# **Guidelines for Management of Suspected Urinary Tract Infections (UTIs) Emergency Department Pathway, Providence Health Care** (January 2012)

### FOR SEVERE OR LIFE-THREATENING INFECTIONS, REFER TO PHC SEPSIS PATHWAY

## FOR PATIENTS FROM RESIDENTIAL CARE REFER TO PHC RESIDENTIAL UTI PATHWAY

### **UNCOMPLICATED UTI**

- Non-Pregnant
- No complicating factors (See Complicated UTI Box for definitions)

### **UNCOMPLICATED CYSTITIS**

- Classic symptoms of UTI
- No vaginal symptoms/discharge
- Urinalysis and Urine C&S optional but should be obtained if UTI is recurrent
- Oral Antibiotics:
  - nitrofurantoin long acting (MACROBID) 100 mg PO BID x 5 days (DO NOT use if CrCl below 40 mL/min) \*OR\*
  - TMP/SMX DS 1 tablet PO BID x 3 days<sup>1,2</sup>

<sup>1</sup> Do NOT use if patient has received TMP/SMX in the last 3 months <sup>2</sup> E.coli resistance to TMP/SMX at PHC is 31%

### **UNCOMPLICATED PYELONEPHRITIS**

- Urinalysis and Urine C&S Required
- Initial Antibiotics in ED:
  - ceftriAXONE 1g IV x 1 dose \*OR\*
  - gentamicin 6 mg/kg IV (ideal body weight, but DO NOT use if CrCl below 30 mL/min) x 1 dose
- Step-down Oral Antibiotics
  - ciprofloxacin 500 mg PO BID x 7 days1 \*OR\*
  - TMP/SMX DS 1 tablet PO BID x 14 days<sup>1,2</sup>
- Instruct patient to return to ED or follow-up with family physician if no improvement after 48 hrs

<sup>1</sup> E.coli resistance at PHC to TMP/SMX 31% & ciprofloxacin 34% <sup>2</sup> Can be shortened to 10 days if there is a rapid response to treatment

### **Pregnant Patients**

Urinalysis and Urine C&S Required **CYSTITIS** 

- Oral Antibiotics:
  - > nitrofurantoin long acting (MACROBID) 100 mg PO BID x 7 days (Do NOT use in women at term, 36 to 42 weeks GA or if CrCl below 40 mL/min)
  - cefixime 400 mg PO daily x 7 days
  - TMP/SMX DS 1 tablet PO BID x 7 days (Do NOT use in 1<sup>st</sup> \*OR\* 3<sup>rd</sup> Trimester)

### **PYELONEPHRITIS**

- Consider admission due to increased frequency of complications
  - ceftriAXONE 1g IV to initiate therapy

### **COMPLICATED UTI**

Non-Pregnant

### **Presence of Complicating Factors:**

- Recent Instrumentation/Catheterization
- Structural/Functional urologic abnormality or nephrolithiasis
- Immunosuppression
- **Diabetes**
- Symptom duration over 7 days
- Recurrent UTI (over 3 per year or 2 in 6 months)

### **COMPLICATED CYSTITIS**

- Classic symptoms of UTI
- No vaginal symptoms/discharge
- Urinalysis and Urine C&S Required
- Consider giving ceftriAXONE<sup>2</sup> 1g IV x 1 dose in
- Oral Antibiotics:
  - ciprofloxacin 500 mg PO BID x 7d1 \*OR\*
  - cefixime 400 mg PO daily x 7 days<sup>2</sup>
  - amoxicillin/clavulanate 875 mg PO BID x 7
- Instruct patient to return to ED or follow-up with family physician if no improvement after 48 hrs

# D. COMPLICATED PYELONEPHRITIS

- Urinalysis and Urine C & S Required
- Consider Blood Cultures
- Consider Admission or Observation
- Initial Antibiotic in ED:
- ceftriAXONE<sup>1</sup> 1g IV x 1 dose \*OR\*
- gentamicin 6 mg/kg IV (ideal body weight, but DO NOT use if CrCl below 30 mL/min) x 1 dose
- Patients discharged from ED should return for daily IV antibiotics until urine C&S results available in order to transition to oral antibiotics

<sup>1</sup>Does not cover *Enterococcus* spp.

### References

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University of Michigan Health System Guidelines for Clinical Care. Urinary tract infection. Updated May, 2005.

Institute for Clinical Systems Improvement. Uncomplicated urinary

tract infection in women. 10<sup>th</sup> ed. July 2006. ACOG Committee on Practice Bulletins. Treatment of urinary tract infections in nonpregnant women. Obstet Genecol. 2008:91:785-794. Abrahamian FM. Infect Dis Clin N Amer. 2008;22:73-87. Gupta K. Clin Infect Dis. 2011;52:e103-20

<sup>&</sup>lt;sup>1</sup> E.coli resistance at PHC to ciprofloxacin 34%

<sup>&</sup>lt;sup>2</sup> Does NOT cover *Enterococcus* spp.