Diagnosis of Suspected Urinary tract Infection (UTI) in Non-Catheterized Elderly Patients in Acute Care Setting

**PRACTICE POINTS:**
- UTI is a clinical diagnosis, not a laboratory diagnosis
- Dipsticks not recommended - poor diagnostic accuracy
- Urinalysis:
  - Presence of bacteria/nitrites and/or WBC not diagnostic of UTI as common finding in the elderly
  - Absence of WBCs in urine rules out UTI
- Do not start antibiotics before urine sample collected
- ≥ 3 organisms typically implies contamination

**TYPICAL URINARY TRACT INFECTION SIGNS/SYMPTOMS:**
- Acute dysuria and/or
- 2 or more of the following:
  - Fever
  - New urgency (or marked increase)
  - New frequency (or marked increase)
  - Suprapubic/flank pain
  - New urinary incontinence
  - Gross hematuria

**TYPICAL URINARY TRACT INFECTION ALGORITHM:**

1. **Urinalysis**
   - No pathogens reported
   - Leukocyte esterase negative/trace/small or WBC < 5/hpf
   - Leukocyte esterase moderate/large or WBC > 5/hpf

2. **Urine culture**
   - Note: For female patient, strongly recommend in/out catheter urine
   - No pathogens reported
   - ≥ 3 organisms or reported as mixed/contaminated
   - 1 or 2 uropathogens with susceptibility results

3. **Fever/hypothermia**
   - DO NOT ASSUME UTI
   - Assess for other infections:
     - Respiratory tract
     - Skin/soft tissue
     - GI tract

4. **Contact healthcare provider**
   - for urgent management
   - Cognitive/functional changes
     - DO NOT ASSUME UTI
     - Consider/assess for:
       - Dehydration
       - Drug interaction/side effects
       - Sleep disturbances
       - Sensory deprivation
       - Hypoxia
       - Hypoglycemia
       - Constipation
       - Urinary retention
       - Increased falls
       - Worsening functional status
       - New/increased functional behaviour

5. **Foul smelling/dark/cloudy urine alone**
   - Typically indicates dehydration
   - Rehydrate/push fluids (up to 1L) for 24hrs.
   - Monitor every 6hrs.
   - Reassess clinical condition.

6. **Hemodynamic instability and/or mental status change**
   - Contact healthcare provider for urgent management
   - Reassess clinical condition.
   - Contact healthcare provider if fever and/or flank pain

**For more directions and guidance:**
www.ammi.ca | #SymptomFreeLetItBe