

**12.11 URINARY TRACT INFECTION (UNCOMPLICATED AND PREVENTION OF POST-COITAL)**

TITLE	DESCRIPTION
DEFINITION:	An infection of the urethra, bladder (cystitis), ureters, or kidneys. UTI symptoms after sexual intercourse may be caused from the introduction of bacteria from the urethra into the bladder.
SUBJECTIVE:	<p><b>May Include:</b></p> <ol style="list-style-type: none"> <li>1. Complaints of urinary frequency, burning, nocturia, dysuria or urgency.</li> <li>2. Hematuria.</li> <li>3. Suprapubic pain or lower abdominal pain.</li> <li>4. Sexual history.</li> <li>5. Stress/urge incontinence.</li> <li>6. Malodorous and/or cloudy urine.</li> <li>7. Diaphragm and/or spermicide use.</li> <li>8. Vaginal symptoms.</li> <li>9. Complaints of recurrent UTIs after sexual intercourse (at least 2-4 UTIs in one year).</li> <li>10. No symptoms.</li> </ol> <p><b>Should Exclude:</b></p> <ol style="list-style-type: none"> <li>1. Severe flank pain.</li> <li>2. Nausea/vomiting.</li> <li>3. Chills.</li> </ol>
OBJECTIVE:	<p><b>May Include:</b></p> <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> <p><b>Should Exclude:</b></p> <ol style="list-style-type: none"> <li>1. CVA tenderness.</li> <li>2. Temperature &gt; 100.4° F.</li> </ol>
LABORATORY:	<p><b>Should Include:</b></p> <ol style="list-style-type: none"> <li>1. Clean catch urine dipstick: <ol style="list-style-type: none"> <li>a. Positive blood.</li> <li>b. Positive nitrates.</li> <li>c. 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 red blood cells &gt; 5 RBC's/high power field (HPF).</li> <li>c. Positive bacteria.</li> </ol> </li> <li>3. Negative pregnancy test in non-contracepting women.</li> <li>4. Vaginitis/cervicitis screening, as appropriate.</li> <li>5. Urine C&amp;S (when performed) report positive for &gt; 100,000 organisms of the same species for clean catch specimen.</li> </ol>

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ASSESSMENT:	Urinary tract infection or post-coital cystitis.
PLAN:	<p>1. Treatment options may include one of the following for uncomplicated UTI:</p> <ol style="list-style-type: none"> <li>a. Trimethoprim-Sulfamethoxazole DS 160/800mg PO BID for 3 days OR</li> <li>b. Trimethoprim 300mg (PO) for 3 days OR</li> <li>c. Nitrofurantoin monohydrate/macrocrystals 100mg (PO) BID for 7 days OR</li> <li>d. Nitrofurantoin macrocrystals 50mg – 100mg (PO) QID for 7 days OR</li> <li>e. Amoxicillin 500mg. TID for 7- 10 days OR</li> <li>f. Fosfomycin Tromethermine (Monurol) 3gm sachet sig: 1 sachet mixed with 4 oz. H2O x 1 OR</li> <li>g. <b>**Ciprofloxacin HCL 250mg (PO) BID for 3 days (Black Box warning-associated with potential tendon rupture) OR</b></li> <li>h. <b>**Ciprofloxacin extended release 500mg (PO) QD for 3 days OR</b></li> <li>i. <b>**Levofloxacin 250mg QD for 3 days</b></li> <li>j. May use alternative antibiotic, as indicated most appropriate by the C &amp; S Report, if done.</li> </ol> <p><b>**July 26, 2016 FDA advises that side effects associated with fluoroquinolones generally outweigh the benefit for uncomplicated UTI.</b> In those with other options reserve use for those who do not have alternative treatment options.</p> <p>2. For the complaint of severe dysuria, may offer:</p> <ol style="list-style-type: none"> <li>a. Phenazopyridine 100-200mg PO TID PRN for 2 days (available OTC as AZO 97.5mg OR</li> <li>b. Uristat 95mg: 2 tabs PO TID PRN for 2 days (available OTC)</li> </ol> <p>3. Treatments options for post-coital cystitis (<b>non-pregnant clients only</b>) may include:</p> <ol style="list-style-type: none"> <li>a. Trimethoprim-sulfamethoxazole 40mg/200mg (1 dose)</li> <li>b. Trimethoprim-sulfamethoxazole 80mg/400mg (1 dose)</li> <li>c. Nitrofurantoin 50mg or 100mg (1dose)</li> <li>d. Cephalexin 250mg (1 dose)</li> <li>e. <b>** Ciprofloxacin 125mg (1 dose)</b></li> <li>f. <b>** Ofloxacin 100mg (1 dose)</b></li> <li>g. For symptom control, may use Phenazopyridine 100-200mg q8 hours PRN if symptomatic (MUST be taken along with antibiotic. Has a crossover reaction with sulfa allergy.)</li> <li>h. <b>*These are ideally to be taken within 2 hours of each act of sexual intercourse. Antibiotic only needs to be taken once in 24 hours, even if there are multiple acts within that time period.</b></li> </ol> <p><b>**July 26, 2016 FDA advises that side effects associated with fluoroquinolones generally outweigh the benefit for uncomplicated UTI.</b></p>
EDUCATION:	<ol style="list-style-type: none"> <li>1. Provide client educational handout(s).</li> <li>2. Review symptoms, complications, and danger signs.</li> <li>3. Emphasize importance of good perineal hygiene.</li> <li>4. Some intercourse positions put excessive pressure on bladder and may rupture newly healed tissue. Avoid these positions until infection subsides.</li> <li>5. Recommend frequent urination. Urination before and after intercourse.</li> </ol>

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	<ol style="list-style-type: none"> <li>6. Review safer sex education, as appropriate</li> <li>7. Recommend client RTC if symptoms are not relieved by medication; seek medical care if symptoms worsen on medication.</li> <li>8. Spermicides containing contraceptive particularly the diaphragm, increase the risk of UTI's.</li> <li>9. Phenazopyridine may change your urine orange and stain clothing.</li> <li>10. Phenazopyridine may stain contacts orange; consider not wearing contacts with this medication.</li> </ol>
REFERRAL TO MEDICAL PROVIDER:	<ol 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 that persist post treatment.</li> <li>5. Symptoms present with negative urine and negative STD test results.</li> </ol>
REFERENCES:	<ol style="list-style-type: none"> <li>1. <a href="http://www.emedicine.medscape.com/article233101-overview">Urinary Tract Infection and Cystitis in Females</a> (<a href="http://www.emedicine.medscape.com/article233101-overview">www.emedicine.medscape.com/article233101-overview</a>). (Retrieved 2/8/2017).</li> <li>2. <a href="http://www.ncbi.nlm.nih.gov/pmc/articles/pmc3749018">Recurrent Urinary Tract Infections Management in Women</a> (<a href="http://www.ncbi.nlm.nih.gov/pmc/articles/pmc3749018">www.ncbi.nlm.nih.gov/pmc/articles/pmc3749018</a>). (Retrieved 12/2016).</li> <li>3. National Guideline Clearinghouse. <a href="https://www.guideline.gov/summaries/summary/12628">Treatment of urinary tract infections in nonpregnant women</a>. <a href="https://www.guideline.gov/summaries/summary/12628">https://www.guideline.gov/summaries/summary/12628</a> (Retrieved 1/2017).</li> <li>4. U.S. Food &amp; Drug Administration. <a href="https://www.fda.gov/Drugs/DrugSafety/ucm500143.htm?source=govdelivery&amp;utm_medium=email&amp;utm_source=govdelivery">Fluoroquinolone Antibacterial Drugs: Drug Safety Communication - FDA Advises Restricting Use for Certain Uncomplicated Infections</a> (<a href="https://www.fda.gov/Drugs/DrugSafety/ucm500143.htm?source=govdelivery&amp;utm_medium=email&amp;utm_source=govdelivery">https://www.fda.gov/Drugs/DrugSafety/ucm500143.htm?source=govdelivery&amp;utm_medium=email&amp;utm_source=govdelivery</a>).</li> <li>5. <a href="http://www.pdr.net/">Prescribers Digital Reference: Pyelonephritis</a> (<a href="http://www.pdr.net/">http://www.pdr.net/</a>).</li> </ol>