Guideline for the Management of Urinary Tract Infection in Non-Pregnant, Adult Outpatients

**Signs or symptoms suggestive of UTI present:** urinary frequency, urgency, dysuria, suprapubic pain, or hematuria

**Any of the following present:**
- Male gender
- Systemic symptoms
- Symptoms >7 days
- Diabetes mellitus
- Recent GU instrumentation

**Male gender**
- Immunosuppression

**Systemic symptoms**
- Nephrolithiasis

**Symptoms >7 days**
- Urinary obstruction
- Anatomical GU abnormality

**Diabetes mellitus**
- Clinical concern for pyelonephritis

**Recent GU instrumentation**
- Clinical concern for pyelonephritis

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**Uncomplicated UTI**

**Urine culture generally not indicated**

**Nitrofurantoin** 100mg PO BID for 5 days (nitrofurantoin is contraindicated if creatinine clearance <60 mL/minute)

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**Complicated infection**

**Clinical evidence of pyelonephritis?**
- Fever
- Nausea/vomiting
- Leukocytosis
- Flank pain
- CVA tenderness

**No**

**Yes**

**Complicated UTI**

**Pyelonephritis**

- Obtain urinalysis and culture (+/- gram stain)
- Blood cultures if systemic signs/symptoms

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**Assess risk factors for fluoroquinolone resistance:**
1. Hospitalization in previous 12 months? OR
2. Fluoroquinolone use in previous 12 months?

**Yes**

**Ceftriaxone** 1gm IV or IM daily until organism and susceptibility known, OR
**Amikacin** 10mg/kg IV or IM daily if *Pseudomonas* likely or if serious cephalosporin allergy

**Levofloxacin** 500mg or 750mg PO daily

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**No**

**Adjust antibiotics based on organism/susceptibility**

If quinolone-resistant AND ceftriaxone-susceptible organism:
**Cefixime** 400mg PO BID

*not for empiric use for suspected quinolone resistance

**Treatment duration varies by clinical scenario:** 7-14 days

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1. Likely pathogens: *E.coli*, *Klebsiella*, *Proteus*, *Enterobacter*, *Citrobacter*, *S. saprophyticus*
2. Likely pathogens: same as uncomplicated + *Pseudomonas*, *Enterococcus*
3. Each week of previous hospitalization or antibiotic use is associated with a two-fold increase in the likelihood of resistance to fluoroquinolones
4. Consider if recent hospitalization, long term care, previous UTI with *Pseudomonas*, or chronic urinary catheter
5. Gram-positive cocci by gram stain or culture suggestive of enterococci → add amoxicillin 500mg PO Q8hrs
6. Suggested dosing is for normal renal function, all treatment options except ceftriaxone must be adjusted for renal impairment
7. Uncomplicated pyelonephritis may be treated with 5 days of levo 750 daily