



## Case

You are called to the home of the 74 year old man for confusion. The patient is quadriplegic from a long ago cervical spine trauma. He resides in a private residence with 24 hour care. The caregiver noted today that the patient was confused and slurring his words. Caregiver wonders if the patient is having a stroke. Last known well was on awakening, 6 hours ago. He mentioned “not feeling well” for the past 2 days, with diminished appetite and nausea. On scene, you encounter a bed-bound man who is slow to respond but overall can follow some commands. He has flaccid paralysis of all extremities. Initial vitals: BP 100/60, HR 95, O2 sat 92%, resp rate 24. What are you thinking at this point? What would you do next? In this case, EMS proceeded to check a glucose (46). One partner attempted an IV, unsuccessful. To give oral glucose, you will literally need to feed the patient by hand. This was done, and repeat glucose is...also 46. On second attempt, IV was started and D10 administered, 125 mL. This was nearing completion on ED arrival. Repeat glucose 50 at time of signoff to ED provider, mental status unchanged, still lethargic and confused. For your consideration: 1. What are your options for treating hypoglycemia? 2. Is there anything else to consider in this patient? 3. Would you stroke activate when you cannot perform a BE-FAST assessment? 4. Would you consider any other interventions?

## August Viz Quiz

This is the monitor tracing for the patient in the case presentation. What is your differential?

- a. LBBB
- b. Slow V Tach
- c. Hyperkalemia
- d. 3rd degree heart block
- e. Acute MI



Submit your answer at <https://www.surveymonkey.com/r/DLPDNTY>

## July Viz Quiz Answer

Answer: C. Categorize as “immediate” (red)

It is reasonable to consider a pneumothorax in a patient like this, which carries a risk of developing a tension pneumothorax. Therefore, a needle decompression would be indicated. However, given this is an EMT-B, NCD is outside of their scope of practice and therefore cannot be done. Outside of some airway repositioning, there are really no other LSIs that can be done in this case, so the patient should be classified as “immediate” (red) and move on. Administering oxygen and/or a duoneb is not necessarily feasible in an MCI of this caliber as they are more resource intensive (A and B).

Congratulations to Kyle from Madison Fire for winning the July Viz Quiz prize!

# Dane County EMS Newsletter

August, 2024



## *Case continued...*

Hypoglycemia should always be a primary consideration in confused, lethargic, or ill-appearing patients. We all know to get a blood sugar and consider it part of the patient's initial vital signs. But hypoglycemia has many etiologies and thus one intervention may not cure all patients. In the awake patient with good airway protection, oral glucose is an easy option. Glucose tablets will raise blood sugars within 15 minutes and last about an hour. Dietary sugars (think candy bar) may take longer, 30 minutes on average. AND it is less effective in patients with depleted glucose stores (think finish line of a triathlon, or a malnourished elderly patient). The ubiquitous D10 has 25 grams of total glucose in the bag. Once infused, average of 20 minutes to raise blood levels.

Etiologies for hypoglycemia include: Improper insulin administration, poor oral intake or malnutrition, sepsis, renal failure, liver failure, endocrine disorders (endocrine tumore, Addison disease, Graves' disease, etc), toxicologic (alcoholic, salicylate toxicity, beta-blocker overdose). Prognosis: About 30% of adults with diabetes who experience a hypoglycemic episode requiring emergency care will die within 3 years of the presenting incident! In our case study, this patient had further vitals taken upon ED arrival. Temp was 96.8, ETCO2 was 20, and subsequent BP was 88/50. These abnormal vitals, along with the EMS vitals, meet criteria for sepsis. This patient was septic and evolving into septic shock. Of note, in the current DCEMS protocols for hypoglycemia, sepsis is offered for consideration if mental status does not improve. In this case, a stroke alert could have lead to a misuse of resources and a delay in proper diagnosis and treatment. Once a sepsis alert was called, the patient received IV fluid boluses and a continuous infusion of dextrose, which took over 2 hours before glucose levels rose above 70. He was admitted, treated with broad-spectrum antibiotics and eventually improved. His source was a blocked Foley catheter, which had no urine in the bag at the time of transport.

### Protocol Quiz

Test your knowledge on the Dane County EMS Protocols by completing the [August Newsletter Protocol Quiz](#). [Email us](#) for the answers and where to find them in the protocols!

### Upcoming Events and Training

**August 31st, 8am - EVOC Driving Range, 2302 Fish Hatchery Rd.**

Register [here](#)

**September 5th, 6-8pm - SSM Health Monthly Training**

**From Sidelines to Frontlines: Managing the Collapsed Athlete**

Link to be posted in SSM Health ER

**September 18th - CEVO V Lecture (Virtual)**

Register [here](#)

**September 18th - UW Health Pediatric Trauma**

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