



## URINARY TRACT INFECTION

<b>DEFINITION</b>	An infection of the urethra, bladder (cystitis), ureters, or kidneys.
<b>SUBJECTIVE</b>	May include: <ol style="list-style-type: none"><li>1. No symptoms.</li><li>2. Complaints of urinary frequency, burning, nocturia, dysuria or urgency.</li><li>3. Hematuria.</li><li>4. Suprapubic pain or lower abdominal pain.</li><li>5. Sexual history.</li><li>6. Stress/urge incontinence.</li><li>7. Malodorous and/or cloudy urine.</li><li>8. Diaphragm and/or spermicide use.</li><li>9. Vaginal symptoms.</li></ol> May exclude: <ol style="list-style-type: none"><li>1. Severe flank pain.</li><li>2. Nausea/vomiting.</li><li>3. Chills.</li><li>4. Malaise.</li></ol>
<b>OBJECTIVE</b>	May include: <ol style="list-style-type: none"><li>1. No remarkable physical findings.</li><li>2. Suprapubic tenderness on abdominal exam.</li><li>3. Urethral and/or bladder tenderness.</li><li>4. Inflammation of urethral meatus.</li><li>5. Pelvic exam.</li></ol> May exclude: <ol style="list-style-type: none"><li>1. CVA tenderness.</li><li>2. Temperature <math>\geq 100.4^\circ</math> F.</li></ol>
<b>LABORATORY</b>	<ol style="list-style-type: none"><li>1. Clean catch urine dipstick may include:<ol style="list-style-type: none"><li>a. Positive WBCs.</li><li>b. Positive RBCs.</li><li>c. Positive nitrates.</li><li>d. Positive Leukocyte esterase.</li></ol></li><li>2. Clean catch urine microscopy (when performed):<ol style="list-style-type: none"><li>a. Greater than or equal to 5-10 WBCs/high power field (HPF).</li><li>b. Positive RBCs.</li></ol></li></ol>

	<ul style="list-style-type: none"> <li>c. Positive bacteria.</li> <li>3. Pregnancy test = negative in non-contracepting women.</li> <li>4. Vaginitis/cervicitis screening, as appropriate.</li> <li>5. Urine C&amp;S report positive for <math>\geq 100,000</math> organisms of the same species for clean catch specimen.</li> </ul>
<b>ASSESSMENT</b>	Urinary tract infection.
<b>PLAN</b>	<ul style="list-style-type: none"> <li>1. Treatment options may include one of the following: for uncomplicated UTI <ul style="list-style-type: none"> <li>a. Trimethoprim-Sulfamethoxazole DS (Bactrim DS) 160/800 mg 1 PO bid x 3-7 days (20% resistance in some communities) OR</li> <li>b. Nitrofurantoin monohydrate/macrocrystals (Macrobid) 100 mg. #14, sig. 1 PO bid x 7 days OR</li> <li>c. Nitrofurantoin macrocrystals (Macrochantin) 50 mg PO qid x 7 days OR</li> <li>d. Ciprofloxacin HCL (Cipro) 250 or 500 mg PO bid x 3 days (Black Box warning- associated with potential tendon rupture) OR</li> <li>e. Amoxicillin 500 mg. tid x 10 days OR</li> <li>f. Trimethoprim 100 - 200mg q 12 hrs x 3 days OR</li> <li>g. Fosfomycin Tromethamine (Monurol) 3 gm sachet sig: 1 sachet mixed with 4 oz. H2O x 1 OR</li> <li>h. May use alternative antibiotic or as indicated most appropriate by the C &amp; S Report</li> </ul> </li> <li>2. For the complaint of severe dysuria, may offer: <ul style="list-style-type: none"> <li>a. Phenazopyridine 100-200 mg PO tid prn X2 days. (available OTC as AZO 97.5mg) OR</li> <li>b. Uristat 95 mg. 2 tabs tid prn X2 days. (available OTC).</li> </ul> </li> </ul>
<b>CLIENT EDUCATION</b>	<ul style="list-style-type: none"> <li>1. Provide client education handout(s). Review symptoms, complications, and danger signs.</li> <li>2. Emphasize importance of good perineal hygiene.</li> <li>3. Some intercourse positions put excessive pressure on bladder and may rupture newly healed tissue. Avoid these positions until infection subsides.</li> <li>4. Recommend frequent urination, urination before and after intercourse.</li> <li>5. Review safer sex education, as appropriate.</li> <li>6. Recommend client RTC if symptoms are not relieved by medication.</li> <li>7. Spermicides containing contraceptive particularly, diaphragm, increase the risk of UTI's.</li> <li>8. Phenazopyridine may change your urine orange and stain clothing</li> <li>9. Do not wear contact while taking phenazopyridine</li> </ul>
<b>CONSULT / REFER TO PHYSICIAN</b>	<ul style="list-style-type: none"> <li>1. Pregnancy</li> <li>2. Exhibits signs and symptoms of upper UTI (fever, flank pain, malaise, nausea, vomiting and chills).</li> <li>3. History of pyelonephritis, renal or bladder stones, recurrent UTI (3 infections/year).</li> <li>4. Symptoms persist post treatment.</li> <li>5. Symptoms present with negative urine and STD culture results.</li> </ul>

Revised 08/12

References:

1. [www.emedicine.medscape.com/article233101-overview](http://www.emedicine.medscape.com/article233101-overview)