Children’s Wisconsin

Co-Management Guidelines

To support collaborative care, we have developed guidelines for our community providers to utilize when referring to, and managing patients with, the pediatric specialists at Children’s Wisconsin. These guidelines provide protocols for jointly managing patient cases between community providers and our pediatric specialists.

UTI: Urinary Tract Infection					
Diagnosis/symptom	**Referring provider’s initial evaluation and management:**	**When to initiate referral/ consider refer to Urology Clinic:**	**What can referring provider send to Urology Clinic?**	**Specialist’s workup will likely include:**	**Model of care**
Signs and symptoms • Upper tract (i.e. pyelonephritis): fever > 38° C, nausea/vomiting, flank pain, general malaise • Lower tract (i.e. cystitis): dysuria, frequency/urgency, incontinence, suprapubic pain, change in urine odor or color • Neonates/Infants: fever > 38° C, irritability, poor feeding, vomiting, diarrhea, failure to thrive, jaundice, sepsis	**Diagnosis:** • Catheterized specimen: Urinalysis suggestive of infection (pyuria and/or bacteriuria) AND ≥ 50,000 colony-forming units (CFUs) per mL of a uropathogen cultured. Alternatively, ≥ 10,000 CFUs/mL may be considered a *possible* UTI depending on initial index of suspicion. • Clean catch specimen: In a symptomatic child, positive urinalysis AND ≥ 100,000 CFUs/mL of a single uropathogen from a voided clean-catch specimen is also diagnostic. Alternatively, ≥	1. Recurrent UTIs that are refractory to the recommended treatment **2.** Boys after the 1st febrile UTI/pyelonephritis, irrespective of imaging result **3.** Girls after the 1st febrile UTI/pyelonephritis, with abnormal imaging **4.** Boys and Girls after the 2nd febrile UTI/pyelonephritis,	**1. Using Epic referral form , please complete:** • Urgency of the referral • What is the patient's chief complaint • Describe details • Pertinent past medical history • Abnormal lab or imaging findings • What is the key question you want addressed • Does patient have psychosocial stressors or mental health concerns	**After referral to Urology Clinic:** 1. Your patient will receive testing only if it is warranted. 2. You will receive consultation letter with assessment and plan within a week of the visit. 3. You will receive updates any time the patient returns for follow up. You may receive a phone call if there are additional concerns.	

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	50,000 CFUs/mL may be considered a *possible* UTI depending on initial index of suspicion.	irrespective of imaging results **5.** Consider an outpatient referral for boys or girls after the 1st febrile UTI/pyelonephritis, if UTI required inpatient evaluation 6. Desire by the family or the primary provider to seek specialist evaluation following the 1st febrile UTI/pyelonephritis	**2. Not using Epic referral form:** Please **fax (414-266-1752**) the above information **<u>and</u>** include: • Indicate if you want consult only, or consult and management of the problems. • Send any X-ray films/reports with patient, if film was not done at Children's • Send lab work, and any office notes regarding this patient's problems. Urology Office number: **(414) 266-2460**		
<u>Causes</u> 75% of urinary tract infections are cause by Escherichia coli. The next most common pathogens are Klebsiella and Proteus, followed by Staphylococcus and Enterococcus.	**<u>Urinalysis</u>** • Leukocyte esterase test: 71-86% sensitive in the context of clinically suspected UTI • Nitrite test: highly specific; not sensitive in children who empty their bladders frequently • Combination LE and nitrite positive: 94% sensitive for clinically suspected UTI • Culture results of urine collected in a bag applied to the perineum are only valid when negative and are not routinely encouraged for this reason.				

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	<u>Treatment and Drugs</u> 1. Behavior modification**:** robust hydration and frequent voiding 2. Treatment of constipation 3. Antibiotics 4. RBUS and/or VCUG dependent upon number of febrile infections and/or under 6 months of age **Empiric therapy with oral antibiotics pending culture and sensitivity results:** **<u>Age >60 days to <2 years</u>** <u>Cystitis/Pyelonephritis</u>: cephalexin for 10 days 25 mg/kg/dose TID (Intravenous antibiotic treatment is highly recommended in infants who may not tolerate oral treatment) **<u>Age 2 to <12 years</u>** <u>Cystitis</u>: cephalexin for 7 days 25 mg/kg/dose [max 500 mg/dose] TID <u>Pyelonephritis</u>: cephalexin for 10 days 25 mg/kg/dose [max 1000 mg/dose] TID **<u>Age ≥12 years</u>**				

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	Cystitis: cephalexin for 3 days 25 mg/kg/dose [max 500 mg/dose] TID Pyelonephritis: cephalexin for 10 days 25 mg/kg/dose [1000 mg/dose] TID **Toxic-appearing children or those who cannot tolerate oral medications should be treated parenterally** If Hx of prior UTI, select empiric therapy based on previous urine culture sensitivities If allergy to cephalosporins or severe IgE-mediated reaction (i.e. anaphylaxis or anaphylactoid reaction) to penicillins (incl. amoxicillin), consider trimethoprim/sulfamethoxazole 5-6 mg/kg/dose [max 160 mg/dose trimethoprim for cystitis or pyelonephritis] BID for the duration recommended for cephalexin based on age and diagnosis				

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