

evidence based guidelines

OUTPATIENT URINARY TRACT INFECTION

TESTING

Assess symptoms

Uncomplicated UTI: Infection confined to the bladder in men or women (dysuria, urgency, frequency, suprapubic pain) with no symptoms of extension (see below).

Complicated UTI: Infections extending beyond the bladder such as: fever ≥ 38 C, chills/rigors, flank pain, costovertebral angle tenderness, long-term or frequent catheterization. Note: UTIs causing change in mental status usually have additional signs of sepsis (*SBP* < 90 mmHg, or ≥ 2 *SIRS*: *Temp* > 38 C or < 36 C, *HR* > 90 bpm, *RR* > 20 /min, *WBC* $> 12,000$ uL or $< 4,000$ uL or $> 10\%$ immature forms)

Start with Urinalysis

Urine dipstick: Presence of leukocyte esterase and/or nitrates

Centrifuged Manual Microscopic Urinalysis: > 5 WBCs/hpf or bacteriuria in male or pre-pubescent female

Laboratory Reported Microscopic Urinalysis: > 10 WBCs/hpf or bacteriuria in male or pre-pubescent female

Consider Urine Culture *Urine cultures are **not** necessary for low-risk women ages ≥ 16 years old*

Send a catheterized or supra-pubic aspiration (SPA) sample for infants < 24 months old being treated for UTI

- A clean-catch sample is a permissible alternative
- Perineal bag collection can be used for dipstick or microscopic testing but due to high false-positive rate cannot be used to obtain a urine culture.

Send clean-catch or catheterized urine culture for any patient with a UTI and a high risk of a complication:

- Complicated UTI symptoms
- All males and pre-pubescent females
- Presence of abnormal urogenital anatomy or an indwelling urinary catheter
- History of recently treated UTI or a patient with a history of frequent UTIs (≥ 2 in 6 months)

TREATMENT *Adjust doses for decreased renal function*

Significantly ill patients
& all infants < 2 months admit for inpatient therapy

amoxicillin/clavulanate 45 mg/kg divided every 8-12 hrs x 7-14 days (*max daily: 1750 mg*)
cephalexin 50-100 mg/kg (*max dose 1000 mg*) divided every 8 hrs x 7-10 days (*max daily: 3000 mg*)
Children
 ≥ 2 months
cefdinir 14 mg/kg once daily x 7-14 days (*max daily: 600 mg*)
trimethoprim/sulfamethoxazole 6-12 mg TMP/kg (*max dose 160 mg*) divided every 12 hrs x 7-10 days
(*max daily: 320 mg*)

Only if complicated UTI: ciprofloxacin 10-20mg/kg (*max dose 750 mg*) twice daily (*max daily: 1500 mg*)

nitrofurantoin 100mg twice daily x 5 days (avoid if pregnant or CrCl < 30 ml/min)
Adult
Uncomplicated
trimethoprim/sulfamethoxazole DS (160 mg/800 mg) twice daily x 3 days
cephalexin 500 mg 2-4x/day x 5-7 days (Preferred in pregnancy)
ciprofloxacin 250 mg twice daily (or 500mg ext. release daily) x 3 days
fosfomycin 3g once (may repeat every other day up to 3 doses)

trimethoprim/sulfamethoxazole DS (160mg/800 mg) twice daily x 7 days
Adult
Complicated*
cephalexin 500 mg 4x/day x 7 days
cefdinir 300 mg twice daily x 7 days
ciprofloxacin 500 mg twice daily (1000 mg ext. release daily) x 7 days
levofloxacin 750 mg once daily x 5-7 days

**Consider 10-14 days for febrile men in which acute bacterial prostatitis is suspected*

IMAGING *Obtain a renal ultrasound within 6 weeks of a UTI in the following cases:*

- Children < 24 months old after first febrile UTI
- Children ≤ 16 years old with any of the following: complicated UTI, ≥ 3 lifetime UTIs, FH of renal/urologic disease, poor growth, hypertension, non-E.Coli bacteria
- Any patient with low urine flow, frequent infections, failure to respond to tx, septicemia