AHD Questions 7/23/2024

1. A 58-year-old man is evaluated in the emergency department for fever, headache, and stiff neck. The fever began 2 days ago; the headache and stiff neck were present on awakening today and have become severe. Two weeks ago, he was diagnosed with trigeminal neuralgia, and carbamazepine therapy was initiated.

On physical examination, temperature is 38.7 °C (101.7 °F), blood pressure is 110/70 mm Hg, pulse rate is 110/min, and respiration rate is 18/min. Nuchal rigidity is present, but the remainder of the neurologic examination is otherwise normal. He has no papilledema. Petechiae and ecchymoses are noted over the lower extremities.

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| *Laboratory studies:* |
| Activated partial thromboplastin time  | 36 s |
| Haptoglobin  | Normal |
| Hemoglobin  | 12.5 g/dL (125 g/L) |
| Leukocyte count  | 18,100/μL (18.1 × 109/L) |
| Platelet count  | 30,000/μL (30 × 109/L) |
| Prothrombin time  | 11.5 s |
| Lactate dehydrogenase  | Normal |

A peripheral blood smear reveals decreased platelets and normal erythrocyte morphology. A direct antiglobulin test is negative.

Carbamazepine is discontinued. Blood cultures are obtained. Dexamethasone and empiric antibiotics are initiated for presumed bacterial meningitis.

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Which of the following is the most appropriate next step in management?

1. Lumbar puncture
2. Plasma exchange
3. Platelet transfusion
4. No additional interventions

2. A 68-year-old man is evaluated for a transfusion reaction. He was hospitalized for acute upper gastrointestinal bleeding. While receiving his first unit of packed red blood cells, he developed fever, dyspnea, and flank pain 15 minutes into the transfusion. The transfusion was stopped by the nursing staff. His only medication is omeprazole.

On physical examination, temperature is 38.3 °C (100.9 °F), blood pressure is 80/40 mm Hg, pulse rate is 120/min, and respiration rate is 18/min. Oxygen saturation  is 96% breathing ambient air. Cardiopulmonary examination reveals clear lungs, normal heart sounds, and low central venous pressure.

Inspection of a collected urine specimen reveals a pink coloration.

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Which of the following is the most likely diagnosis?

1. Acute hemolytic transfusion reaction
2. Allergic reaction
3. Transfusion-associated circulatory overload
4. Transfusion-related acute lung injury

3. A 58-year-old woman is evaluated in follow-up after her third hospitalization for severe dyspnea in the past 6 months. She has pulmonary arterial hypertension and stage G4 chronic kidney disease. During the visit, she describes a progressive decline in her functional status. Her resuscitation status is listed as “full code” in her discharge summary, but she has noted in previous meetings that she does not want to be a “vegetable” if she has an incurable disease. Medications are bumetanide, aspirin, apixaban, and treprostinil. She is on supplemental oxygen at home.

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Which of the following is the most appropriate next step in eliciting this patient's goals of care?

1. Document patient preferences
2. Explain that her prognosis is limited
3. Explore what she knows about her illness
4. Readdress the patient's resuscitation preferences

4. A 63-year-old man with recent elective right inguinal hernia repair comes to the emergency department with pain and swelling of the right thigh.  The pain began the night before and he could not sleep well despite taking oxycodone and acetaminophen.  The patient has mild hypertension and type 2 diabetes requiring daily long-acting insulin.  He also suffers from resistant fungal infection of the toenails.Bottom of Form

His temperature is 38.4° C (101° F), blood pressure is 110/72 mm Hg, and pulse is 124/min and regular.  His lungs are clear to auscultation.  A faint systolic murmur is heard at the base.  His abdomen is soft and nontender.  The surgical incision looks clean with minimal amount of gray discharge.  The right inner thigh has a large area of erythema and swelling that is very tender on superficial palpation.  Several small vesicles containing pink fluid with surrounding purpura are also present.

Laboratory results are as follows:

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| Hemoglobin | 18.0 g/dL |
| Hematocrit | 50% |
| Platelets | 90,000/µL |
| Leukocytes | 24,800/µL |
| Creatinine | 2.1 mg/dL |

Which of the following is the best next step in management of this patient?

1. Duplex ultrasound of the lower extremities
2. Intravenous penicillin G and metronidazole
3. Surgical consultation
4. Transesophageal echocardiogram
5. Valacyclovir

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