

Evidence-based criteria for urinary infection testing | Adults

! Do not test urine for infection for • changes in colour, cloudiness or smell alone • catheter insertion or change

UTI symptoms

No catheter

- Acute dysuria (alone can justify a urine test)
- Or**
- Temperature >38°C or 1.1°C above baseline
- Plus any new or increased*
- Urinary frequency
- Urgency
- Incontinence
- Flank pain or tenderness
- Suprapubic pain or tenderness
- Gross hematuria

Catheter (indwelling)

- No other identifiable causes of infection
- And 1 or more of the following*
- Temperature >38°C or 1.1°C above baseline
- New flank pain or tenderness
- New suprapubic pain or tenderness
- Rigors/chills
- New onset delirium

Remove catheter if possible



Order urinalysis and urine culture

Obtain a good quality sample:
Midstream urine, in/out catheterization, or through a *new* catheter (of less than 2 weeks).



If above criteria not met (no UTI symptoms)

Do not test urine for infection

If more **severe** symptoms or suspected **pyelonephritis**

Start empiric therapy

If **mild** symptoms

Await results of urine culture & susceptibility before starting treatment

When results are available ensure targeted therapy

Older adult without UTI symptoms

Any of the following

- Alteration of cognitive / mental status from baseline
- Lethargy
- Weakness
- Malaise
- Falls
- Irritable / aggressive behaviour

1. Assess/address causes

- Dehydration
- Drug interactions/side effects
- Sleep/Environment changes
- Pain
- Restraints
- Depression
- Constipation or urinary retention
- Hypoxia/Ischemia
- Hyper/Hypoglycemia
- Infections (respiratory, skin/soft tissue)
- Seizures/post seizure state

2. Hydrate

- Encourage increased fluid intake for 24 hours.
- Consider clysis or IV fluids if oral fluid intake is less than 1L/day
 - Except if fluid restricted

3. Reassess in 24–48 hrs

Improvement or UTI not suspected?



Do not test urinalysis and urine culture

No improvement & suspected UTI?



Order urinalysis and urine culture

Urine culture testing may be indicated in...

Suspected Sepsis

As part of the sepsis investigation

Invasive urologic procedure

If mucosal bleeding or trauma is expected

Pregnancy

Routine urine testing in the first trimester, according to guidelines.
Refer to CMAJ Recommendations on screening for asymptomatic bacteriuria in pregnancy

Multiple Sclerosis

Patients may experience new or worsening neurological symptoms with UTI.
Refer to Towards Optimized Practice Multiple Sclerosis & Management Of Urinary Tract Infection Clinical Practice Guidelines

Spinal cord injury

Patients with neurogenic bladder may not be able to express signs of UTI.
Refer to Alberta SCI Bladder Management Pathway

Resources & references: www.albertahealthservices.ca/info/Page15718.aspx