Asymptomatic Bacteriuria (ASB)

- Bacterial growth ≥ 10^5 CFU/mL
- Non-contaminated urine sample
- No signs or symptoms of UTI
- May include pyuria
- For women, same organism in ≥ 2 consecutive specimens

Who has ASB?2
- Urinary catheters
- Impairment in bladder emptying
- Cerebrovascular disease
- Alzheimer’s or Parkinson’s disease
- Diabetes mellitus
- Institutionalized patients without urinary catheters3
  - 25-50% women
  - 15-40% men


Who should be treated?1,4
- Patients with symptoms
  - Urgency, hesitancy, frequency, dysuria, fever
- Pregnant women
  - Should be screened at 12-16 weeks
- Invasive urologic procedures
- Unclear evidence
  - critically ill
  - neutropenic
  - renal transplants
  - joint replacement surgery


What about patients unable to verbalize symptoms?
- Difficult to assess
- Non-specific presentation with confusion or fever
- In febrile institutionalized patients, bacteriuria has low PPV 8-11% for UTI5,6

Hazards of Overtreatment

- Side effects
- *Clostridium difficile* infection
- Colonization with drug-resistant organisms
- Undue costs
- Inappropriate treatment rates
  - between 17-26% \(^7\)
  - up to 52% with urinary catheters \(^8,9\)


Should patients with indwelling catheters be screened? \(^11\)

- No
- Biofilm usually causes universal bacteriuria by 4th day \(^2\)
- In symptomatic patients with catheter ≥ 2 weeks
  - Discontinue catheter
  - Obtain midstream specimen or specimen from new catheter


Summary

- Do not routinely screen UA or culture
- Order UA or culture only for symptoms or high clinical index of suspicion for infection
- Treat symptomatic UAs only when bacteria and significant pyuria present
- Remove current catheter before sampling for symptomatic patients with chronic catheterization
References