

What is a Urinary Tract Infection (UTI)?

- Urinary tract infections (UTIs) are the second most common type of infection in the body. Women are more prone to UTI's although the condition also affects men.
- The urinary tract is the group of internal organs that make, transport, store and remove urine from the body. These include the Kidneys, Ureter (tube that carries urine from kidney to bladder), bladder and urethra (tube that carries urine from bladder to the outside of the body).
- The most common part of the urinary tract to get an infection is the bladder. Infection here is called "cystitis".
- Most UTIs are caused by bacteria. Yeast and fungi can be other causes. Usually the body flushes out the bacteria when you urinate, however this may not always happen.

Symptoms of a UTI may include:

- A burning/stinging sensation when passing urine.
- Frequent or strong urges to pass urine even when you have little to pass.
- Cloudy, dark or blood stained urine.
- Foul smelling urine.
- Pain in your back or lower abdomen.
- Confusion (especially in the elderly).

When to obtain a urine sample

- **DO NOT SEND URINE SAMPLES IN ASYMPTOMATIC PATIENTS WITH POSITIVE DIPSTICKS**
- Only send if patient has two or more symptoms e.g. pyrexia of over 38° or new incontinence

- **Do not** treat asymptomatic bacteriuria in the elderly as it is very common
- Treating does not reduce mortality or symptomatic episodes, but increase antibiotic resistance and other side effects

Patients with Urinary Catheters

- **Do not** treat asymptomatic bacteriuria in those with indwelling catheters, as bacteriuria is very common and antibiotics increase side effects and antibiotic resistance.
- Treatment does not reduce mortality or prevent symptomatic episodes, but increase side effects & antibiotic resistance.
- Only send urine for culture in catheterised patients if features of systemic infection.

However, always:

- Exclude other sources of infection.
- Check that the catheter drains correctly and is not blocked.
- Consider need for continued catheterisation.
- If the catheter has been in place for more than 7 days, consider changing it before/when starting antibiotic treatment.
- **Do not** give antibiotic prophylaxis for catheter changes unless history of symptomatic UTIs due to catheter change

When else should a urine sample be taken?

- Pregnancy: If symptomatic, for investigation of possible UTI. In all at 1st antenatal visit - as asymptomatic bacteriuria is associated with pyelonephritis & premature delivery.
- Suspected pyelonephritis (loin pain and fever).
- Suspected UTI in men.
- Failed antibiotic treatment or persistent symptoms. E. coli with Extended-spectrum Beta-lactamase (ESBL) enzymes are increasing in the community.
- Recurrent UTI, abnormalities of genitourinary tract, renal Impairment more likely to have a resistant strain.

How to obtain a Urine Sample

- The aim is to get a specimen (sample) of urine from the middle of the bladder. Urine is normally sterile (no bacteria present). A midstream sample (MSU) is best as the first flow of urine that is passed may be contaminated with bacteria from the skin.
- Prior to obtaining an MSU, please advise the patient to wash their hands. Cleaning of the genital area is not necessary.
- Cleansing with antiseptic leads to false negatives
- The sooner the sample is given in to the doctor's surgery, or to the laboratory, the better. Within two hours is best. If that is not possible, put the sample in the fridge until you take it to the doctor or laboratory. The result of an MSU takes 2-3 days.

Patient advice on how to provide a urine specimen

- Women - hold open your labia (entrance to the vagina).
- Men - pull back your foreskin.
- Pass some urine into the toilet.
- Then, without stopping the flow of urine, catch some urine in the sterile bottle.
- Once you have enough urine in the bottle, finish off passing the rest of your urine into the toilet.
- **Do not** open the sterile bottle until you are ready to take the sample. You do not need to fill the bottle to the top, a small amount will do. (Some specimen bottles contain a preservative. If this is the case, a mark on the bottle will indicate the ideal amount of urine. However, if that is difficult, any amount is better than none.)
- Avoid touching any part of your genitals with the bottle, as this will increase the risk of contamination. Put the cap back on the container.
- Advise patient to wash their hands.