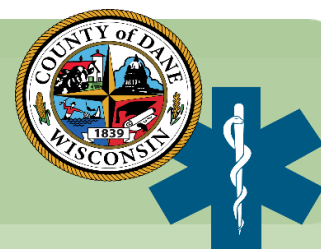


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July Viz Quiz

The following patients screened positive on BEFAST for a possible stroke. Calculate a FAST-ED score for each of them. Which of these patients would score a 4 or greater?

Case 1: 67-year-old right-handed male developed sudden onset right arm weakness while eating breakfast at 6:30AM with his wife

Case 2: 58-year-old male arrived at work at 7AM. Co-workers note he seemed normal upon arrival to work. He was found pacing the office at 9:00AM and when co-worker attempted to find out what was wrong, his speech was gibberish.

Case 3: 63-year-old female last talked to her daughter on the phone yesterday morning at 10AM and she seemed normal. When she didn't answer the phone at 3PM today, her daughter called 911 to have them check on her. She was found in bed, not speaking at all with right-sided paralysis and a right gaze preference.

- a. All three cases
- b. Cases 1 and 2
- c. Cases 2 and 3
- d. Cases 1 and 3
- e. Case 2 Only
- f. Case 3 Only
- g. None

See the following pages for more information on FAST-ED and how to calculate scores.

Submit your answers at <https://www.surveymonkey.com/r/GL8JKX6> for the chance to win a prize!

June Viz Quiz Follow Up

Answer: A. Orbital Floor Fracture with Entrapment

- Fractures of the floor of the orbit, sometimes known as “blowout fractures” typically occur when a small round object (i.e. a baseball) strikes the eye
- A significant consequence of fractures of the orbital floor is entrapment of the inferior rectus muscle and/or orbital fat. Ischemia and subsequent loss of muscle function may occur either because of entrapment of muscle within the fracture fragment (more likely in children) or as the result of swelling and hemorrhage of muscle and extraocular fat that have prolapsed through the fracture into the maxillary sinus.
- Injury to the infraorbital nerve may result in decreased sensation along the cheek, upper lip, or upper gingiva
- First priority in the evaluation of patients who may have orbital fractures is to identify life-threatening and serious associated injuries. Patients with possible C-spine injury should undergo spinal motion restriction until further assessment can happen.
- Key questions for patients who are alert and able to respond include: Where does it hurt? Do you have blurry, double, or decreased visions? Do you have difficulty with eye movement or double vision in a specific direction? Do you have numbness to a particular region of your face?
- The eye should be evaluated with visual acuity and performed as quickly as possible, because soft tissue swelling may make it difficult to open the eye later.
- Be cautious not to put pressure on the eye, because if the patient has a ruptured globe this may result in extrusion of intraocular contents.
- Pupil reactivity, size, and shape, as well as extraocular movements should be evaluated.
- CT is the most common imaging modality for evaluating significant facial trauma and concern for injury
- Patients with injuries concerning for globe injury, decreased visual acuity, severe pain, nausea and vomiting not improving with medications, or patients with evidence of orbital compartment syndrome should preferentially be transported to a center with Facial Trauma and Ophthalmology subspecialists.

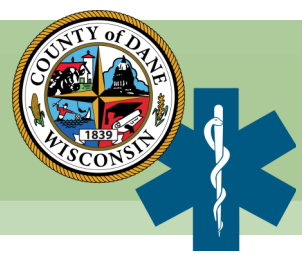


Citation: <https://www.uptodate.com/contents/orbital-fractures>

Congratulations to Lisa from Deer-Grove EMS for winning the June Viz Quiz prize!

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Strokes: BEFAST vs. FAST-ED

What is the difference between a pre-hospital stroke screen (BEFAST) and a stroke severity score (e.g. FAST-ED)?

- A stroke screen refers to a tool used to identify if a patient may be having a stroke. These are typically positive or negative. Examples include: Cincinnati Prehospital Stroke Scale (CPSS), Face-Arm-Speech Test (FAST), LA Prehospital Stroke Scale (LAPSS), or what we are currently using, the BEFAST scale.
- A stroke severity score refers to a numerical scale used to determine the severity of the neurologic deficits once a stroke is suspected in order to identify patients with severe symptoms due to a large vessel occlusion (LVO that may benefit from endovascular therapy (thrombectomy).
- There are several available tools and no single tool has been shown to be the best.

Why have we shifted from utilizing the Cincinnati stroke screen to the BEFAST?

- Stroke screens like CPSS, FAST, LAPSS do well identifying most stroke patients, but may miss up to 40% of those with posterior circulation events, especially those with ataxia or visual disturbances.
- The addition of the “B” and “E” to assess balance/coordination and visual changes or disturbances increased the likelihood of capturing the patients with posterior circulation events.

When should we do a FAST-ED assessment?

- A stroke screen (BEFAST) should always be performed first.
- If the BEFAST is POSITIVE, then consideration to perform a FAST-ED would be warranted to better assess for the severity of stroke symptoms.
- Our local stroke programs are assessing how the FAST-ED scores may impact local destination decision-making and if and when bypassing acute stroke-ready or primary stroke centers to go to thrombectomy capable facilities is most appropriate for our patients. **Watch for further information coming soon!**
- For now, if a FAST-ED scale is performed, please share the score in your radio report and defer to the receiving facility as to if that score will impact recommendations.

Should we still call a STROKE ALERT if the patient’s symptoms have resolved (e.g. suspect a TIA)?

- Patients with stroke-like symptoms that have since improved or resolved are at high risk for recurrence and may even still be candidates for thrombectomy.
- Because of this, our local stroke programs are advocating that we call a STROKE ALERT for all patients with stroke-like symptoms with a last known normal in the past 24 hours (even if symptoms are improved or resolved) to help minimize delays to further care.

Once a patient screens positive for a possible stroke, what should we be focusing on prehospital to optimize their outcomes?

- Time is brain! Focus on minimizing delays to definitive care (thrombolytics and/or thrombectomy)
- Don’t forget your ABCs...optimize oxygenation, ventilation, and hemodynamics (hypoxia or hypotension can decrease cerebral perfusion and be the cause or exacerbate stroke symptoms). Consider elevating the head of the bed to 30 degrees if appropriate.
- Consider stroke mimics such as hypoglycemia (obtain a blood glucose) and arrhythmias (don’t forget the 12-lead!)
- Placement of an IV is really appreciated as it minimizes delays to obtaining imaging at the hospital.
- Make sure to obtain and document your last known well time (specific date and time) as this is critical to determining treatment options.
- For more information, watch the section on BEFAST from the [Dane County EMS Protocol Updates training video](#).

Epi Use for Cardiac Arrests

In light of the epinephrine shortage and ongoing research supporting our reevaluation of the standard use of epinephrine in cardiac arrest — the DCEMS medical advisors recommend consideration for maximum dose of 3mg of epinephrine in non-traumatic OHCA. This recommendation should be reviewed with your agency medical director prior to implementation. We will be reviewing the use of epinephrine in OHCA in depth with the next protocol iteration.

Upcoming Events and Training

8/16 - 6pm, UW Health Monthly Training: Emergency Care for Large Burns

Register at uwhealth.org/EEN23

8/17 - SSM Health Monthly Training: Positioning for Success - Airway Management with Bob Barrix

6-7pm Virtual, or 7-8pm In-Person Only

9/21 - 6-8pm, SSM Health Monthly Training: Harm Reduction with Opioid Prevention Specialist Kailey Peterson

Let's BEFAST and rapidly identify possible strokes!

B

Balance: Did the person suddenly lose balance or coordination or have sudden onset dizziness?

E

Eyes: Does the person have a sudden change in vision such as blurred or double vision or loss of vision in one or both eyes?

F

Face: Ask the person to smile. Do you see any asymmetry of face or facial droop?

A

Arms: Ask the person to raise both arms. Does one arm drift downwards?

S

Speech: Ask the person to repeat a simple sentence. Are the words slurred? Can he/she repeat the sentence correctly?

T

Time: Time is of the essence! Determine last known normal time (actual time) and minimize scene time.

F

Facial Palsy

Normal or minor paralysis (0)
Partial or complete paralysis (1)

A

Arm Weakness

No drift (0)
Drift or some effort against gravity (1)
No effort against gravity or no movement (2)

S

Speech Changes (Expressive and Receptive Aphasia)

Ask them to name 3 common items
2-3 correct (0) 0-1 correct (1)
Ask them to hold up two fingers (or similar simple command)
Follows command (0) Unable to follow command (1)

T

Time of last known well (utilize specific date and time)

E

Eye Deviation

Ask them to follow your finger to both sides with only their eyes
No issues (0)
Difficulty looking to one side (1)
Gaze is fixed to one side (2)

D

Denial (failure to recognize weakness)

Ask if they are having any weakness anywhere?
Answer appropriately (0) Does not recognize weakness (1)

Neglect (failure to recognize self)

Holding affected arm, ask whose arm is this?
Answer appropriately (0) Does not recognize self (1)