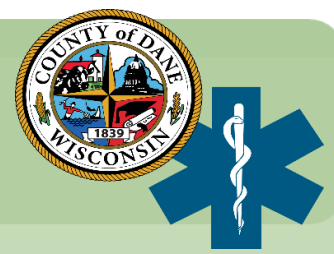


Dane County EMS Newsletter

March, 2023



2022 Cardiac Arrest Survivors

In 2022, Dane County EMS agencies were involved in the saves of 50 cardiac arrest patients, 49 of which had good neurological outcomes. This is the highest number of survivors Dane County has seen in one year since the data has been tracked! We will get the opportunity to celebrate these survivors and their rescuers at the Survivor Celebration event on July 23rd at the Mallards. Keep an eye out for more information to come!

This is a testament to all the great cardiac arrest care EMS continues to provide to our patients. Thank you!

Upcoming Events and Training

4/7, 7pm - Madison Capitols Hockey Team First Responders Night. Complimentary tickets available here:

<https://forms.gle/qZQpFmeRZQgAh3Cd6>

4/19, 6pm - UW Health Monthly Training - Cardiac Emergencies (Virtual)

Uwhealth.org/EEN23

4/20, 6pm - SSM Health Month Training: Hypertension and Hemorrhagic Stroke. Online and in-person

March Viz Quiz

You are responding onto the highway for a 22 year old male involved in a high speed MVC. Per report, the patient was the restrained driver traveling at highway speeds when his vehicle hit some ice and slid off the roadway. You find the passenger compartment has approximately 7" of intrusion, and notice this exam finding while you are assessing him:

Based on this exam finding, you believe that this patient has a:

- A. High C-Spine Fracture
- B. Mid C-Spine Fracture
- C. Perforated Tympanic Membrane
- D. Basilar Skull Fracture
- E. Orbital Skull Fracture
- F. Craniocaudal Dissociation

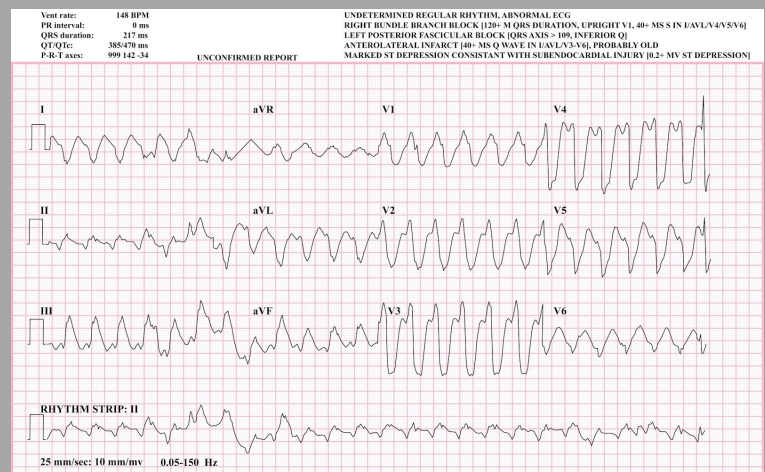


Submit your answers at <https://www.surveymonkey.com/r/VDGZTMS> for the chance to win a prize!

February Viz Quiz Follow-Up

Answer: 5. Treat chest pain with aspirin and nitroglycerin.

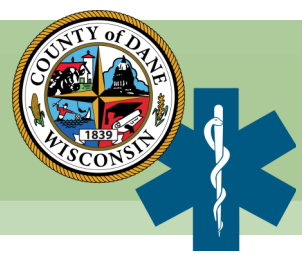
The patient has a wide-complex regular tachycardia. Note that the patient has a pulse and is hypertensive. Per the DCEMS protocols, supportive care can be rendered. In this case, with active chest pain, aspirin and nitroglycerin are appropriate. Adenosine? This should be used for cases of SVT, which are predominantly narrow-complex. Magnesium Sulfate? Not harmful, but is specifically indicated when the wide-complex rhythm is polymorphic. Intubate or defibrillate? Defibrillation is not appropriate. Synchronized cardioversion would be indicated if this patient was clinically unstable (hypotension, lethargy, etc).



Congratulations to Stephanie from Waunakee EMS for winning the February Viz Quiz prize!

Dane County EMS Newsletter

March, 2023



Case Vignette of the Month

Case: You have been paged to a 31D02, Unconscious / Fainting (Near), Unconscious person. Per the CAD notes, you are being dispatched to a 28 y/o female who had passed out and was bleeding from her mouth, unknown if breathing. Once en route, the dispatch notes are updated with bystander now reporting that the person is not breathing, and that CPR is being started. On PD arrival, 2mg of IN Naloxone are administered without change. On your arrival, the pt. continues to have pinpoint pupils, is apneic and pulseless. An additional 2mg of IN Naloxone is administered, HPCPR is continued, and the pt. is transitioned to the LUCAS device. The boyfriend discloses to you that the pt. has never used opioids before but did recently snort a line of cocaine.

PD tells you they have been investigating several cases of adulteration of illicit drugs with Xylazine.

Discussion:

- How does Xylazine overdose impact your care for this patient?
- Are there potential risks to First Responders in cases of Xylazine overdose?
- What in the world is Xylazine??

Bottom Line Up Front:

- “Health care professionals should consider potential xylazine exposure when patients presenting with an overdose do not respond to naloxone. In these situations, provide supportive measures and consider screening for xylazine.”
- “...(in) patients with severe, necrotic skin ulcerations...consider repeated xylazine exposure as part of the differential diagnosis.
- “Finally, health care professionals caring for patients with OUD should monitor patients for withdrawal symptoms not managed by traditional OUD treatments, as this may indicate xylazine withdrawal.”

What is Xylazine?

- Xylazine (Rompum, AnaSed, Sedazine) is a sedative with analgesic and muscle relaxant properties approved for use in veterinary medicine only. Xylazine is an α_2 -adrenergic agonist that acts via stimulation of central α_2 -receptors.
- It is not approved by the FDA for human use and is currently not a federally controlled substance, requiring only a veterinarian's prescription.
- It can be purchased online in liquid and powder form, often without veterinary licensure or requirements to prove legitimate need. Adding it to street drugs may increase the profit, as its effects allow for reduced amounts of fentanyl or heroin. Some users may seek it out because of the longer-lasting effects than fentanyl alone.
- According to the DEA, all four U.S. census regions have xylazine-positive fatal overdoses and have all experienced a significant jump from 2020 to 2021. It is unknown what percentage of the increase is due to expanded testing versus increasing use of xylazine.
- Xylazine is also known as tranq, tranq-dope, sleep-cut, Philly dope, sleepy meth and zombie drug. Drugs such as cocaine, fentanyl, and heroin are often adulterated to increase bulk or modify effects of other drugs. Xylazine is especially common in the “speedball” mixture of heroin and cocaine.
- Xylazine may be abused independently from other drugs. Routes of administration include smoking, snorting, swallowing, inhaling, or injecting.
- How will we know if Xylazine is involved in our overdose? Xylazine should be suspected in overdose patients and who are poorly responsive to naloxone treatment. Xylazine can be picked up in a comprehensive toxicology screen; standard ED urine drug tests will not detect xylazine.
- Heroin users with chronic use of xylazine as an additive may be more likely to develop skin lesions and ulcers when compared to those that only use heroin
- What is the treatment for a Xylazine overdose? Focus on the A-B-C's: supporting respiratory function, and blood pressure stability. Emergency care may include endotracheal intubation, IV fluid resuscitation, vasopressors, ECG monitoring, and monitoring blood glucose and electrolytes.

References: FDA Letter to Stakeholders, Nov. 8, 2022 <https://www.fda.gov/media/162981/download> ; Drug Enforcement Administration. Xylazine. Oct. 2022 <https://www.dea.gov/sites/default/files/2022-12/The%20Growing%20Threat%20of%20Xylazine%20and%20its%20Mixture%20with%20Illicit%20Drugs.pdf> ; American College of Emergency Physicians. Xylazine, an Emerging Adulterant. October 18, 2021 <https://www.acep.org/talem/newsroom/oct-2021/xylazine-an-emerging-adulterant/> ; Velez LI, Shepherd G, Mills LD, Rivera W. Systemic toxicity after an ocular exposure to xylazine hydrochloride. J Emerg Med. 2006 May;30(4):407-10. doi: 1016/j.jemermed.2006.02.042. PMID: 16740450. M Greenberg, A Rama, J R Zuba. A Protocol for the Emergency Treatment of Alpha-2 Agonist Overdose using Atipamezole, a Selective Alpha-2 Antagonist. The Internet Journal of Toxicology. 2017 Volume 12 Number ; Johnson, Jewell, et al. “Increasing Presence of Xylazine in Heroin and/or Fentanyl Deaths, Philadelphia, Pennsylvania, 2010–2019.” Injury Prevention, 27, no. 4, Aug. 2021, pp. 395–98 <https://doi.org/10.1136/injuryprev-2020-043968>.

Thank you for reading! For questions, comments, or feedback you can contact the DCEMS office at dcems@countyofdane.com or by calling 608-335-8228. All other staff contact information can be found at em.countyofdane.com/EMS/contactus.