

## Albany Med's Dr. French to Provide Medical Direction for the Albany and Schenectady Fire Departments

For the first time ever, Albany Medical Center is providing medical direction for the Albany and Schenectady Fire Departments. Albany Med has provided medical direction to Albany FD since 1994, but it wasn't until recently that an agreement was signed with the Schenectady Fire Department. David French, M.D. will serve as medical director for both urban career fire departments.

"We are delighted to be working with the dedicated professionals in Albany and Schenectady," said Mara McErlean, M.D., chair of emergency medicine at Albany Med. "For the community, this means there will be greater integration, consistency and continuity in disaster management, emergency medical care and education. For the fire departments, it means more opportunities for mutual cooperation and understanding through working and training together."

French said, "The services provided by both departments are very good, but we are always looking for ways to improve patient care. Sharing ideas between departments will facilitate such improvements, benefiting both

communities." French explains that there will be an emphasis on continuing education for common emergencies as well as education regarding emerging illnesses and therapies.

"It is very much a team approach and I'm excited about working with these agencies," says French.

Albany Med's director of pre-hospital care and education, Michael Dailey, M.D., explains that communication between the medical director and field providers will be facilitated using an on-line system. "The system—called Sakai—will facilitate communication between the medical director and the fire departments and will allow interactive, distance learning for paramedics and EMTs."

Dailey adds, "As an academic medical center, Albany Med is able to bring additional educational resources to pre-hospital providers. We are proud to have Dr. French contributing to the region in this role."

Albany Med also continues to provide medical direction for career firefighters in Watervliet, Green Island, Watervliet Arsenal, and Scotia.

## Public Encouraged to Put ICE on Their Cell Phones

Emergency department patients and visitors willingly program their cell phones with an emergency contact name and number under the acronym ICE (in case of emergency) if emergency department staff teaches them why it's important and how to do it. Dennis McKenna, M.D., an emergency department attending at Albany Med, presented his research at the 37th annual Scientific Assembly of the American College of Emergency Physicians (ACEP) in New Orleans.

In the study, of 178 people waiting in an emergency department who had cell phones with them and listened to an ICE educational

session in which researchers explained how important it is for hospital staff to reach family members, 129 agreed to have an emergency contact designated on their phones under ICE. Of those 129 people, 58 did it themselves, 36 had family members do it, and the rest had hospital staff program the numbers.

As this initiative receives growing attention throughout the community, EMS providers can do their part by reminding patients and their family members to program their emergency contacts on their cell phones, and by remembering to check cell phones when looking for next-of-kin.

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## Changes Coming to REMO's Protocol

**Pain management** – Because of the success of REMO's pain management protocol, standing orders will be expanded to allow critical care techs to treat pain under the standing orders.

**STEMI** – There will be a new protocol for ST elevation myocardial infarction. Paramedics will be able to give low dose morphine and initiate treatment with beta blockers in cases of ST elevation MI when diagnosed by 12-lead EKG. All advanced life support providers are encouraged to call medical control immediately upon diagnosing an ST elevation MI in order to facilitate rapid cardiac catheterization team response.

**Nausea and/or vomiting** – Promethazine (Phenergan) will be removed from the REMO protocol and replaced with Ondansetron (Zofran) for concerns of patient safety.

Ondansetron is a serotonin receptor antagonist used initially to treat nausea and vomiting following chemotherapy. Its effects are thought to be on both peripheral and central nerves. It is non-sedating and does not cause extra-pyramidal side effects like promethazine (Phenergan) can. It is also not as irritating to local tissues and does not cause the drastic tissue damage that extravasated phenergan allegedly can precipitate.

Primary metabolism is hepatic, although it does not seem to effect other medication rates of metabolism. It is renally excreted.

Ondansetron may be used in pregnant females if needed.

**ACLS** – REMO protocols are being updated to reflect changes to the American Heart Association guidelines and are being revised in accordance with other regions of the state in order to provide continuity statewide.

## Lethal Exposure: Carbon Monoxide Poisoning

Mike McEvoy, PhD., R.N., C.C.R.N

Odds are, as a fire or EMS provider, you've treated many victims of CO poisoning. Yet recognizing this invisible killer is no easy task.

CO kills by competitively binding with hemoglobin to prevent oxygen from being able to get a seat on the hemoglobin train. When even small amounts of CO occupy hemoglobin molecules, the cells suffocate from lack of oxygen delivery. While structure fires and motorized vehicle engines account for the majority of CO deaths, the incidence increases during the winter because of

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wood burning stoves, fireplaces, electric generators, and other sources of combustion in poorly ventilated environments.

Differentiating CO poisoning from viral illness is difficult at best. Several studies of patients presenting to emergency departments with flu-like symptoms found COHb (blood carboxyhemoglobin) levels between 3 – 24%. Non-smokers typically have COHb levels of 1-3% while smokers are often between 5-10%. Levels above 60-70% are rapidly fatal but between 10-55%, patients can range from comatose to asymptomatic. Further confounding assessment is relatively poor correlation of physical findings with various levels of CO in the body despite potential for significant injury.

Until recently, the only way to diagnose CO poisoning was with a high level of clinical suspicion and in-hospital labo-

ratory testing. Some fire departments and smoking cessation clinics measure exhaled breath to determine CO levels but the technology is cumbersome and time consuming.

A new portable device using principles of oximetry received FDA approval for non-invasive assessment of COHb levels. The RAD-57 (Masimo Corporation: Irvine, California) promises to become one of the most important medical advancements of the century. With the RAD-57, field providers can readily screen patients and firefighters for CO non-invasively and reliably.

Unnecessary transports can be avoided and seriously poisoned patients can be referred directly to a hyperbaric treatment facility. Effects of treatment at the scene can also be assessed.

Removal from the source of CO is the first priority for treatment. High concentration oxygen helps to significantly reduce the half life of CO in the blood and improve tissue oxygenation. One-hundred percent oxygen should be administered to any patient with COHb above 12% and continued until the level is below 5%. Hyperbaric treatment is usually considered for significantly symptomatic patients with COHb levels above 20%.



# Hypothermia: Cold Weather Danger

Matt Dunn, M.D.

As winter emergencies increase, so does the potential for hypothermia. Hypothermia starts when the core temperature drops by two degrees, causing a series of predictable changes. Because the most sensitive organ to temperature change is the brain, mild hypothermia can cause confusion, impaired judgment, shivering and slightly increased blood pressure and heart rate. The body increases metabolic activity and shivering to maintain core temperature, but as it continues to fall, consciousness decreases, coordination is impaired and shivering eventually stops.

Hypothermia can occur at a wide range of temperatures, with the average being 56°. This is due to a number of predisposing factors.

The young and the old do not tolerate cold temperatures and their heat generating mechanisms are less responsive. The elderly, who generally do not shiver, can become hypothermic at temperatures that most of us consider normal. The elderly person who keeps their thermostat at 70° to save money on heating bills may experience hypothermia after prolonged exposure to these temperatures.

Many medications such as NSAIDs, seizure medications, antipsychotics, and alcohol interfere with the body's thermoregulatory mechanism and may contribute to hypothermia. Malnutrition, Parkinson's, hypothyroidism and other

medical conditions can also affect a person's energy stores and thermoregulatory mechanism.

Moisture and wind have a greater impact on the development of hypothermic injuries than does cold temperature alone. High humidity and rain conduct heat away from the body 250 times more efficiently than cold alone.

Compounding these issues is that most ambulances do not carry a hypothermia thermometer. If a patient's abdomen or back feel cold, consider hypothermia. In general, if you're cold or think the patient is cold they likely are.

To prepare for the treatment of hypothermia, agencies without heated garages should turn on the cabin heat as soon as the ambulance is started. Keep plenty of blankets and chemical heating pads available (do not place pads directly in contact with skin). During treatment:

1. Remove all wet clothes and dry patient.
2. Use blankets and other insulating materials to prevent further heat loss. If needed use chemical heating pads in vascular areas, neck, axilla, groin.
3. Be gentle. Sudden rough movements can induce dysrhythmias in severe hypothermia.
4. Transport patient to definitive care.

# Thinking About Disaster Preparedness

Recently, Kim Ryan, COO of Tulane University Medical Center, made a presentation at Albany Medical Center. Entitled "Hurricane Katrina, One Hospital's Story of Survival," it brought into sharp relief some of the issues that emergency responders ought to think about when planning for disasters in our area.

**Transportation.** Tulane personnel found surface streets impassable due to flooding. How will you be able to respond if surface streets in our area become impassable due to deep snow, heavy ice, large numbers of downed trees or some other cause? Do you have contact information for your utility companies? Do you know how to reach out for alternative transportation such as CDTA or other bus companies to transport the walking wounded. Do you know where to get chain saws, generators, and other vital tools? You need to pull this information together and have it readily available.

**Communication.** Primary communications systems at Tulane failed. Cell towers were toppled, and rooftop antennas were blown away. Eventually, they were able to communicate using satellite phones with portable antennas, text messaging (which worked about one in 20 times), and ham radio. Assume that your first two primary communications systems will fail in a widespread disaster – what will be your backup systems for communication? Do you know how to text message? If not, get a lesson from a teenager or a younger colleague.

**Civil Unrest.** With civil authorities largely unavailable in New Orleans, Tulane administrators found that lawlessness and civil unrest was a real and present danger. In the event of a widespread disaster in our area that incapacitates much of law enforcement, what is the plan for protecting emergency response personnel, hospitals and emergency departments in the face of civil unrest? What will you do if local civil authorities are unable to handle the load?

**Provision for Responder's Families.** Tulane had a plan to provide housing for the families of their personnel. That way, Tulane's people could do their jobs without worrying about the fate of their families. What arrangement do you or your agency have for looking after your families in the face of a disaster?

If you don't have a response for dealing with these issues, you need one. Now is the time to start making a plan and preparations.



## Let's Not Go Overboard!

Please remember to pick up your EMS equipment.

## Upcoming Events

**January 17 | 7pm**  
**Abdominal Trauma**  
Nestor Nestor, MD

**January 17 | 8pm**  
**HIV/AIDS**  
Abigail Gallucci

**January 30 | 7pm**  
**Disaster Preparedness  
and Research Analysis**

**January 31**  
**Winter Pre-Hospital  
Symposium – Jiminy Peak**

**February 13 | 7pm**  
**Snake Bites**  
David Kuehler, MD

**February 13 | 8pm**  
**TBD**

**February 21**  
**8:30am – 4:30pm**  
Albany Med –  
Location TBD

**Basic Disaster Life  
Support Course**

**February 21 | 7pm**  
**Renal Failure**  
Wendy DeMartino, MD

**February 21 | 8pm**  
**Pediatric Trauma**  
Michelle Tomassi, MD

**March 13 | 7pm**  
**Clandestine Labs**  
Trooper Doug  
Wildermuth, NYSP

**March 13 | 8pm**  
**Near Drowning**  
David Slocum, MD

**March 21 | 7pm**  
**Geriatric Assessment**  
Andrew Johnson, EMT-P

**March 21 | 8pm**  
**Geriatric Trauma**  
Nathaneal Wood, MD

**April 10 | 7pm**  
**Seizures**  
Soma Pathak, MD

All lectures will take place in Albany Medical College's MS-169 unless otherwise stated. Lectures will be available for viewing through the Adirondack Area Network ([www.aanet.org/ems/ems1.html](http://www.aanet.org/ems/ems1.html)), which permits live, two-way video conferencing between Albany Med and one of several area teleconference sites around the region. Webcast with online chat capabilities will also be broadcast live. All conferences are archived online at AAN with links to a post-conference test site. An 80% correct score will then create a certificate of completion for your records.

For more information on these or other events, call (518) 262-8559.

**Remember: As of January 1, 2007, Albany Medical Center will be completely tobacco-free. No smoking or use of tobacco products will be permitted anywhere on property owned or leased by the Medical Center.**

## Be Careful of Heat, Cold and Medicines

In November 2000, the NYSDOH Bureau of EMS issued a policy statement that says medications must be stored "in an environment that protects them from extreme temperature changes and light. According to the medication manufacturer's guidelines, the medications must be stored at temperatures that range from 59 degrees to 77 degrees."

Why is that important?

According to Andy Johnson, DOH Sr. EMS representative, the main reason is that all medications and many other medical items have storage requirements on them that are approved by the FDA.

"If they get too hot or too cold, they can degrade and lose their efficacy," Johnson says. "Further, you never know if they have lost their efficacy."

He adds, "Another piece of gear that is affected by temperature is the pads used on automated external defibrillators. If they get too hot or too cold, the jelly can break down or dry up, and the adhesive may not work. Glucose test strips are also affected by temperature."

"Leaving ambulances outside in the summer or winter also is a problem," Johnson says. "In the summer, at least park in the shade or keep the motor and the AC running. In the winter, keep the motor and heater running or store the ambulance inside where there is a separate heat source."



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