

# Clinical Scenario

## Sepsis - UTI Local Infection

### Scenario:

32 y/o F who was seen in ED 2 days prior and dx'd with UTI given Rx po antibiotics and discharged, returns to ED c/o worsening pain, n/v, chills with fevers.

### ED Course:

Initial VS: 38.9 °C, 135, 98/58, RR 30

Labs: WBC 26.0, lactic acid 2.9, Creatinine 2.8 (0.9 2 days ago), K 2.8, Na 132, UA + WBC 11-25, 3L IVFs, Bld Cxs drawn, Rocephin IV, Fentanyl IV

### At Time of Decision to Admit:

Mental Status: Alert and Oriented X3

VS: 99% room air, R 26, BP 118/66, P 106 -123

Pain: Improved post ED meds

Documented Principal Problem: Severe sepsis

Documented Active Problem(s): Pyelonephritis

### Recommended Workflow

**C-** Consider appropriate care setting

- Hospitalization

**A-** Ask what the principal diagnosis is?

- Sepsis due to UTI

**R-** Review INPT guideline first, then OBS

- UTI, INPT Criteria MET

**E-** Enter bed status / level of care order

- INPATIENT

**D-** Document criteria in medical record

### INPATIENT

#### Hemodynamic instability

- Vital sign abnormality not readily corrected by appropriate treatment
  - Tachycardia >100\*
- Altered mental status that is severe or persistent
- Persistence or worsening of clinical finding despite observation are
- Pregnancy with suspected pyelonephritis
- Kidney transplant recipient with suspected pyelonephritis
- Significant uropathy (eg, obstructive defects, moderate to severe vesicoureteral reflux)
- Suspected infection of an indwelling prosthetic device, stent, implant, or graft
- Ureteral obstruction
- Bladder emptying significantly impaired (eg, bladder outlet obstruction)
- Renal or perinephric abscess
- Emphysematous pyelonephritis or cystitis(16)(17)(18)
- Pyonephrosis
- AKI (Stage 3)
- AKI (Stage 2)
- Need for IV hydration support (eg, inability to maintain oral hydration) despite observation care

\* Sustained

### OBSERVATION

- Immunosuppressed patient
- Vital sign abnormality
- Altered mental status
- Tachypnea
- Metabolic derangement (eg, dehydration, acidosis)
- Evidence of end organ dysfunction (eg, rising creatinine, myocardial ischemia, rising liver function tests)
- Ability to maintain hydration orally unclear
- Significantly elevated markers of infection
- Need for clinical observation of response to treatment or until results of diagnostic studies (eg, cultures, fluid analysis) are available or while treatment at lower level of care is arranged
- Fever in infant age 29 days to 90 days

### Teaching Points:

- Document vital signs including O2 saturation on room air and oxygen device post ED treatment
- If a specific **infectious diagnosis is made or strongly suspected** (ie, treatment plan directed at this diagnosis alone), the **appropriate guideline for that condition** should be used whenever possible (eg, acute viral illness, cellulitis, diverticulitis, endocarditis, febrile neutropenia, gastroenteritis, meningitis, osteomyelitis, pelvic inflammatory disease, pericarditis, pneumonia, septic arthritis, urinary tract infection).
- The **current definition** of septic shock for adults, in turn, is that subset of septic patients who despite adequate fluid resuscitation are hypotensive and require vasopressor therapy to maintain a mean arterial blood pressure of 65 mm Hg or more, and have a serum lactate level greater than 18 mg/dL (2 mmol/L)
- For patients with a **generalized febrile illness** suspected or known to be of **viral etiology** (eg, positive influenza or coronavirus disease 2019 (COVID-19) test), the **Viral Illness, Acute** guideline is appropriate.
- If the **etiology of the infection is unknown** (ie, may be viral, bacterial, or fungal), the **Sepsis and Other Febrile Illness, without Focal Infection** guideline is appropriate.