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.

**Flowchart Diagram**

**Urinalysis**
- **WBC in urine**
  - Leukocyte esterase negative/trace/small or WBC < 5/hpf
  - Leukocyte esterase moderate/large or WBC > 5/hpf
  - 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
  - UTI unlikely
    - Consider alternative diagnosis
    - Rehydrate/push fluids (up to 1L) for 24hrs.
    - Reassess clinical condition
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**Hemodynamic instability and/or mental status change**
- Contact healthcare provider for urgent management

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

**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

**Hemodynamic instability and/or rapid mental status deterioration/delerium**
- Contact healthcare provider for urgent management

**Foul smelling/dark/cloudy urine alone**
- Typically indicates dehydration

For more directions and guidance: [www.ammi.ca](http://www.ammi.ca) | #SymptomFreeLetItBe