



UTI Case Studies for LTC Facilities

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Case 1

- A 70 YO resident with end stage pancreatic cancer and liver and bone mets is admitted to the nursing home with advance directive for comfort care and antibiotics only. A Foley catheter, peripheral IV and nasal cannula are placed that day.
- Day 4: resident has fever of 38°C and has suprapubic tenderness; IV ampicillin started after urine obtained for culture.



Case 1

- Day 5: difficulty breathing; CXR = infiltrate at LLL base.
- Day 6: urine culture results = 10^5 CFU/ml *E. coli*.
- Day 7: WBC = 3,400; patchy infiltrates in both lung bases; continued episodes of dyspnea; rales noted in LLL.
- Day 11: resident expires.

3



Case 1

Does this resident have a UTI? If so, what type?

1. Yes, SUTI, criterion 1a
2. Yes, SUTI, criterion 2a
3. Yes, CA-SUTI
4. No UTI, does not meet fever criteria

4



Case 2

- An 84 YO resident returns to the nursing home on post-op day 7 following exploratory lap; the next day he is noted to be febrile (38.9°C) and complains of diffuse abdominal pain.
- WBC elevated at 19,000. A straight catheter urine specimen was collected. UA results 2+ protein, positive nitrite, 2+ leukocyte esterase, WBC TNTC, and 3+ bacteria.
- Culture results: 10,000 CFU/ml *E. coli*.
- Abdominal pain seemed localized to the surgical site area.

5



Case 2

Is this a UTI? If so, what type?

1. No UTI
2. Yes, ABUTI
3. Yes, CA-SUTI
4. Yes, SUTI, criterion 1a

6



Case 3

- An 84 YO resident admitted 2 years ago has an indwelling catheter placed; no signs or symptoms of infection.
- Day 9 after insertion: CBC shows WBC of 15,000; temperature is 99°F (baseline for this resident). Pan cultures are obtained, and both blood and urine cultures grow *Streptococcus pyogenes*—urine > 10⁵ CFU/ml.

7



Case 3

Is this a UTI? If so, what type?

1. No UTI
2. Yes, ABUTI
3. Yes, SUTI, criterion 3a
4. Not sufficient information to determine

8



Case 3

What if this same resident's temperature had been 100°F in the morning and 101°F in the afternoon? What, if any UTI, is this?

1. ABUTI
2. SUTI, criterion 1a
3. SUTI, criterion 3a
4. CA-SUTI

9



Case 4

- A 75 YO long-time female resident develops a fever of 38.9°C. She had a Foley catheter placed 4 days ago, and now has suprapubic tenderness.
- Urine culture grows $> 10^5$ CFU/ml *Klebsiella pneumoniae*.

10



Case 4

Is this a UTI? If so, what type?

1. Yes, CA-SUTI
2. Yes, SUTI, criterion 1a
3. No UTI
4. Not sufficient information to determine

11



Case 5

- 9/1: A 73 YO male is admitted to the nursing home from the hospital following a cerebral vascular accident. He is ventilated, has a central line, and a Foley catheter in place at the time of admission. Resident reacts only to painful stimuli.
- 9/2: WBCs slightly elevated at 12,000. Temp is 37.4°C, urine is cloudy. Lungs clear.

12



Case 5

- 9/3: WBC 15,800, temperature is 37.6°C. Urine unchanged, no suprapubic or costovertebral angle pain noted. Blood, endotracheal and urine cultures collected. Temp. is 37.8—38.0°C throughout the day.
- 9/4: Temperature remains at 37.8°C. Blood and endotracheal cultures negative; urine culture grows 100,00 CFU/ml *E. faecium*.

13



Case 5

Is this a UTI? If so, what type?

1. No UTI
2. Yes, ABUTI
3. Yes, SUTI, criterion 1a
4. Yes, CA-SUTI

14



Case 5

Supposing the Foley catheter were removed on 9/3. Does the resident have a UTI? If so, what type?

1. CA-SUTI
2. No UTI
3. SUTI, criterion 3a
4. ABUTI

15



Case 5

What is the date of the event?

1. No event should be reported
2. 9/3
3. 9/1
4. 9/2

16



Case 6

How many indwelling catheter days?

	Patient	Admission	Urinary status
1. 6	101 Black	Admitted 2 days ago	Foley catheter to DD
2. 5	102 White	Admitted 2 months ago	Bedpan
3. 4	103 Gray	Deceased 1 pm	Voiding
4. 3	104 Salmon	Admitted 2 pm	Foley catheter to DD
5. 2	105 Green	Admitted 9 am	Suprapubic catheter to DD
6. 1	106 Berry	Admitted 3 weeks ago	Foley catheter to DD
	107 Brown	Transferred to hospital at 11 am	Straight catheter every 3 hours

Catheter day count is done at 12 noon. DD = direct drainage

17



Case 7

How many indwelling catheter days?

	Patient	Admission	Urinary status
1. 6	101 Rodgers	Admitted at 4 pm	Condom catheter to DD
2. 5	102 Wilson	Day 2 of admission	Foley catheter to DD
3. 4	103 Manning	Transferred to another LTC at 11 am	Voiding
4. 3	104 Cutler	Admitted 2 years ago	Incontinent using diaper
5. 2	105 Brady	Admitted 9 months ago	Suprapubic catheter to DD
6. 1	106 Ponder	Discharged to home 4 pm	Foley catheter to DD
	107 Stafford	Admitted at 1 pm	Voiding

Catheter day count is done at 11 pm. DD = direct drainage

18



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