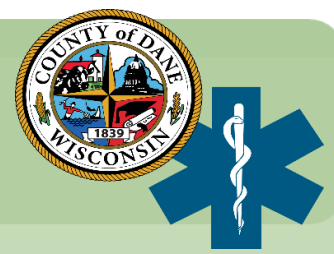


# Dane County EMS Newsletter

May, 2023



## EMS WEEK CELEBRATION EVENT

We want to give our EMS providers a special thank you during EMS Week, 2023! The work you do to serve our community every day is essential. In recognition, we invite you to celebrate with us at Wisconsin Brewing Company on May 21st from 3-5pm. Sugar River Pizza, fountain soda, a bounce house, and more will be provided, so bring your families! Upon entry, you will also be entered to win raffle prizes.



At 4pm, we will be announcing the winner of the Bob Brunning award that recognizes an individual, group, or agency that has demonstrated a pattern of leadership and activities that have culminated in an exceptional improvement of the EMS system. We will also be recognizing those who have met significant milestones working in EMS. **See end of newsletter for those who will be recognized.** We hope to see you there!

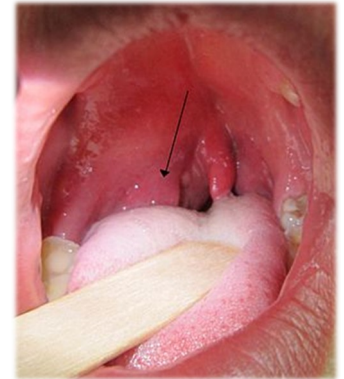
## May Viz Quiz

You are called to transport a 16 year old patient from urgent care to the nearest emergency department for a sore throat. Patient has a quiet voice, is drooling a bit, and complains of difficulty swallowing. Even though it is difficult for him to open his mouth, you get a peek and see this image.

Which of the following is the appropriate diagnosis AND treatment?

- a. Strep throat - antibiotics and Tylenol
- b. Allergic reaction - IV Benadryl and steroids
- c. Mumps - pain relievers and steroids
- d. Ludwig's angina - steroids and OR
- e. Peritonsillar abscess - airway management, IV steroids, antibiotics, incision and drainage in the ER

Submit your answers at <https://www.surveymonkey.com/r/DSYL5YK> for the chance to win a prize!

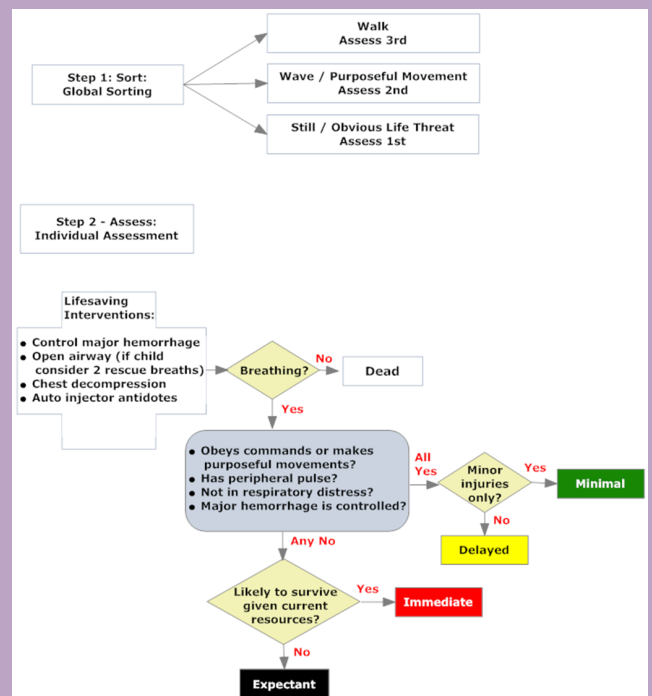


## April Viz Quiz Follow-Up

**Answer: D. 64-year-old male with evidence of blunt trauma to his torso, increased work of breathing and not able to speak in complete sentences, but no hemorrhage, no other obvious trauma. RED (Immediate)**

Here's how to triage the others:

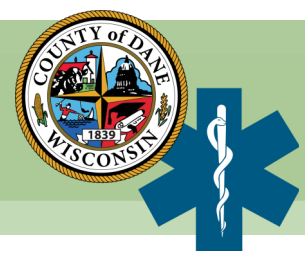
- 38-year-old female with obvious left arm deformity, no serious hemorrhage, crying but ambulatory. **GREEN (Minimal)**
- 6-year-old male, non-responsive, no peripheral pulse, no spontaneous respirations after two attempted rescue breaths. **BLACK (Dead)**
- 16-year-old male sitting on ground, laceration to forehead, obviously confused but able to follow basic commands. **YELLOW (Delayed)**
- 15-year-old female alert, clear speech, following commands but leg is pinned under some of the collapsed structure. **YELLOW (Delayed)** or **GREEN (Minimal)**



Congratulations to Jen from Middleton EMS for winning the April Viz Quiz prize!

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## Case Study

**Case Study:** You are called to a single-family home for a 40-year-old male who is having shortness of breath. As you arrive on-scene, you observe an obese man who is short of breath and clutching a Primatene Mist inhaler. He has difficulty speaking. His wife states that he has been short of breath since the weather changed 3 days ago, not getting any relief from his “inhaler.” The patient feels central chest tightness. No cough or fever noted by family. Initial vitals: BP 100/60, HR 120, RR 36, SpO2 91% on RA. Exam notable for diminished breath sounds throughout all lung fields, no wheezing. Heart is tachy and regular. Narrow-complex sinus tach on monitor. No peripheral edema.

According to the CDC, as of 2020, there are over 25 million cases of asthma, for a 7.8% prevalence in the US population, with over 1.8 million ED visits a year for asthma-related complaints. The death rate is 7 times higher in adults than children! Even though EMS transports for asthma are common, there are challenges. Some pitfalls: BEWARE of patients with symptoms of asthma exacerbation without wheezing. They may not be moving enough air to hear the telltale signs. Think of rising ETCO<sub>2</sub> in this situation, as most asthmatics (especially young people) can exchange oxygen better than they can exhale CO<sub>2</sub>. By the time O<sub>2</sub> sats are falling, the asthma patient is at great risk of decompensating and requiring intubation.

Treat with nebulized albuterol 2.5mg/3ml neb OR 6 puffs on an albuterol inhaler. In addition to albuterol and/or ipratropium, you have several other tools to help this patient. Keep in mind that nebulizers may be less effective in this patient as they are unable to inspire deeply enough for it to exert its effects. Give supplemental O<sub>2</sub> and close monitoring (cardiac monitor, ETCO<sub>2</sub>, pulse ox). Subcutaneous epi also has bronchodilation effects! Onset of action is within 3 minutes. Epi can also be nebulized (1:1000) 1mL into 2mL of saline. Magnesium sulfate IV (2 grams over 20 min) acts on smooth muscles to provide relaxation. This same mechanism can lead to hypotension (if used alone); onset of action is several minutes. Magnesium given prehospital reduces admission rates by 25% in adults. Consider CPAP if the patient will tolerate it. IV steroids (125mg methylprednisolone) will be eventually helpful, but onset of action can be as long as 6 hours. Be sure to identify this patient as critical red in your report and be prepared to intubate if the patient becomes increasingly anxious, air-hungry, or obtunded. Take-home point: never get too comfortable even with common presenting complaints - always be on the lookout for the worst-case scenario.

## Case Vignette of the Month

**Case:** You are called to the home of a 2 year old girl. Parents called because they heard grunting in the child’s room and found her lying in her bed shaking and jerking. On your arrival, you find a nonverbal and unresponsive 2 year old lying in bed with tonic-clonic movement of all four extremities. Her teeth are clenched, but it does not appear that she has vomited. The child feels very warm on palpation. Parents report she has had a cough and runny nose for the past 2-3 days and low-grade fever. There is no known history of trauma and no prior seizures reported.

- Discussion points: What is your first priority or intervention?
- Does the management of this patient change if she has a fever or is afebrile?
- What do you do next if the seizure activity doesn’t stop with your initial measures (i.e. 0.1 mg/kg Midazolam?)
- Take this moment to review the pediatric seizure protocols now so everyone is less nervous when you encounter this situation. Sick children make everyone nervous!

## Upcoming Events and Training

### 5/21, 3-5pm - EMS Week Event

*Wisconsin Brewing Company. Family & friends welcome!*

### 6/6 and 6/7, 8am-12pm; 6/7 1pm-5pm - Active Shooter Incident Management Training

Register at the following: [https://docs.google.com/forms/d/e/1FAIpQLSfY4Y8aFwhXHa170N7-yJ\\_n5fOM\\_Dmxu4an8aXRxDDe3iGqXQ/viewform](https://docs.google.com/forms/d/e/1FAIpQLSfY4Y8aFwhXHa170N7-yJ_n5fOM_Dmxu4an8aXRxDDe3iGqXQ/viewform)

### 6/21, 6pm - UW Health Education Night: Stroke

Register at [uwhealth.org/EEN23](http://uwhealth.org/EEN23)

### 6/30 - Deadline to Submit EMS Renewal Applications

Applications are available in your [E-Licensing](#) account under the “Application” tab. For more information, visit the [Wisconsin 2023-2026 EMS Renewal website](#). For questions or help, contact the [Wisconsin EMS Section](#).