



Emergency Medical Services

Partners

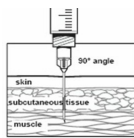
May 2012, Issue 23

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IM Midazolam for Status Epilepticus

In a new study published in *The New England Journal of Medicine* researchers compared IM Midazolam to IV Ativan in terminating prehospital seizures.

Paramedics were given a sealed kit containing either 10 mg Midazolam in an injectable syringe (think Epi-Pen) and an IV placebo or an injectable placebo and 4 mg Ativan for IV injection. When they opened the kit, a voice recorder was activated. The medics announced when they had given the IM dose, when they had obtained IV access, when they had pushed the IV dose and when the seizure stopped. The study utilized over 4000 paramedics from 33 EMS agencies, and 79 hospitals.



Here's what they found: IM Midazolam stopped 329 of 448 (73.4%) seizures; IV Ativan stopped 282 of 445 (63.4%). It took 1.2 minutes to administer the Midazolam and 4.8 minutes to administer the Ativan. The IM Midazolam took 3.3 minutes to stop the seizure; the IV Ativan took 1.6 minutes. For total time (includes getting access), it took IM Midazolam 4.5 minutes and IV Ativan 6.8 minutes to stop the seizure. Between the two drugs, there was no difference in the need for intubation, no difference in repeat seizures or in hypotension. Patients who received IM Midazolam were less likely to be admitted or go to the ICU.

The authors concluded that "the intramuscular administration of Midazolam by EMS is a practical, safe, and effective alternative to the intravenous route for treating prolonged convulsive seizures in the prehospital setting." In an accompanying editorial, Laurence Hirsch, M.D. wrote: "the findings in this study should

EMS Does it Again!

For the 3rd time in three months, our local EMS system has risen to the occasion. A 62-year old man collapsed at work. CPR was started immediately by the company's security guards. Responders from **Farmington Fire Department** arrived and defibrillated the patient. A crew from **American Medical Response** took over CPR. **UConn Fire Department** Paramedics John Martinez and Tony Ruggerio arrived, defibrillated the patient twice more, started an IV and gave the patient epinephrine and amiodarone. Soon the patient had strong pulses and a blood pressure. A 12-lead ECG showed the patient was suffering from a ST-elevation myocardial infarction (STEMI). He was rushed to **John Dempsey Hospital**, where he was further stabilized in the ED, and then taken up to the cardiac cath lab where the blockage in his heart was cleared. He walked out of the hospital under full power five days later with a doctor's note excusing him from work for the next two weeks. Another fantastic job by EMS!



(Photos above: UCONN Medic John Martinez, AMR EMTs Lindsay Ryan, Krystyna Letizio, Farmington Fire Responders Gary Petersen, Lt. David Koplowitz and Shaun Koch. Missing from the pictures are Farmington Fire Lt. Nick Kimball and Fire Fighter Matthew Collins, UCONN Fire paramedic Tony Ruggerio.)

lead to a systematic change in the way patients in status epilepticus are treated en route to the hospital."

Research has shown that the longer seizures persist, the harder they are to terminate pharmacologically. Paramedics should consider using Midazolam IM as their first line treatment in status epilepticus.

19 Minute Door-to-Balloon Record!

Bristol EMS paramedic Elizabeth Austin and her partner Brian LaFarge provided John Dempsey Hospital with early notification of an incoming STEMI this month. Based on Austin's call, ED Physician Rob Fuller automatically activated the cardiac cath laboratory. JDH cardiologists met the ambulance at the ED door and the patient was whisked right up to the cath lab on the EMS stretcher. The patient's critical 100% blockage of the right coronary artery was cleared while Austin and Lafarge watched from the observation room. Thanks to Austin's prehospital STEMI activation, the patient had a hospital record 19 minute door-to-balloon time. He did very well and was discharged home just three days later.



UCONN Fire Department paramedics Joe Speich and John Pickert deserve kudos for their prehospital STEMI activation call late on a Saturday night that also led to an outstanding door-to-balloon time and great outcome for their patient. Speich and Pickert activated the cath lab from the patient's bedside as soon they had done their 12-lead ECG. This helped speed cath lab preparation for the patient's arrival.



REMEMBER

**EARLY NOTIFICATION SAVES LIVES!
ALWAYS ASK FOR MEDICAL CONTROL
WHEN CALLING IN WITH
A STEMI ACTIVATION OR STEMI ALERT**

New NCEMS Region Treatment Changes

The North Central EMS Medical Advisory Committee approved sublingual Zofran for nausea and vomiting at its April meeting. Paramedics can also use racemic epinephrine bullets mixed with saline for pediatrics with stridor and respiratory distress at rest instead of nebulized standard epinephrine.



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



May EMS CME



Turn and Face the Strange EMS Changes: Past and Future

Richard Kamin, M.D.
Peter Canning, Paramedic, R.N.

Journal Review:

*Questioning the use of epinephrine to treat cardiac arrest/
Prehospital epinephrine use and survival among patients with
out-of-hospital cardiac arrest*
JAMA, March 2012

Case Reviews

Wednesday, May 16, 2012
8:30 A.M.
Keller Auditorium



Upcoming CME 2012

Morning

May 16, 2012 (Wednesday)
June 20, 2012 (Wednesday)
July 18, 2012 (Wednesday)
August 2012—NO CME
September 19, 2012 (Wednesday)
October Skills, TBA

Evening

June 13, 2012 (Wednesday)
September 5, 2012 (Wednesday)
December 5, 2012 (Wednesday)



Our monthly morning CMEs are held in Keller Auditorium at 8:30 A.M. Our quarterly evening CMEs are held in Keller Auditorium at 7:00 P.M. Enter main door, take escalator down one floor. CMEs include general lectures, case reviews and journal article review. 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. For the evening CME, there is plenty of parking at the top of the hill. 3 Hours CME are offered.

**All EMS Responders and General Public
are Welcome!**

**John Dempsey Hospital
EMS Conference
Date To B Announced
Coming Fall 2012**

CONTACT US:

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



Contact EMS Coordinator Peter Canning at
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