Dane County EMS Newsletter

November 2023

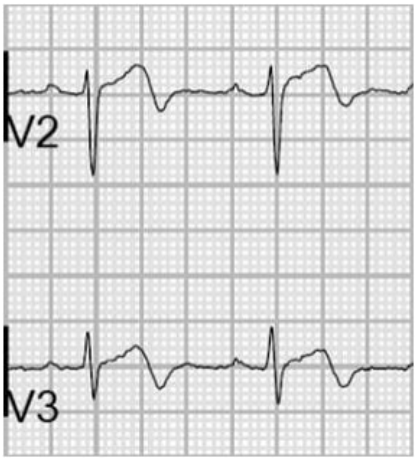
2023 Wisconsin Fire and EMS Mental Health Survey

Professional Fire Fighters of Wisconsin, Professional Fire Fighters of Wisconsin Charitable Foundation, Rogers Behavioral Health Research Center, and several other public safety agencies are asking EMS and Fire personnel to complete a mental health survey by the end of the year. The goal of this survey is to assess the need for mental health treatment and inform proposals that support improved mental health and awareness for first responders. Responses are completely anonymous and should only take about 5-10 minutes to submit. You can complete the survey here. For more information you can visit their website at https://pffwcf.org/2023-wisconsin-fire-ems-mental-health-survey/.

November Viz Quiz

What pattern do the EKG findings represent? Hint: These are 2 variations of the same answer.

A. Anterior ischemia
B. Wellen's syndrome
C. Acute hypokalemia
D. De Winter's T-waves

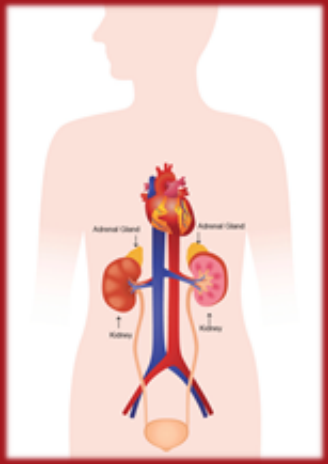


Submit your answers at https://www.surveymonkey.com/r/VQXLDTG
for the chance to win a prize!

October Viz Quiz Follow Up

Answer: D. Adrenal Glands

The adrenal glands are a significant part of the human endocrine system. It is an intricate network of glands that produce interacting hormones, which are responsible for regulating many of our body functions. Epinephrine is synthesized in the medulla of the adrenal gland.



Congratulations to Jenny from Sun Prairie for winning the October Viz Quiz!

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Case Study

You are called to the home of an 82-year-old woman who "felt dizzy." She stood to ambulate to the bathroom, felt profoundly dizzy and lightheaded, and subsequently fell to the ground. She reports landing on her buttocks. She tried to stand again but felt too weak to do so. The patient crawled over to her nightstand and used her cellular phone to call 911. On your arrival, the patient is awake and alert. Her only complaint is low back pain. The patient does not believe she struck her head or lost consciousness. She is NOT anticoagulated. Initial vitals: BP 88/40, p 50, rr 20, O2 sat 99%. Exam: Awake/alert. Lungs clear. Heart bradycardic but regular. BEFAST stroke assessment negative.

What do you do first? What could be the cause?

You place an IV and begin a fluid bolus. Your partner obtains an EKG and places the patient on the monitor. You observe a sinus bradycardia without ST elevation. As you are calling in the report, the patient's repeat BP is 100/60. What happens next?

On ED arrival, the patient remains awake and alert during handoff. As staff disrobes the patient for a secondary trauma survey, the ED provider performs POCUS (point-of-care US) and notes fluid between the liver and kidney. Her next blood pressure is once again 80/40. Another fluid bolus is started and she is taken emergently to CT where a ruptured AAA is confirmed.

Aortic aneurysms are at risk of rupture when they grow beyond 5cm. They can rupture into the peritoneum (instantly fatal) or into the retroperitoneum (50% survival to hospital, overall mortality 80-90%). Surveillance and intervention prior to rupture are the mainstays of treatment. Early diagnosis increases chance of survival. Consider this life-threatening diagnosis in a patient with syncope, hypotension, and back pain. Good IV access and support of blood pressure (along with rapid transport) are your best pre-hospital tools.

Case Vignette

You are called to the scene of an MVA. An unidentified man drove a Ford Explorer into a holding tank at the site of a manufacturing plant. There are several 1000-gallon tanks, some of which store oxygen while others store nitrogen or hydrogen. Based on your observations at the scene, which tank did this patient's Explorer explore? And yes, this was a real case.

The air we breathe is about 78% nitrogen and 21% oxygen. Another 0.9% is argon and 0.04% is CO2. Nitrogen is noncombustible, but is stored in liquid form at -135 degrees Celsius. Oxygen can be stored as either liquid OR gas. Unlike nitrogen, oxygen DOES support combustion. Hydrogen can also be stored as either a gas or liquid, but requires high pressure (5000psi or more).

Case resolution: This patient was found frozen in the driver's seat of his car and declared dead on arrival. He struck the nitrogen tank, causing direct exposure inside his vehicle. There was no evidence of fire at the scene.

Upcoming Events and Training

12/7, 8am-4pm - SCRTAC: Trauma Care Across the Continuum

Located at Epic Campus: Verona, WI. Includes breakfast, beverages, lunch & snack.

Cost is $50 per person to attend.

For more information, go here.

Register at https://www.scrtac.org/product/trauma-care-across-the-continuum-2023/

12/7, 6pm-8:30pm - EMS Holiday Appreciation Event at the Henry Vilas Zoo Lights

Tickets are free, and family is welcome!

RSVP at https://uwmadison.co1.qualtrics.com/jfe/form/SV_8uGlqToJwo4gPSS

12/20 - 6pm, UW Health Monthly Training: Stroke

Register at uwhealth.org/EEN23

HAPPY THANKSGIVING TO ALL WHO CELEBRATE!

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.