UConn Health Center
John Dempsey Hospital

Emergency Medical Services
Partners

November 2011, Issue 16

uconnems.uchc.edu

NAEMSP : Termination of Resuscitation of Nontraumatic Cardiac Arrest

Termination of Resuscitation protocols that emphasize on-scene resuscitation may… not only mitigate the risk of an ambulance crash, but also… improve the probability of successful resuscitation by avoiding interruptions in compressions.
-*National Association of EMS Physicians*

Ambulance Safety for Patient and Provider

Ambulances traveling lights and sirens are inherently unsafe. An ambulance is the most lethal vehicle on the road both in terms of miles traveled and per vehicle. Patients and unrestrained responders are particularly at risk. 70% of EMS fatalities occur when traveling lights and sirens. There are 10 serious injuries due to ambulance crashes each day. Avoiding dangerous transport is paramount.

Studies have shown the difficulty of performing chest compressions during transport. A recent study showed compliance with AHA guidelines for compressions during transport was less than half that accomplished on scene.

Any lapse at all in the quality of chest compressions is a direct threat to patient survival, particularly in the first ten minutes when patients have the greatest chance at resuscitation.

Termination of Resuscitation Issue

Three factors EMS responders should consider when confronting nontraumatic cardiac arrest: 1) The quality of CPR must never be compromised in the interest of speedy extrication. 2) On scene termination should be considered for patients who meet state guidelines. 3) The safety of the crew and passengers should not be put unnecessarily at risk when transporting a patient with futile hopes for survival.

On Scene Resuscitation

You are a basic EMS crew equipped with an AED. You find a 250 lb. 55-year –old male with a previous MI history in cardiac arrest in the upstairs bathroom. His wife says he passed out 4 minutes ago. He has yet to receive any CPR. While your partners start CPR and prepare the AED, you call for a paramedic intercept. The paramedic is 20 minutes away. What do you do?

A. Start CPR and prepare to move the patient as soon as possible to your ambulance to begin transport.
B. Start CPR and work the patient in place for at least 20 minutes or until the paramedics arrive

Answer: While each call has its own nuances, this patient needs effective CPR to prime his heart with oxygen to better respond to defibrillation and to try to maintain some perfusion of the brain. No study has shown that ALS airway and ALS drugs improve the most critical outcome of patient discharge from the hospital. Do not rush to move the patient to the ambulance unless you can guarantee this patient will receive effective CPR while being moved. Immediate quality CPR and defibrillation are more important than a quicker meet-up with ALS. With each interruption in CPR, the patients chances of resuscitation diminish.

Connecticut Paramedic Termination of Resuscitation Guidelines

Discontinuation of CPR and ALS intervention may be implemented after contact with medical direction if all of the following criteria have been met.

1. Patient must be least 18 years of age.
2. Patient is in cardiac arrest at the time of arrival of advanced life support, no pulse, no respirations, and no heart sounds.
3. ACLS is administered for at least twenty (20) minutes, according to AHA/ACLS Guidelines
4. There is no return of spontaneous pulse and no evidence of neurological function (nonreactive pupils, no response to pain, no spontaneous movement).
5. Patient is asystolic in two (2) leads
6. No evidence or suspicion of any of the following: drug/toxin overdose, hypothermia, active internal bleeding, preceding trauma.
7. All Paramedic personnel involved in the patient care agree discontinuation of the resuscitation is appropriate.

Direct Medical Oversight (DMO) should be established prior to termination of resuscitation . The final decision to terminate resuscitative efforts should be a consensus between the scene paramedic and the DMO physician.

If any of the above criteria are not met and there are special circumstances whereby discontinuation of prehospital resuscitation is desired, contact DMO.

Notes: Logistical factors should be considered, such as collapse in a public place, family wishes, and safety of the crew and public.

All patients who are found in ventricular fibrillation or whose rhythm changes to v-fib should in general have full resuscitation continued and be transported.

Patients who arrest after arrival of EMS should be transported.

-Connecticut EMS Guidelines for Discontinuation of Prehospital Resuscitation for Adults over Age 18

Yale Field Termination Study

54% of patients transported to the emergency department (ED) for nontraumatic cardiopulmonary arrest met the National Association of Emergency Physicians (NEMSP) criteria for field termination of resuscitation. All were pronounced dead in the ED.

- Prehospital Emergency Care, 2008

UCONN Health Center EMS Web Site

For news, educational information, CME schedule and past copies of our newsletter *Partners*, check out our web site at:

uconnems.uchc.edu

UCONN Fire Department STEMI Success

Great jobs by UCONN Fire Department paramedics Dan Massaro, John Pickert, Joe Speich and John Martinez on recent cardiac calls. Thanks to early 12-Lead recognitions and STEMI Alert notifications, their critically ill patients had great door to balloon times, successful treatment and discharge with excellent outcomes. Strong work!

UCONN EMS November CME

1.North Central Connecticut EMS 2012 Guidelines Rollout
2. Cold Emergencies
3. Does Mechanism of Injury Predict Trauma Center Need?
4. Case Reviews

Thursday, November 3, 2011

9:00 AM – 12:00 PM Keller Auditorium

Regional Paramedic Skills Session

We have limited space available for paramedics at our December 7, 2011 skills session. There are two sessions 8-10 and 10-12. To reserve a space, contact Peter Canning at canning@uchc.edu.

2012 CME SCHEDULE

January 5, 2012 (Thursday)
February 15, 2012 (Wednesday
March 21, 2012 (Wednesday)
April Skills TBA
May 16, 2012 (Wednesday)
June 20, 2012 (Wednesday)
July 18, 2012 (Wednesday)
August—NO CME
September 19, 2012 (Wednesday)
October Skills TBA

Our monthly CMEs are held in Keller Auditorium at 9:00 A.M. Enter main door, take escalator down one floor. CMEs include general lectures, case reviews and journal article review. Selected additional topics may be added. 3 CME hours are awarded. 1 additional Hour CME will be given for those completing open book quiz on journal articles. Daytime parking in main lot at top of hill is now limited to visitors and patients. If you are unable to find parking, please park in lower lots and take shuttle bus. Thanks.

All EMS Responders are Welcome!

CONTACT US:

Any questions or suggestions about EMS? Looking for patient follow-up?

Contact EMS Coordinator Peter Canning at canning@uchc.edu or call (860) 679-3485.