Pre-work 8/15/2023:

MKSAP questions:

A 74-year-old man is evaluated in the emergency department for a 24-hour history of headache, stiff neck, fever, and altered mental status.

On physical examination, temperature is 39.1 °C (102.4 °F), blood pressure is 100/68 mm Hg, pulse rate is 124/min, and respiration rate is 17/min. The patient has a score of 12 on the Glasgow Coma Scale. Neurologic examination is nonfocal.

Cerebrospinal fluid studies reveal a leukocyte count  of 2354/µL (2354 × 106/L) with 90% neutrophils, glucose  level of 17 mg/dL (0.9 mmol/L), and protein  level of 295 mg/dL (2950 mg/L).

Gram stain of the cerebrospinal fluid is negative, and a culture is pending.

CT of the head without contrast shows no intracranial lesions but does reveal pansinusitis.

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Which of the following is the most appropriate empiric therapy?

1. Vancomycin, ampicillin, and ceftriaxone
2. Vancomycin, ampicillin, ceftriaxone, and dexamethasone
3. Vancomycin and ceftriaxone
4. Vancomycin, cefepime, and acyclovir

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A 62-year-old woman undergoes preoperative evaluation for total hip arthroplasty. Medical history is notable for diabetes mellitus, osteoarthritis, and liver transplantation 7 years ago for hepatitis C–related cirrhosis. Medications are tacrolimus, mycophenolate, metformin, and acetaminophen.

On physical examination, vital signs are normal. She has limited active right hip range of motion, but physical examination findings are otherwise normal.

Microscopic urinalysis results show 5-10 erythrocytes/hpf, 10-20 leukocytes/hpf, and 3+ bacteria.

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Which of the following is the most appropriate management of this patient's bacteriuria?

1. Cancelation of surgery
2. Extended surgical antibiotic prophylaxis postoperatively
3. Presurgical trimethoprim-sulfamethoxazole
4. Urine culture and sensitivity
5. No further management

A 45-year-old woman is evaluated in the emergency department for a bite on her hand sustained several hours earlier; the bite is from a toddler in her day care class. Medical history is significant for type 2 diabetes and anaphylactic reaction to penicillin. She received the tetanus toxoid, reduced diphtheria toxoid, and acellular pertussis vaccine (Tdap) 1 year ago. Medications are metformin and empagliflozin.

On physical examination, vital signs are normal. A few tiny puncture wounds with minimal erythema are noted over the dorsum of the left hand.

Radiographs of the left hand reveal no evidence of a foreign body, gas, or bone involvement. The wound is irrigated and evaluated by a surgical hand expert, and no surgical intervention is required.

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Which of the following is the most appropriate treatment?

1. Amoxicillin-clavulanate
2. Levofloxacin and metronidazole
3. Tetanus vaccination
4. Observation
5. This is the definition of neutropenic fever:
6. These are the 2 treatment options recommended for first episode of c. diff infection:
7. List 3 options that can be used for prophylaxis against pneumocystis pneumonia.

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