Saskatchewan
Infection Prevention and Control Program

Adapted from the
Massachusetts Infection Prevention Partnership

URINARY TRACT INFECTIONS AND ASYMPTOMATIC BACTERIURIA IN CONTINUING CARE

What is the difference and why is it important?

Asymptomatic bacteriuria is frequently mistaken for a urinary tract infection. To avoid unnecessary use of antibiotics and the potential harm they can cause, unless specific urinary tract symptoms are present, treatment of asymptomatic bacteriuria is NOT RECOMMENDED.

What is a urinary tract infection?

➢ an infection caused by bacteria that involves any part of the urinary system including the urethra, bladder, ureters and kidneys

What are the specific symptoms of a urinary tract infection (UTI)?[1]

➢ burning pain with urination (dysuria)
➢ pain, swelling or tenderness of testes, epididymis or prostate
➢ new costovertebral angle (lower back) pain or tenderness
➢ new or increased urinary frequency, urgency or incontinence
➢ suprapubic pain
➢ gross hematuria (blood in the urine)

These symptoms may also be accompanied by fever.

Please note: foul smelling or cloudy urine is not a symptom of a urinary tract infection but may be related to diet, dehydration, medication or hygiene.

Is a change in mental status, fatigue, or a fall a symptom of a urinary tract infection?

Urinary tract infection is less likely without specific symptoms.

Non-specific symptoms, such as a change in mental status, fatigue or a fall may be due to a variety of causes, including:

➢ pain
➢ dehydration
➢ depression
➢ poor sleep
➢ constipation
➢ medication side affects

It is important to consider a range of possible causes to prevent missing the real diagnosis.

Causes of non-specific symptoms may be evaluated by doing the following:

➢ Monitor vital signs and symptoms for several days
➢ Watch closely for progression of symptoms or change in clinical status
➢ Encourage fluid intake if appropriate
➢ Review for alternate causes noted above

[1]refer to “Guidelines for the Prevention and Treatment of Urinary Tract Infections (UTIs) in Continuing Care Settings” for further details (pp. 19-24)

How is a urinary tract infection diagnosed and treated?

If a resident is having symptoms of a urinary tract infection, a urine sample should be collected in a clean or sterile manner so as to minimize contamination.[1]
A urine culture identifies the type and amount of bacteria in the urine.
A diagnosis is made when **both** specific symptoms of the urinary tract infection and a positive culture are present. Urinary tract infections are treated with antibiotics.

What if there are bacteria detected in the urine sample but no symptoms of a urinary tract infection (UTI)?

Sometimes bacteria can live in the urinary tract and not cause an infection or a problem for the person. This is called asymptomatic bacteriuria and is found in up to 50% of elderly residents. In other words, **up to half of continuing care residents who have no symptoms, may have a positive urine culture without a urinary tract infection.**

Research has shown that there is no benefit from giving antibiotics to residents with asymptomatic bacteriuria.

What is the harm in giving antibiotics that may not be needed?

There are a number of reasons why people should only receive antibiotics if an infection is highly suspected or confirmed by a clinician. Some of the most important reasons not to give unnecessary antibiotics include the following:

1. As with many medications, there can be adverse side effects of antibiotics, including nausea and vomiting, rash, or other allergic reactions.

2. Antibiotics can lead to the development of *Clostridium difficile* infections in the bowel, which can cause a severe type of diarrhea with very serious consequences.

3. Unnecessary use of antibiotics can contribute to “antibiotic resistance.” Resistance means antibiotics become less effective against the bacteria they are intended to treat. Resistant organisms may leave you with no effective treatment for future infections.

Other References
Scottish Antimicrobial prescribing Group: Decision aid for diagnosis and management of suspected urinary Tract infection (UTI) in older people (May 2013)
Surveillance Definitions for Infection in Long-Term Care Facilities: Revisiting the McGeer Criteria (2012)