

AHCA/NCAL Clinical Scenario Teaching Tool – Lab Testing for Infections

Clinical Scenario – Lab Testing for Infections

Scenario 1

Mrs. Leopold is a 97-year-old resident of Sunny Acres Health Care Center. She is dependent on staff for her mobility due to advanced rheumatoid arthritis. She is cognitively alert and oriented to time, place, person and situation. She is continent of bowel and bladder, although she does need staff assist to use the bathroom. The nursing assistants have reported that for about the last 3 days her morning urine has been very dark and foul smelling. The nurse assesses her and finds there is no urgency, frequency, pain, incontinence or fever. But she is not acting the same and seems a bit more confused. Mrs. Leopold tells the nurse that she is probably not drinking enough fluids, as she has a difficult time holding the glass with her arthritis. The nurse places a call to the provider to ask for a ua/uc, due to the foul-smelling urine and slight change in her mental status. The laboratory that the specimen was sent to has started performing the polymerase chain reaction (PCR) test for all urine analyses and cultures.

Questions

1. **Older adults with foul-smelling urine and non-specific symptoms such a change in behavior should have a urine analysis and culture to rule out UTI.**
 - a. True
 - b. False
2. **How should she interpret the results? (Check all that apply)**
 - a. Diagnosis UTI and call the physician for antibiotics
 - b. Possible contamination
 - c. Asymptomatic Bacteriuria
 - d. Inconclusive results and order repeat test
3. **The PCR has detected three different organisms and recommends the use of two broad spectrum antibiotics. The provider should:**
 - a. Order the recommended antibiotics
 - b. Order the use of one of the antibiotics
 - c. Encourage staff to hydrate and not order an antibiotic
 - d. None of the above

Scenario 2

Mrs. Thompson, an 82-year-old resident at Sunnyvale Nursing Home, has experienced two loose stools over the past 24 hours with no apparent cause. She exhibits no fever, abdominal pain, or cramping. She has not had a change in medication nor been hospitalized recently. Concerned about a potential *Clostridioides difficile* infection (CDI), a nurse called the on-call provider who orders a nucleic acid amplification test (NAAT) for *C. difficile*. The laboratory reports a positive NAAT result, leading the primary care provider to prescribe oral vancomycin and initiate contact precautions.

Questions

4. **Was the *C. difficile* test ordered appropriately?**
 - a. Yes, because the resident had loose stools
 - b. No, because she did not have ≥ 3 unformed stools in 24 hours or other CDI symptoms
 - c. Yes, because NAAT is the most sensitive test available
 - d. No, because stool testing should not be performed for mild diarrhea without further assessment
 - e. No, because she did not have ≥ 3 unformed stools in 24 hours or other CDI symptoms

5. **While waiting for test results to return, you should do the following (Check all that apply)**
 - a. Place the person in contact isolation
 - b. Start treatment with either flagyl or vancomycin
 - c. Place sign on door indicating contact precautions
 - d. Do nothing until the diagnosis is confirmed