



Emergency Medical Services

Partners

April 2011, Issue 9

uconnems.uhc.edu

Fentanyl Versus Morphine

Paramedics in the North Central region are now able to utilize Fentanyl as an alternative to morphine for patients in moderate to severe pain.



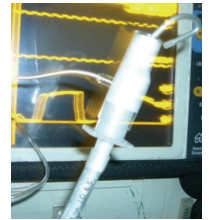
Fentanyl is a potent narcotic. 100 mcgs of Fentanyl is roughly equivalent to 10 mg of Morphine. Fentanyl has a number of advantages over morphine as a prehospital drug.

- ◆ Fentanyl acts more rapidly with peak effect of 1-2 minutes versus Morphine 10-20.
- ◆ Fentanyl is shorter acting with a duration of 30 minutes – 2 hours versus MS's 3-4 hours
- ◆ Fentanyl does not produce histamine release
- ◆ Fentanyl less likely to produce nausea and vomiting
- ◆ Fentanyl less likely to cause hypotension

The first dose of Fentanyl should be 1 mcg/kg to a maximum of 50 mcg. If after 5 minutes, pain is still moderate to severe, administer 1 mcg/kg to a maximum of 50 mcg. If 10 minutes after last dose, the patient still reports moderate to severe pain, administer 1 mcg/kg to a maximum dose of 50 mcg. The total standing order maximum dose is 3 mcg/kg or 150 mcg. Push each dose slowly over 1-2 minutes. Currently the North Central Regional Medical Committee is considering protocols to allow paramedics to give Fentanyl intranasally (IN) using an atomizer. Stay tuned.

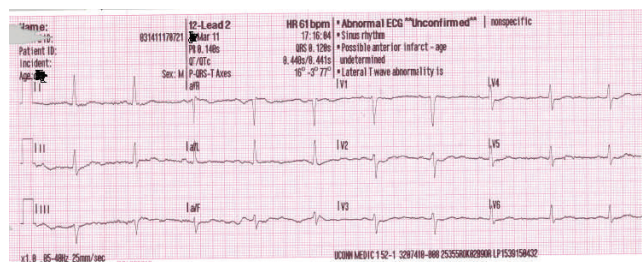
ET Tube Confirmation

End Tidal waveform capnography is the gold standard of ET tube confirmation. After passing the ET tube through the vocal chords, immediately attach an ETCO2 filter to the tube and on ventilation look for a confirmatory wave form. Next, auscultate the epigastrium. If no sounds are heard, auscultate the lungs bilaterally. If breath sounds are heard on the right, but not on the left, you may be in the right main stem. Withdraw the tube 1-2 cms and auscultate again. Also assess chest rise, condensation in the tube and changes in patient appearance. Secure tube with a tube holder and consider placing an ET collar on patient to limit movement. Tube placement should be continuously monitored with wave form capnography!



Serial 12-Lead ECGs

Your patient is a 56-year old man with 8/10 nonradiating chest pressure. The patient's vitals are 160/100, 60, and 20 with a SAT of 99%. The patient is warm and dry with no dyspnea, diaphoresis or nausea. The first responders have already given the patient 325 mg ASA PO. You do a 12-lead which is listed here:



You put in an IV and give the patient 0.4 mg NTG SL with no relief. You are 20 minutes from the hospital. What else should you do? (see next page)

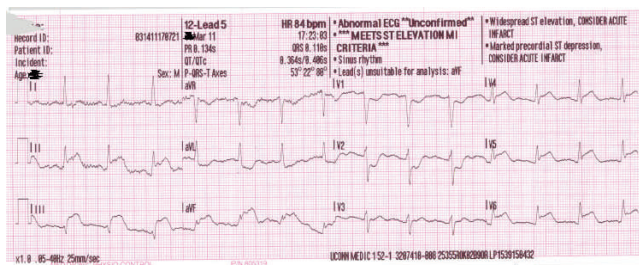
“Relief of pain and suffering must be a priority of every emergency medical system.”

-National Association of EMS Physicians



Serial ECGs (Continued)

North Central Regional Guidelines state “Prepare to repeat 12-lead at 10 minute intervals or on change in condition.” In the course of 7 minutes, this patient went from a benign ECG to a massive acute STEMI.



UCONN Fire Department Lt. John Pickert recognizing the evolving infarct pattern, called in a STEMI alert and transmitted the ECG to the receiving hospital. The patient had a 100% blockage in the circumflex artery that was successfully stented. Pickert’s awareness and serial ECGs saved this patient’s life. In chest pain, never settle for one 12-lead.

April EMS CME

Join us on April 7, 2011 at 9:00 A.M. for our monthly CME. All area providers are welcome.

Pulse Oximetry, Oxygen and Hypoxemia
Deidre Cronin, M.D.

Case Reviews
Richard Kamin, M.D.

Journal Review
Out-of-hospital airway management in the United States Resuscitation, April 2011

Meetings are held on the first Thursday of each month. The April meeting will be held in room D1002 of the Administrative Resources Building (ASB) located by the helipad. 3 hours CME are given. 4 if assigned articles are read. For questions about CME or to obtain a copy of journal article, send an email to Peter Canning at canning@uchc.edu or call at (860) 679-3485. Free parking is available in the lower lot of the Medical Arts & Research Building (MARB) next to the ASB: There are two levels of parking at the MARB. Both levels have general, convenience and patient parking. Please be attentive to the posted signs.

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

Community EMS Heroes



American Medical Response (AMR) Paramedic Chris Dennis and the firefighters from **West Hartford Fire Department** Station 2, Group 4, have proven to be solid links in their community’s chain of survival. Last September and then again this January they responded to cardiac arrests in West Hartford, successfully restoring breathing and pulses to their patients and then rushing them to John Dempsey Hospital, where treatments included induced hypothermia and advanced cardiac care. Both patients today are home and can be seen walking in their neighborhoods with their spouses of many years. Community teamwork at its best!

UCONN Medics Airway Success

Congratulations to the **UCONN Fire Department** paramedics whose 88% successful intubation rate is well above the 78% national average reported in a comprehensive paper *Out-of-hospital airway management in the United States* just published in the April 2011 *Resuscitation* by noted airway scholar Henry E. Wang. The medics, who undergo rigorous airway management training, also had a successful intubation rate in cases involving rapid sequence intubation of 90% versus an announced national rate of 81%. The medics have a 100% compliance with regional airway form reporting. Keep up the great work!



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.