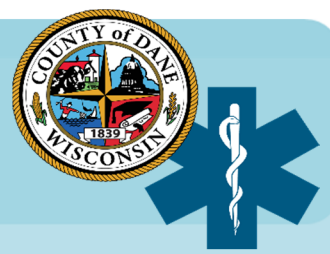


Dane County EMS Newsletter

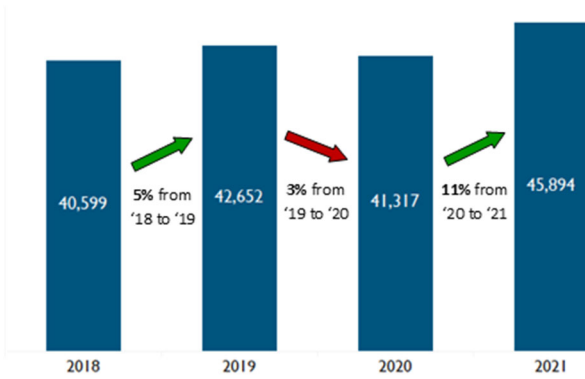
March, 2022



Data Highlight

2021 was the busiest year for EMS responses in Dane County to date. With just under 46,000 ePCR's documented in our system for 2021, there was an 11% increase in response volumes across the system when compared to 2020 (7.6% higher than 2019 for additional comparison). The primary impressions with the highest increases in 2021 were GI/GU, generalized pain, neurologic emergencies (stroke, seizure, etc.),

alcohol/substance use, and cardiovascular emergencies. Thank you for your continued efforts to submit complete and high-quality data reports. The data you submit are used to support and inform county-wide initiatives such as cardiac arrest care, as well as our partners in substance use prevention, fall prevention, traffic safety, and many more!



Updates from the Hospitals

- The UW Health ECMO program is active once more.
- The American Family Children's Hospital ED will be asking for pediatric weights as part of an ongoing study.
- SSM Health has updated their visitor guidelines. To read the full guidelines, go [here](#).
- Reminder to mask patients prior to arrival at an Emergency Department!

March Viz Quiz

You are called onto campus for a 20 year old undergrad with eye pain. The patient reports that she had been drinking alcohol the night before, and that she had vomited "a few" times. She states that she fell asleep with her makeup on and contacts in, and woke up with irritation and blurred vision this morning. Her vision is intact to finger count on your exam, her pupils are round and reactive to light and her extraocular movements are intact.








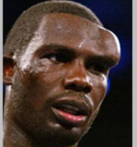
You believe that this patient has a:

- A. Corneal Abrasion
- B. Ruptured Globe
- C. Contact Lens Associated Ulcer
- D. Subconjunctival Hemorrhage

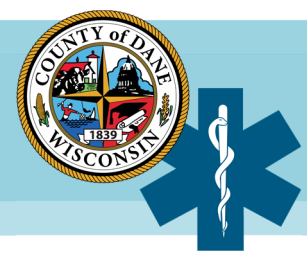


Submit your answers at <https://www.surveymonkey.com/r/HWZNBYS> for the chance to win a prize!

January Viz Quiz Follow-Up

1. Abrasion	2. Sucking Check Wound OR Puncture Wound	3. Avulsion	4. Puncture Wound	5. Contusion	6. Deformity	7. Puncture Wound	8. Hematoma
A. 	B. 	C. 	D. 	E. 	F. 	G. 	H. 

Congratulations to Samantha from Waunakee Area EMS and Sun Prairie EMS for winning the December Viz Quiz!



Case Study

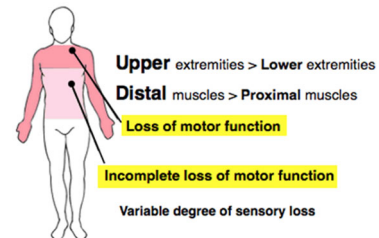
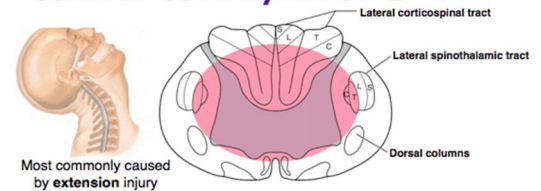
Case: You are called out for an 83 year-old female with a history of Parkinsonism who fell from a standing height at her memory care facility. On your arrival, you find a pleasant elderly female sitting in a chair in her room, complaining of “feeling weak” in her arms and some scattered numbness across her chest and upper back. The staff reports the pt. tripped and fell forward, striking her chin on the tile floor. She did not have a loss of consciousness, was able to get up with some assistance and is ambulating per her normal baseline. You perform a detailed exam of the patient; she is A&O x 2 (self, “Dane County”, “1975”), her face is symmetric. Her grip strength is 3/5 and equal bilaterally and her lower extremities have 5/5 strength throughout. She does not have any tenderness over her cervical, thoracic or lumbar spine. Staff states that she has a baseline tremor from her Parkinson’s, but did not have weakness before her fall. Your partner inquires about her anticoagulation status, and upon hearing that she does not take any blood thinners, encourages you to get a refusal from the POA and get back into service.

This is a classic presentation of Central Cord Syndrome, an injury to the lateral corticospinal tracts (CST) or anterior horn gray matter. It is the most common incomplete spinal cord injury (SCI), comprising 9.0% of adult SCI and 6.6% of pediatric SCI. The age distribution for this injury is bimodal; patients <50 years old are affected by high-impact trauma (MVC, sports injury, diving accident) while patients >50 are more likely to occur from lesser traumatic impact (low-speed MVC, fall from standing). The “classic” injury is an elderly person with a hyperextension injury, who subsequently has more pronounced weakness in the arms than legs. Associated sensory changes may be described as “cape distribution” or “man in a barrel”, affecting the upper extremities and chest most frequently.

Providers should maintain a high suspicion in young patients with significant impact to the head, neck or face. In elderly patients, even minor trauma with hyperextension should raise concern, and any neuro complaint should raise the suspicion for SCI.

Not all patients will need surgical fixation, but if indicated it should happen within 24 hours of injury; spinal motion restriction and transport to a facility with a Spine Surgeon is warranted.

Central Cord Syndrome



Syndrome	Mechanism	Clinical	Prognosis
Anterior cord	Flexion or vascular	Complete loss of motor, pain, & temperature below injury, but retains proprioception and vibratory sensation	Poor
Central cord	Forced hyperextension	Sensory and motor deficit Upper > Lower Extremities	Average
Brown-Séquard	Penetrating trauma	Ipsilateral loss of motor, vibratory sensation, and proprioception with contralateral loss of pain and temperature sensation	Good

<https://www.roshreview.com/blog/rapid-review-central-cord-syndrome/>

Dan J. Spine Trauma. In: Cydulka RK, Fitch MT, Joing SA, Wang VJ, Cline DM, Ma O. eds. Tintinalli’s Emergency Medicine Manual, 8e New York, NY: McGraw-Hill

Case Vignette of the Month

Case Study: You have been paged to a 12B-1 Convulsions / Seizure, Not Alert. Per CAD, mother called for her 2-year-old child because he had a witnessed seizure lasting about 5 minutes. He has a history of cerebral palsy and seizure disorder, and was given 7.5mg of rectal diazepam prior to your arrival. You find a 2-year-old male lying still on the ground on his right side, with vomit around his mouth. He has a strongly palpable brachial pulse, and is noted to be pale and diaphoretic on your first exam. He is breathing spontaneously with shallow effort; his initial pulse ox is 86% on room air and his blood sugar is 160. You note his pupils are equal, round and reactive, and are noted to be deviated up and to the right. After suctioning his airway, his SpO2 improves with blow by oxygen, his lung sounds are clear, his abdomen is soft and the remainder of his exam is unrevealing.

Discussion:

- What should your next treatment be for this patient?
- What are some of the subtle signs that a patient may be having a seizure? Do all patient’s have tonic-clonic movement of the extremities? What are some indicators that a patient may need intervention?
- How does the rectal diastat impact your management of this patient?

Take [this quiz](#) to test your knowledge of the Dane County Protocols!

Upcoming Events and Training

4/21, 6:30-8:30pm - SSM Health Monthly Training: An Introduction to Pre-Hospital Ultrasound

Register at:

<http://bit.ly/ssmemstraining>

4/27, 8am-12pm - Active Shooter Incident Management (ASIM) Basic
Madison Fire Station #12

Register at:

<https://www.surveymonkey.com/r/ASIM>