



Emergency Medical Services

Partners

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Teamwork in Action—Neonatal Resuscitation!



Simsbury Ambulance paramedics Barbara Carter and Karin Stewart have a great working relationship. Each usually comes in an half hour before crew change to relieve the other. One Monday evening last month shortly after Carter arrived to relieve Stewart a call came in for “vaginal bleeding.” Stewart accompanied Carter in the fly car to see if an extra hand was needed and to be able to return the fly car to the base should Carter need to accompany the ambulance crew to the hospital. Both their hearts raced when, just before their arrival on scene, came the update “baby born.” When they entered the house, **Simsbury Police Department** officer and first responder Tim May

handed Carter a profoundly premature dusky 24-week gestational infant. The baby, who weighed only 0.77 kilograms, wasn’t much longer than Carter’s outstretched hand. Call it training, call it education, or call it grace under pressure, Carter and Stewart, mothers themselves, did what EMS responders do. They went to work. They wrapped the child in a towel, used a bulb syringe to clear secretions from its airway, assisted the baby’s struggling ventilations and cut the umbilical chord. While Simsbury EMTs Chris Collins and Erin Komidar stayed to care for the mother with **Granby Ambulance** responding to the scene as mutual aid, Stewart and Carter quickly moved the child to the Simsbury ambulance and EMT Donna Anderson began the urgent transport to **John Dempsey Hospital**. The baby’s oxygen saturation (the SPO2 sensor wrapped around its foot) was in the 80’s. The child was sluggish and cyanotic. Carter noticed its heart rate falling, down to 80, then 76, 72... She began chest compressions with a single finger on the baby’s sternum. Stewart continued ventilating with a neonatal bag-value mask. Neither paramedic was certain the child was even big enough to be viable, but they were cheered as “the fighter kid,” as Stewart came to refer to the baby, seemed to clench its fists. The duskiness slowly turned to pink.

The crew, who provided **crucial early notification** to John Dempsey Hospital of the premature birth, arrived at JDH to find an open ED door and the hospital’s NICU team and ED staffs awaiting their precious patient. The efforts of the Simsbury crew ensured the child was kept viable long enough that the team was able to successfully resuscitate and stabilize the child, who now with confirmed pulse and blood pressure, was rushed to the Neonatal Intensive Care Unit (NICU). The child survived the critical first 24 hours and continues to grow and make progress.



R.N. Beth Thompson, a member of the NICU team called the EMS crew’s response “remarkable.” John Dempsey EMS Director Richard Kamin cited the crew’s hard work and diligence that paid off when it counted most. “This is what EMS is all about,” he said. Both medics had effusive praise for the hospital response. “I was so impressed with the staff and equipment that was waiting for us when we arrived,” Carter said. “They were great!” said Stewart.

The 40-bed **Connecticut Children’s NICU at the UCONN Health Center** has taken care of thousands of babies in the region over the last thirty years.

Newborn Resuscitation Tips

If a newborn is full term, is breathing or crying and has good muscle tone, the infant should be warmed, airway cleared if necessary, dried and kept with the mother.

But if these three conditions are not met, the baby should be stimulated. If the heart rate is below 100, or if the baby is gasping or has apnea, positive pressure ventilation is required.

Assisted ventilations should be at a rate of 40-60 breaths per minute. Use the minimum amount of pressure necessary to achieve an increase in heart rate.

Should the heart rate fall below 100, attempt to improve ventilation. Use caution — it is easy to over-inflate and damage the newborn's lungs.

Should the heart rate fall below 60, initiate chest compressions. Chest compressions should be coordinated with ventilations to prevent interference.



Deliver chest compressions on the lower third of the sternum and compress one third of the patient's diameter. Allow chest to fully expand after each compression.

Use a 3:1 compression to ventilation ration at a rate to allow 90 compressions and 30 ventilations per minute. Each breath should be 1/2 second with exhalation occurring during the first chest compression.

Always provide early notification to the receiving hospital.

Source — AHA 2010 Guidelines

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.uhc.edu

More EMS Praise

Great job by UCONN Fire Department paramedics Robert LaPerriere and Greg Priest who utilized rapid sequence intubation (RSI) to secure the unstable airway of a Farmington woman with severe burns. Kudos also to the **Farmington Fire Department** first responders, who extricated the woman from the house fire and began treatment, and the transporting crew from **American Medical Response**.



UCONN EMS OCTOBER CME

ALL EMS RESPONDERS WELCOME!

Allergic Reaction/Anaphylaxis

Benjamin Evenchik, M.D.

Documentation: Why?

Richard Kamin, MD.

Peter Canning, Paramedic, R.N.

Journal Article/Topic Discussion:

**Termination of Resuscitation in Nontraumatic
Cardiopulmonary Arrest**

Case Reviews

Richard Kamin, M.D.

Thursday, October 6, 2011

9:00 AM – 12:00 PM

Keller Auditorium

Keller Auditorium (located in Main Hospital Building)

Enter main door, take escalator down one floor.

UPCOMING CME SCHEDULE

Our monthly CMEs are held in Keller Auditorium at 9:00 A.M. Each CME consists of a general lecture, case reviews and journal article review. Selected additional topics may be added. 3 Hours CME are given. 4 Hours with completion of journal article. Upcoming dates/topics include:

November 3, 2011 (Thursday)

Cold Emergencies

NC Regional 2012 Protocol Rollout

December 7, 2011 (Wednesday)

Skill Sessions (8-10, 10-12 AM)

(Sign-up required for skill sessions)

Parking Notice:

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.

CONTACT US:

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



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