## Complicated

- Definition
  - Females with comorbid medical conditions
  - All male patients
  - Indwelling foley catheters
  - Urosepsis/hospitalization
- Diagnosis
  - Urinalysis, Urine culture
  - Further labs, if appropriate.
- Treatment
  - Fluoroquinolone (or other broad spectrum antibiotic)
  - 7-14 days of treatment (depending on severity)
  - May treat even longer (2-4 weeks) in males with UTI



#### Special cases of Complicated cystitis

- Indwelling foley catheter
  - Try to get rid of foley if possible!
  - Only treat patient when symptomatic (fever, dysuria)
    - Leukocytes on urinalysis
    - Patient's with indwelling catheters are frequently colonized with great deal of bacteria.
  - Should change foley before obtaining culture, if possible
- Candiduria
  - Frequently occurs in patients with indwelling foley.
  - If grows in urine, try to get rid of foley!
  - Treat only if symptomatic.
  - If need to treat, give fluconazole (amphotericin if resistance)



### Recurrent Cystitis

- Want to make sure urine culture and sensitivity obtained.
- May consider urologic work-up to evaluate for anatomical abnormality.
- Treat for 7-14 days.

# Pyelonephritis

- Infection of the kidney
- Associated with constitutional symptoms fever, nausea, vomiting, headache
- Diagnosis:
  - Urinalysis, urine culture, CBC, Chemistry
- Treatment:
  - 2-weeks of Trimethroprim/sulfamethoxazole or fluoroquinolone
  - Hospitalization and IV antibiotics if patient unable to take po.
- Complications:
  - Perinephric/Renal abscess:
    - Suspect in patient who is not improving on antibiotic therapy.
    - Diagnosis: CT with contrast, renal ultrasound
    - May need surgical drainage.
  - Nephrolithiasis with UTI
    - Suspect in patient with severe flank pain
    - Need urology consult for treatment of kidney stone

### Prostatitis

- Symptoms:
  - Pain in the perineum, lower abdomen, testicles, penis, and with ejaculation, bladder irritation, bladder outlet obstruction, and sometimes blood in the semen
- Diagnosis:
  - Typical clinical history (fevers, chills, dysuria, malaise, myalgias, pelvic/perineal pain, cloudy urine)
  - The finding of an edematous and tender prostate on physical examination
  - Will have an increased PSA
  - Urinalysis, urine culture
- Treatment:
  - Trimethoprim/sulfamethoxazole, fluroquinolone or other broad spectrum antibiotic
  - 4-6 weeks of treatment
- Risk Factors:
  - Trauma
  - Sexual abstinence
  - Dehydration