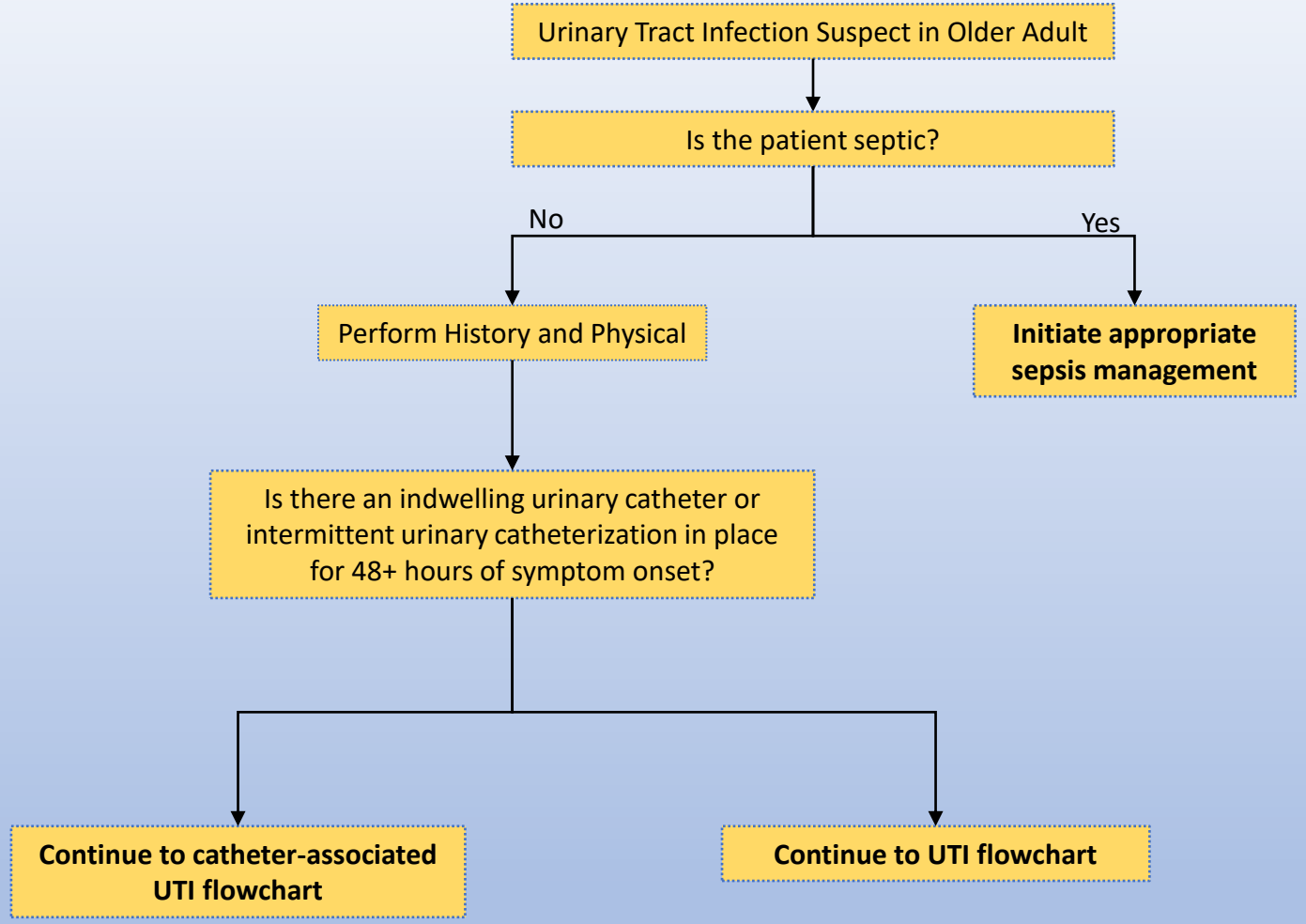
Urinary Tract Infection Suspect in Older Adult
Is the patient septic?
No
Yes
Perform History and Physical
Initiate appropriate sepsis management
Is there an indwelling urinary catheter or intermittent urinary catheterization in place for 48+ hours of symptom onset?
Continue to catheter-associated UTI flowchart
Continue to UTI flowchart

Urinary Tract Infection Suspect in Older Adult

Pearl: The diagnosis of UTI in older adults is challenging because of high rates of asymptomatic bacteriuria and misattribution of nonspecific signs/symptoms to the urinary tract.

Diagnosing UTIs (signs/symptoms attributable to urinary tract AND significant bacteriuria) in older adults is actually very challenging! This is because:

- The rates of UTIs and asymptomatic bacteriuria increase with age
- The traditional paradigm that urine is sterile is WRONG!
- Older patients tend to present with nonspecific signs and symptoms (weakness, falls, confusion) that are often **incorrectly** attributed to the urinary tract

As a result, UTIs are over-diagnosed and over-treated resulting in significant iatrogenic harm.

Click for more about the difficulties in diagnosing UTI in older adults

Is the patient septic?

Pearl: Sepsis is a distinct clinical syndrome that requires early recognition due to high mortality

Sepsis is clinical syndrome with varied presentations where there is a dysregulated response to an infection causing organ damage.

The key to early recognition of sepsis is clinical suspicion (to determine the presence of infection) especially in the setting of deteriorating vital signs

Calculators have been developed with limitations:

- Quick Sequential Organ Failure Assessment (qSOFA) – identifies patient at high risk of mortality from sepsis, not necessarily to diagnosis sepsis

- National Early Warning Score (NEWS)

Initiate appropriate sepsis management

Elucidate goals of care and arrange for appropriate level of care. Initiate sepsis bundle if consistent with goals of care.

Sepsis bundle:

- 30 ml/kg fluid bolus, if tolerable. Apply vasopressor if needed to maintain mean arterial pressure (MAP) of >65 mmHg
- Blood cultures, evaluate for infectious etiologies
- Start broad spectrum antibiotics
- Check lactate and trend to normalization

Perform History and Physical

History	Physical
<u>Localizing symptoms:</u> ❑ Pain (back, suprapubic, flank) ❑ Dysuria ❑ Urinary frequency ❑ Flank pain ❑ Hematuria ❑ Urinary urgency or incontinence ❑ **Systemic symptoms:** chills, rigors, change in mental status <u>Background:</u> ❑ Prior history of UTI and culture data (if available) ❑ Prior history of complications? ❑ Urologic history (retention, instrumentation, abnormal anatomy)? <u>At risk for multidrug resistant (MDR) organism:</u> ❑ Prior MDR organism ❑ Travel to MDR endemic regions ❑ Recent health care facility stay ❑ Recent antibiotic use, [especially fluroquinolones, trimethoprim/sulfasalazine, or broad-spectrum beta lactam]? *Consider risk for complications (age >65, abnormal anatomy, Diabetes, Immunosuppression, renal transplant, renal impairment, Other)*	❑ Vitals ❑ Abdominal exam checking for suprapubic tenderness ❑ Urethral meatus for purulence ❑ Assess for CVA tenderness ❑ Consider bladder scan to evaluate for incomplete voiding ❑ Consider pelvic exam in women ❑ Consider prostate exam in men

Is there an indwelling urinary catheter or intermittent urinary catheterization in place for 48+ hours of symptom onset?

Pearl: The evaluation for UTI is very different in CA-UTI compared to non-CA-UTIs. This is because catheters have different symptom presentations, baseline rates of bacteriuria, and number of expected organisms to consider.

A critical decision-making branch point is determining if there is suspicion for a catheter associated-UTI by evaluating if the patient had a urinary catheter* in place for >48 hours before the onset of symptoms.

*There is debate about what type of catheter qualifies for CA-UTI with some guidelines requiring a urethral catheter only whereas others include condom, suprapubic, and intermittent catheterization

Click for more about CA-UTI vs non-CA-UTIs