

## Case Study and Questions

### Scenario:

On January 14, a 79-year-old female patient was admitted to an acute care hospital from a long-term care facility after experiencing a fall and a right-sided open reduction internal fixation on the same day. Of note, the patient's chronic indwelling urinary catheter was traumatically removed during the fall and was replaced in the ER prior to surgery.

On January 16 at 12:10 p.m., nursing documents the patient developed altered mental status; additionally, indicates the surgical site was clean, dry and intact. The physician is contacted and orders urinalysis and two sets of blood cultures. The urinalysis and initial blood culture are collected at 1:00 p. m. with subsequent blood culture collected at 1:15 p.m.

The urinalysis reveals: positive for leukocytes and nitrites, with trace blood by dipstick; microscopic analysis visualized moderate bacteria. The urine specimen is reflexed to a urine culture. Due to a laboratory accident, a request is made for recollection of a urine sample for culture; this new specimen is not collected until January 17.

Physician started the patient on sulfamethoxazole trimethoprim on January 17 for suspected urinary tract infection (UTI).

Late in the day on January 17, the two sets of blood cultures collected on January 16 result positive for *E. coli*. The urine culture collected January 17 results on January 18 as > 100,000 Colony Forming Units (CFU)/ml of *E. coli*.

The patient newly complains of left-sided lower back pain on January 25 and another urine specimen is collected/submitted for culture. This specimen is resulted as > 100,000 CFU/ml *Klebsiella oxytoca* and > 100,000 CFU/ml *Candida* species on January 27.

### Question Title

**1. What is the infection window period (IWP) for the first diagnostic test?**

- a. January 13 - January 19
- b. January 14 - January 18
- c. January 14 - January 20

### Question Title

**2. What is the site-specific event identified during the first five days of admission?**

- a. Symptomatic Urinary Tract Infection 1a HAI
- b. Symptomatic Urinary Tract Infection 1b present on admission (POA)
- c. Asymptomatic Bacteremic Urinary Tract Infection (ABUTI) POA
- d. Catheter-associated ABUTI HAI

**Question Title**

**3. What is the date of the event?**

- a. January 16
- b. January 17
- c. January 18

**Question Title**

**4. What event would be identified based on the January 25 findings?**

- a. No event, the culture results are unacceptable
- b. SUTI 1a included in UTI Repeat Infection Timeframe (RIT), not eligible for reporting
- c. New event SUTI 1a, eligible for reporting
- d. None of the above