

Pediatric Patient with Urinary Tract Infection

NOTE: This is for empiric therapy only for patients with confirmed UTI and meet inclusion/exclusion criteria. Therapy should be modified based on culture and susceptibility results. This document requires annual modification based on local susceptibility patterns for common pathogens that cause UTI

Inclusion:

- Age 2 months-18 years
- UTI signs/symptoms
 - Fever
 - Abdominal pain
 - Dysuria
 - Hematuria
 - Suprapubic or Costovertebral angle Tenderness
 - New incontinence

Exclusion:

- Neonatal ICU admission In past 6 months
- H/O recurrent UTI
- Chronic kidney disease
- Known anatomic abnormality of GU tract
- Prior GU tract surgery
- Sepsis or severe systemic illness
- Immunocompromised patient

UA/culture confirms UTI with evidence of infection by any of the following

- Pyuria >10 WBC/hpf,
- Bacteriuria,
- Presence of nitrites/ leukocytes, or
- Culture > 50,000 CFU/mL or less if symptoms are strongly concerning for UTI

**S/S of Urosepsis?
OR
Intolerance to oral options?**

Signs and symptoms of Urosepsis:
Chills
Hypotension
Tachycardia
Tachypnea
Poor perfusion

If signs/symptoms of sepsis present, refer to ED (if applicable) and see sepsis pathway (use sepsis order set)

Discharge Home on oral antibiotics

Penicillin allergy?

NO

YES

First Line:
Amoxicillin/Clavulanate 20mg/kg/dose PO twice daily (max 875 mg Amoxicillin/dose).
For cystitis or uncomplicated UTI, treat for 5-7 days. For pyelonephritis, treat for 7-10 days

Second Line: No concern for pyelonephritis or severe infection:
Patients > 40 kg and able to swallow whole pills:
Nitrofurantoin macrocrystals (Macrobid®) 100mg/dose PO twice daily. For females, treat for 5 days. For males, treat for 7 days.
Second Line or <40kg: With concern for pyelonephritis or severe infection:
Sulfamethoxazole/trimethoprim 4mg/kg/dose of TMP PO BID (max 160mg of TMP/dose).
Treat for 7-10 days

Refer to ED if applicable or arrange for Inpatient Admission

Concern for ceftriaxone hypersensitivity?

NO

YES

Inpatient First Line: Ceftriaxone 50 mg/kg/dose IV daily (max 1000mg/ dose)

Inpatient Second Line:

If Non-Type 1 Mediated Allergy:

< 12 years of age:
Ertapenem 15 mg/kg/dose IV q12h (max 500 mg/dose)

≥ 12 years of age:
Ertapenem 1,000 mg IV once daily

If anaphylaxis or delayed reaction (i.e serum sickness, Steven Johnson Syndrome, or Dress syndrome): Ciprofloxacin 10mg/kg/dose IV q12 hours (max 400mg/dose)