
### Appendix 1. Treatment selection tool: Antibiotic choices for uncomplicated* urinary tract infections in outpatients in the emergency department. Copyright © 2011 Regina Qu’Appelle Health Region. This algorithm is based on local (RQHR) outpatient urinary isolate susceptibility available at the time the study was conducted and, as such, may not apply to other centres.

**First Line Therapy – No EDS/Inexpensive:**

1. **Nitrofurantoin (Macrobid® 100mg po bid) unless:**
   - Systemic infection – i.e. upper UTI, pyelonephritis, bacteremia
   - Clcr < 60mL/min
   - **or,**
2. **TMP-SMX (1 DS tablet po q12h (If Clcr 15-30mL/min: 1 SS tablet P0 q12h)) unless:**
   - Sulfur allergy; can use **trimethoprim** alone (100mg po q12h)
   - Clcr < 15mL/min

**Second Line Therapy – EDS Required:**

3. **Amoxicillin/Clavulanate (Clavulin® 875mg/125mg po q12h, or 500mg/125mg q8h) unless:**
   - True penicillin allergy (anaphylaxis: hives, SOB, throat swelling)
   - Known resistant organism (i.e. *Pseudomonas* on C&S result)
   - **or,**
4. **Cefprozil or Cefuroxime (2nd gen cephs 250mg po q12h (500mg if upper UTI)) unless:**
   - Severe penicillin allergy (anaphylaxis: hives, SOB, throat swelling) or, cephalosporin allergy
   - Known resistant organism (i.e. *Pseudomonas* on C&S result)

**Last Resort – EDS Required & Lower E. coli**

5. **Ciprofloxacin (250mg po q12h (500mg if upper UTI)) only if:**
   - Sulfur and severe beta-lactam allergy
   - Known resistance to **all** above agents (i.e. *Pseudomonas* on C&S result)

**RQHR Antibiogram 2009-10**

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**N.B. Recurrent Symptoms/Relapse** - Recurrence within 1-2 weeks after treatment; usually same organism i.e. Retreat with **previous agent** for longer duration (e.g. If relapse with 3 day regimen, retreat for 7 days; with 7 day regimen, retreat for 14 days)

**Uncomplicated UTI defined as 13 years of age or older without the following:**
- Pregnant, Nursing Home Resident, Indwelling Catheter, Spinal Cord Injury,
- Abnormal Urinary Tract Anatomy, Physical Obstruction, Inpatient

**DAILY Drug Cost only:**
- ≈$0.25 TMP/SMX
- ≈$1.50 nitrofurantoin (Macrobid®)
- ≈$2.00 amox/clav or, 2nd gen cephs 250mg regimen
- ≈$3.00 2nd gen ceph 500mg regimen or cipro
Uncomplicated UTI: 13 years of age or older without the following exclusion criteria: Pregnant, Nursing Home Resident, Indwelling Catheter, Spinal Cord Injury, Abnormal Urinary Tract Anatomy, Physical Obstruction, Inpatient

Daily Drug Cost only: ≈$0.25 TMP/SMX, ≈$1.50 nitrofurantoin, ≈$2amox/clav or 2nd gen cephs 250mg regimen; ≈$3 2nd gen ceph 500mg regimen or cipro


Appendix 2. Best practice algorithm: Empiric treatment of uncomplicated* urinary tract infections in outpatients in the emergency department. Copyright © 2011 Regina Qu’Appelle Health Region. This algorithm is based on local (ROHR) outpatient urinary isolate susceptibility available at the time the study was conducted and, as such, may not apply to other centres.

Uncomplicated UTI (Primarily E. coli)

Lower UTI
(e.g. Cystitis: Dysuria, Urgency, Nocturia, Suprapubic Heaviness/Pain)

Preferred Antibiotic(s)
- Nitrofurantoin (Macrobid) 100mg po bid x 7 days ONLY if estimated Clcr >60mL/min ➤Use eClcr on Lab report
- Trimethoprim/Sulfamethoxazole* 1 DS tablet po q12h x 3 days or, if Sulfra allergy: Trimethoprim* 100mg po q12h x 3 days
  * If Clcr 15-30mL/min, TMP-SMX 1 SS tablet po q12h or, TMP 50mg po q12h

2nd Line* - if Clcr <15mL/min or, suspect resistant organism
- Cefprozil 250mg or, Cefuroxime axetil 250mg po q12h x 7 days
- Amoxicillin/Clavulenate 875mg/125mg po q12h x 7 days

*Sask. Drug Plan EDS: (b) Infections caused by organisms known to be resistant or unresponsive to alternative antibiotics.

Alternative (ROHR Criteria not)*
Ciprofloxacin** 250mg po q12h or Cipro XL 500mg po q24h x 3 days

**ROHR Ciprofloxacin Criteria For Use: Patients allergic, unresponsive, or with contraindications to alternative agents

**Cipro Drug Plan EDS Criteria: (c) Infections known to be resistant to alternative antibiotics. Resistance must be determined C&S testing

N.B. Recurrent Symptoms/Relapse - Recurrence within 1-2 weeks after treatment; usually same organism ➤Retreat with previous agent for longer duration (e.g. If relapse with 3 day regimen, retreat for 7 days; with 7 day regimen, retreat for 14 days)