

## Pediatric FEBRILE Urinary Tract Infection Treatment Guideline (2-24 months)

Symptoms		Diagnostic Criteria for Acute Pyelonephritis		Risk Factors									
<ul style="list-style-type: none"> <li>Fever</li> <li>Poor feeding</li> <li>Vomiting</li> <li>Irritability</li> <li>Strong-smelling urine</li> </ul>		<u>Urinalysis results that suggest infection</u> <ul style="list-style-type: none"> <li>Positive nitrite <b>OR</b></li> <li>Leukocyte esterase <b>OR</b></li> <li>Pyuria <b>AND</b></li> <li>&gt;50,000 CFUs per mL of a uropathogen cultured from a urine specimen obtained through catheterization or SPA</li> </ul>		<table style="width: 100%; border: none;"> <tr> <td style="width: 50%; border: none;"><u>Girls</u></td> <td style="width: 50%; border: none;"><u>Boys</u></td> </tr> <tr> <td style="border: none;">Age &lt;12 months</td> <td style="border: none;">Temp ≥39 C</td> </tr> <tr> <td style="border: none;">Temp ≥39 C</td> <td style="border: none;">Fever ≥24 hours</td> </tr> <tr> <td style="border: none;">Fever ≥2 days</td> <td style="border: none;">Uncircumcised</td> </tr> </table> <p style="margin-top: 10px;">Absence of another source of infection</p>		<u>Girls</u>	<u>Boys</u>	Age <12 months	Temp ≥39 C	Temp ≥39 C	Fever ≥24 hours	Fever ≥2 days	Uncircumcised
<u>Girls</u>	<u>Boys</u>												
Age <12 months	Temp ≥39 C												
Temp ≥39 C	Fever ≥24 hours												
Fever ≥2 days	Uncircumcised												
Test		Treat		Imaging <sup>1</sup>									
Obtain urine culture <b>PRIOR</b> to starting antibiotics		Adjust therapy based on sensitivity testing		<ul style="list-style-type: none"> <li>Renal/bladder ultrasound for 1st febrile UTI</li> <li>VCUG for 2nd febrile UTI or if abnormalities seen on renal/bladder ultrasound</li> </ul>									
Antibiotic Selection													
		Ambulatory Empiric Treatment	Inpatient Empiric Treatment	Duration of Therapy									
<b>Preferred Treatment</b>	<b>Cephalexin</b> can be divided TID or QID: 17mg/kg PO TID (max 4gm/day) <b>OR</b> 12.5mg/kg PO QID (max 4gm/day)		<b>Ceftriaxone</b> 50mg/kg IV Q24H (max 2gm/day)	7-10 days									
<b>Beta-lactam allergic</b>	<b>Sulfamethoxazole/trimethoprim</b> 4-5mg/kg PO BID (trimethoprim component for dosing; max 160mg trimethoprim/dose)		<b>Gentamicin</b> 5mg/kg/day IV										

1. Roberts KB. Urinary tract infection: clinical practice guideline for the diagnosis and management of the initial UTI in febrile infants and children 2 to 24 months. *Pediatrics*. 2011;128(3):595-610.

## Pediatric Urinary Tract Infection Treatment Guideline (>24 months)

Symptoms		Risk Factors		Test/Treat	
<u>Preverbal</u> <ul style="list-style-type: none"> <li>Fever</li> <li>Abdominal/flank pain</li> <li>Vomiting</li> <li>Poor feeding</li> <li>Lethargy</li> <li>Malodorous urine</li> </ul>	<u>Verbal</u> <ul style="list-style-type: none"> <li>Frequency</li> <li>Dysuria</li> <li>Hesitancy</li> <li>Urgency</li> <li>Abdominal/flank pain</li> </ul>	Prior history of UTI <ul style="list-style-type: none"> <li>Review prior organism/susceptibilities for guidance on empiric therapy selection if recurrent UTI</li> </ul> Fever ≥ 2 days or prolonged ≥ 5 days		Obtain urine culture <b>PRIOR</b> to starting antibiotics <p style="margin-top: 10px;">Adjust therapy based on sensitivity testing</p>	
Antibiotic Selection					
		Ambulatory Empiric Treatment	Inpatient Empiric Treatment	Duration of Therapy	
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*Antimicrobial Stewardship Program Approved 2016; Updated December 2019*

2. Shaw K, et al. Pathway for the Evaluation and Treatment of Children with Febrile UTI. Children's Hospital of Philadelphia. <https://www.chop.edu/clinical-pathway/urinary-tract-infection-uti-febrile-clinical-pathway>. Accessed Oct 2018.