

DEFINITION

- Three or more UTIs over the course of 12 months

Uncomplicated UTIs occur in a healthy host in the absence of structural or functional abnormalities of the urinary tract

- Complicated UTI
 - » Anatomic Abnormalities: cystocele, diverticulum, fistula, indwelling catheter, vesicoureteral reflux
 - » Voiding Dysfunction: neurologic disease, high PVR, incontinence
 - » Urinary Tract Obstruction: ureteropelvic junction obstruction
 - » Other: diabetes mellitus, pregnancy, urolithiasis, immune compromised

INVESTIGATION

- Thorough history and physical

*Most females with uncomplicated recurrent urinary tract infections **DO NOT** require investigation*

- Who to investigate
 - » Previous urinary tract surgery or trauma
 - » Gross hematuria after resolution of infection
 - » Urea splitting organism such as Proteus
 - » Prior abdomino pelvic malignancy
 - » Pneumaturia, fecaluria or history of diverticulitis
 - » Repeated pyelonephritis

MANAGEMENT

Non-antibiotic Options	Antibiotic Options	
<ul style="list-style-type: none"> • Conservative Measures <ul style="list-style-type: none"> » Empty bladder after intercourse » Avoid spermicides » Avoid tub bath and bath oils » Stable bowel routine/wipe front to back • Vaginal Estrogen <ul style="list-style-type: none"> » Consider in postmenopausal women 	<ul style="list-style-type: none"> • Continuous Antibiotics for 3-6 mos <ul style="list-style-type: none"> » Trimethoprim/sulfamethoxazole (TMP/SMX) 80/400 mg daily or thrice weekly » Trimethoprim 100 mg po daily » Cephalexin 125 – 250 mg po daily » Nitrofurantoin 50 – 100 mg po daily » Norfloxacin 200 mg daily 	<ul style="list-style-type: none"> • Postcoital (within 2 hours of coitus) if UTI occurrence related to coitus <ul style="list-style-type: none"> » TMP/SMX 80/400 mg po » Ciprofloxacin 125 mg » Cephalexin 250 mg » Nitrofurantoin 50 or 100 mg » Norfloxacin 200 mg • Self-Start Antibiotics <ul style="list-style-type: none"> » Self treat with 3 days of antibiotics as soon as symptoms start. Expect resolution of symptoms within 48 hours

WHO TO REFER TO UROLOGY

*Most females with uncomplicated recurrent urinary tract infections **DO NOT** need a referral*

- Refer to urology when:
 - » risk factors for complicated UTI are present
 - » breakthrough infections despite antibiotics
- Prior to referral
 - » have a urine culture while symptomatic and 2 weeks after sensitivity adjusted treatment