



# Emergency Medical Services Partners

July 2011, Issue 12

[uconnems.uhc.edu](http://uconnems.uhc.edu)

## Pediatric Pain Management

Children of all ages, even newborns, can suffer from pain. National studies (and local data) show that children are under-treated for acute pain compared with adults. Failure to treat a child's pain appropriately can lead to severe short and long-term consequences. While it can be difficult to measure a child's subjective pain, EMS responders should do their best to assess pediatric pain using the proper pain scale (see scales to right). Providers should maximize the use of non-pharmaceutical pain management techniques (e.g. positioning, padding and splinting, reassurance, guided imagery, heat/cold therapy, etc.) whenever possible. Any pediatric patient presenting with a persistent complaint of moderate to severe pain (rating 4 or greater on pain scale) including but not limited to: significant extremity injuries, burn patients, sickle cell crisis, crush injury patients, back and spinal pain, should receive narcotic analgesia if pain is unresponsive to BLS techniques.



(photo by doko-stock)

## Pediatric Pain Dosing (Same as Adult)

Dosing for Morphine and Fentanyl for pediatrics is similar to adult dosing and can be given on standing orders. Pediatric Systolic BP should be approximately 2 x Age in Years +70.

**Morphine:** Administer 0.1 mg/kg up to 10 mg Slow IV over 4-5 minutes. If 10 Minutes after completion of the last morphine dose, the patient still reports moderate to severe pain (4 or greater on 1-10 scale) and the Systolic BP is appropriate, administer: 0.05mg/kg of Morphine up to 5 mg Slow IV over 4-5 minutes to a Maximum Total Dose of 0.15 mg/kg up to 15 mg.

**Fentanyl:** Administer 1mcg/kg SIVP (to maximum single dose of 50mcg). If Five (5) Minutes after completion of last dose, and patient still reports moderate to severe pain, administer Fentanyl 1mcg/kg (to maximum single dose of 50mcg). If Ten (10) Minutes after completion of last dose, and patient still reports moderate to severe pain, administer Fentanyl 1mcg/kg (to maximum single dose of 50mcg) to a maximum Total Dose of 3mcg/kg or 150mcg.

Morphine and Fentanyl can be given IV, IM or IO. It is anticipated that starting in 2012, medics in the North Central region will be able to give Fentanyl intranasally (IN).

## Pediatric Pain Scales

Determine the ability of the child to verbally express themselves and choose an appropriate pain scale. The following are general guidelines:

<3 years old – Behavioral tool or FACES Scale

3-7 years old – FACES Scale or visual analog scale

8 – 13 years old – Visual Analog Scale

### Behavioral Tool

(Add each category to calculate pain score (0-10))

	0	1	2
<b>FACE</b>	No particular expression or smile	Occasional grimace or frown, withdrawn, disinterested	Frequent to constant frown, clenched jaw, quivering chin
<b>LEGS</b>	Normal position or relaxed	Uneasy, restless, tense	Kicking or legs drawn up
<b>ACTIVITY</b>	Lying quietly, normal position, moves easily	Squirming, tense, shifting back and forth, hesitant to move, guarding	Arched, rigid or jerking, fixed position, rocking, rubbing of body part
<b>CRY</b>	No cry/moan (awake or asleep)	Moans or whimpers, occasional cries, sighs or complaint	Cries steadily, screams, sobs, moans, groans, frequent complaints
<b>CONSOLABILITY</b>	Calm, content, relaxed, needs no consoling	Reassured by hugging, talking to; distractible	Difficult to console or comfort

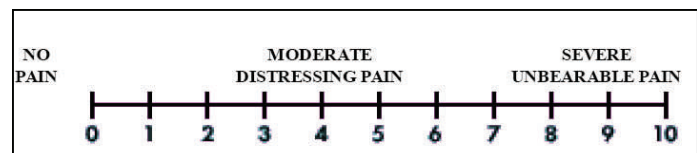
### Wong-Baker FACES Pain Rating Scale

Explain to the child that each face is for a person who feels happy because he has no pain or sad because he has some pain, or a lot of pain. Ask the child to choose the face that best describes how he/she is feeling.



### Visual Analog Scale

Ask the patient to mark or point to the severity of their pain on a scale of zero to ten with zero being no pain and ten being unbearable pain, the worst pain they have ever felt.



## EMS KUDOS

### Canton Ambulance AEMTs

Ryan Paretto and Michael Wilmot responded in Canton

for a person with chest pain by the side of the Farmington River. Paretto gave the patient Aspirin and applied oxygen. **UCONN**

**Fire Department** Paramedic Robert Laperriere met the Canton crew at an intercept point, did a rapid 12-lead ECG, recognized the patient was having an ST-elevation MI, and transmitted the ECG to John Dempsey Hospital, which readied their cath lab. Several weeks later, Canton Ambulance EMTs Ray Wheeler and Sean Reynolds responded to a call for another person having chest pain at home. UCONN medics Neil Prendergast and John Pickert arrived shortly after and quickly discovered the patient was also having a STEMI. They transmitted his ECG and the patient was rapidly transported to John Dempsey where the cardiology and ED staffs awaited his arrival. Both patients were successfully treated (with outstanding Door-to-Balloon times) and were all discharged home within a few days. Keep up the great work all! EMS responders continue to make a critical difference in our patient outcomes.



## Cardiac Arrest Save

### American Medical Response

Paramedic Steve Decapua and his



EMT partner Kathleen Bowden were transporting a chest pain patient to John Dempsey Hospital when the patient suffered a sudden cardiac arrest. Decapua, acting quickly, immediately applied defib pads and shocked the patient at 200 J, restoring a sinus rhythm. UCONN paramedic Darryl Byrne noticing an AMR ambulance by the side of the road with its lights flashing but no one behind the wheel, stopped to investigate and ended up assisting Decapua and Bowden with stabilizing the patient and notifying the ED of the change in condition. The patient was rushed to the hospital's cath lab where a complete occlusion of his left anterior descending artery was successfully cleared. Three days later, the patient was discharged home, alert, walking on his own power, with full neurological function.

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Kudos to UCONN Paramedics Tony Ruggerio and Wendell Cote, AMR EMTs Steve Teiger and William Gavrish, and **Avon Police Department** first responders for their excellent care on a STEMI patient from Avon, who also had a great outcome due to excellent EMS care.

## UCONN Morning EMS CME – July 2011

All EMS Providers Welcome

### The Return of the EMS Tourniquet!

Nicholas Dutton-Swain, M.D.

#### Case Reviews

Richard Kamin, M.D.

#### Journal Article:

*Use of a limited lights and siren protocol in the prehospital setting vs standard usage*  
American Journal of Emergency Medicine (2011)

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**Thursday, July 7, 2011**

9:00 AM

Keller Auditorium

#### 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.

## EMS Morning CME Schedule 2011

Join us for our Monthly CMES (First Thursday Mornings) at 9:00 A.M. (3 Hours CME Offered) All EMS responders (all levels and services) are welcome.

July 7, 2011

August—No Meeting

September 1, 2011

October 6, 2011

November 3, 2011

December 1, 2011—Skills Session

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Meetings will be held in Keller Auditorium in Main Hospital Building. Skills Session location to be announced later.

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For questions about CME or to obtain journal articles, contact Peter Canning at [canning@uchc.edu](mailto:canning@uchc.edu) or call at (860) 679-3485.

## 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](http://uconnems.uchc.edu)

## CONTACT US:

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



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