

## **Case 2840**

You are working in a community hospital emergency department. A 45-year-old male is brought by Emergency Medical Services actively seizing despite having received a total of midazolam 20mg IV. He is restrained supine on the ambulance stretcher, foaming and gurgling at the mouth.

Nursing staff place him on a monitor and obtain vital signs.

**Question 1** What instruction should you give your two nurses in positioning this patient on the stretcher? Give **ONE** answer.

Lateral decubitus position / seizure pads / recovery position

**Question 2** What should be the first investigation you order? List **ONE**.

Capillary glucose

**Question 3** His wife accompanied the patient in the ambulance. She tells you that the patient does not use ethanol or drugs. What medications commonly available as second line agents in the emergency department could you use next to terminate the seizure activity? List **THREE**.

Phenytoin / Fosphenytoin  
Levetiracetam (Keppra)  
Valproic acid  
Phenobarbital

**Question 4** You attain further history from the patient's wife. He is taking atorvastatin, bisoprolol and a new medication for recently diagnosed tuberculosis. What should be your next treatment? List **ONE**.

Pyridoxine / Vitamin B6

**Question 5** The patient continues to seize. You decide to intubate. What should be your choice of medication at this point? List **TWO**.

Propofol  
Ketamine

### **Case 2847**

An 8-year-old male presents to the emergency department with a 4-day history of abdominal pain. Initially the pain was periumbilical but is now in the right lower quadrant. He presents today because he has been vomiting.

His vital signs are:

Temperature:	38.5°C oral
Pulse:	88/minute
Resp.:	15/minute
BP:	90/66 mm Hg
O <sub>2</sub> sat:	99 % (room air)

The nurses have started an IV and initiated fluid replacement with normal saline.

#### **Question 1**

In addition to appendicitis, what other conditions should you consider in the differential diagnosis? List **FOUR**.

Urinary tract infection  
Testicular torsion  
Mesenteric adenitis  
Inguinal hernia  
Meckel's diverticulum

#### **Question 2**

Other than blood tests, what investigations should you order? List **TWO**.

Urine analysis  
(Formal) ultrasound

Do not accept POCUS

#### **Question 3**

Other than antibiotics, what medications from different classes, should you consider in treating his symptoms? Include the drug and route. List **THREE**.

Acetaminophen PR  
Ondansetron or dimenhydrinate IV  
Ketorolac IV  
Hydromorphone / fentanyl / morphine IV

### Case 2863

A 36-year-old G1T0 who is 11 weeks pregnant has been experiencing exertional dyspnea over the last 4 days. She presents today because of a syncopal episode. She denies having any cough, fever, or PV bleeding.

Her past medical history includes an appendectomy 2 years ago. She takes a daily multivitamin.

Her vital signs are:

Temperature:	37.6°C oral
Pulse:	112/minute
Resp.:	19/minute
BP:	130/84 mmHg
O <sub>2</sub> sat:	92% (room air)

Weight: 60kg

Her ECG demonstrates normal sinus tachycardia.

#### Question 1

Other than PE, what are the top differential diagnoses for this patient? List **THREE**.

- Exercise induced reactive airway disease
- Pneumonia
- Covid / viral syndrome / bronchitis

#### Question 2

What familial thrombophilia conditions would increase the risk of thromboembolism? List **THREE**.

- Protein C Deficiency
- Protein S Deficiency
- Factor V Leiden
- Antithrombin (III)
- Prothrombin Gene Mutation

#### Question 3

Blood tests are ordered at triage. Does a negative D-dimer rule out venous thromboembolism in this patient? Give **ONE** answer.

No

#### Question 4

How should venous thromboembolism be treated in the 1st trimester of pregnancy (include drug and dose)? List **ONE**.

- Dalteparin 12 000 U per day (200 Units/kg daily)
- Dalteparin 6000 U BID (100 Units/kg BID)
- Enoxaparin 60 mg BID (1mg/kg BID)
- Tinzaparin 10 500 U per day (175 U/kg daily)
- Unfractionated Heparin 80 Units/kg bolus (4800 Units)