual Rick nails it. Just as a side note I recently spent 3 days in cardiac intensive care in St Joseph's hospital in Atlanta hooked up to Philips monitoring. Their policy is no cell phones. Since I was from out of state and didn't have a calling card they let me use my cell phone. The nurse kept an eye on the monitor while I called the first time. I did too but didn't expect or see any problems, and there weren't. I really think the problem with cell phone interference has been greatly exaggerated. A reasonable policy needs to be flexible enough to protect patients and staff but also be realistic. People are going to use cell phones in a hospital, frequently in patient rooms, regardless of "policy". Expecting staff to police cell phone usage is ...unrealistic. Brian Weidman

Our hospital has "cell phone safe" areas where phones are "allowed", cafeteria, lobby, waiting room, etc. But I think 99% of the staff is either unaware of the policy or doesn't feel it should be their job to tell people they aren't allowed to use phones in patient care areas. I tried to be a stickler about enforcing this policy when I saw violations, until I saw a woman sitting at the bedside of her critically ill mother trying to call family so they could come say their goodbyes. The advantage of that woman not having to leave her mother's side outweighed the risk of interference. Jay Kupiszewski

Every hospital I've been in has had a land line phone at the bedside. Those are pretty good for connecting you to the outside world (for the most part...I guess if you have to call long distance you might have a problem if you don't have a calling card). Family and friends can also call the hospital and be transferred into the room. Gosh, how did people communicate before we had cell phones?? Melissa Silva

### **NFPA 99 re. use of medical gas in O.R.s**

We have an OR which is dedicated to laparoscopic cases, including a lot of bariatric gastric bypass cases. We are supplying CO2 for insufflation by means of 2 H cylinders connected to a manifold. The manifold is designed to immediately switch to the full tank when the pressure on the tank in use drops. This way they should never run out of CO2 during a case. To make a long story short, we were cited by a medical gas certification consultant on this. They quoted NFPA99 (1999 edition), section 4-3.1.12(a)10 a, in the citation, which states "supply systems for medical gases... shall be located outdoors in an enclosure", etc. This situation will force us to get emergency funding to spend about \$15000 to run the piping, etc. from our facilities dept. Is what the medical gas consultants saying accurate? They are citing the 1999 edition of NFPA. I have both the 1999 edition as well as the 2002 edition. The 2002 edition does not seem to read very clearly to me on this subject. I don't have the 2005 edition. Why would they cite from 1999? Does anyone out there have knowledge on this subject, or suggest any other resources? Thank you all in advance. Robert Resnicoff CBET Senior Tech Union Memorial Hospital Baltimore, MD 21218 410-554-2012

I don't have all the answers you're looking for, but there are two reasons the consultant is quoting the '99 edition.

First, it could be the only edition he has. If he's any kind of consultant, that shouldn't be the reason.

Second, it could be the State of Maryland has adopted the '99 edition into their codes and they haven't updated them. This happens quite often. If this is the case, the '99 edition is what you should be using. How to tell? Call either the State offices or NFPA and ask which, if any, editions of NFPA 99 have been codified by your state. Being in Baltimore, you could also contact your local fire inspector. I'm sure he'll be able to tell you as well. Rick Hampton

Your consultant may be accurate. You need to confirm with your Local Authority, but carbon dioxide displaces oxygen - as such and with the quantities you have - two H tanks - you have significant gas. If you can locate your manifold to an outside wall and vent to the outside - it is only a 12 inch vent. There are a lot of other regulations about gas storage in the NFPA 99 - the local authority, not your consultant has the final say. You could just locate to a secure (brick) closet with external vent, alarms, etc to meet needs. Duane Mariotti

### **Plum A+ Cases Cracking:**

Is anyone starting to see a high rate of cases cracking on corners where the front and rear halves meet? We're starting to see a high number (looking around 30% or higher) of pumps with cases having hairline cracks or full pieces out of the rear case. It's creating a fluid entry point depending on how big a piece breaks off. It's also not an easy replacement as the rear case needs to be sent to Hospira for replacement so the Serial numbers is properly tracked and transferred to a new case. Anyone seeing or heard of this to date? John Inch

One thing to check is if the cleaning agents are safe for the case materials. I have seen a lot of situations where disinfectants caused cracking and crazing of plastics. Walter K. Bordett, ME BME, CCE

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