

1. What is this client's primary diagnosis? Discuss the differentials and rationales that helped you to clarify or confirm the primary diagnosis.

The primary diagnosis for this patient is bacterial meningitis. Three differentials for this patient were subarachnoid hemorrhage (SAH), sepsis, or encephalitis.

- A. Subarachnoid hemorrhage: The patient came in with a severe headache, neck stiffness, vomiting and photophobia which are all positive signs of a SAH. I was able to rule this diagnosis out because the headache in a SAH is typically sudden, while this patient's progressed over several hours.
 - B. Sepsis: The patient came in with fever, hypotension, tachycardia and vomiting which are all positive signs of sepsis. I was able to rule this diagnosis out because there was no evidence of respiratory distress or urinary symptoms, and the rest of the exams including cardiac and abdominal were normal, making this diagnosis less likely.
 - C. Encephalitis: The patient came in with fever, neck stiffness, vomiting and fatigue which are all positive signs of encephalitis. I was able to rule this diagnosis out because the patient was oriented, and typically in encephalitis the patient is disoriented and confused, and due to the evidence of photophobia, I knew this diagnosis was less likely.
- 2. What is the most appropriate treatment plan for this client in the emergent setting according to the latest clinical practice guidelines/standard of care? What is the most appropriate treatment plan if the client is in the inpatient setting?**

According to Carter & McGill (2022) the initial treatment of bacterial meningitis is to stabilize the patient using the ABC approach. This starts with airway and breathing, maintaining a SpO₂ of greater than 92% and securing IV access and starting fluid resuscitation. With fluid resuscitation, it is important to monitor this patient urinary output as well. After the immediate priorities, we need to do blood cultures, CBC, CMP, ABGs, lactic acid, urinalysis and culture, and possible lumbar puncture. During the time of blood draws, we should begin antibiotic therapy, ensure the blood cultures are drawn prior to the start of antibiotics. In this case, a broad spectrum antibiotic like Ceftriaxone should be used or vancomycin with meropenem for penicillin allergy. We will also use an IV steroid, like dexamethasone to help reduced inflammation. During this time, we can administer analgesia for headaches, antiemetic for nausea or vomiting and antipyretic for fevers. This patient will be admitted to the intensive care unit (ICU) for monitoring.