Urinary signs and symptoms

Do not treat asymptomatic bacteriuria in non-pregnant women as it does not reduce mortality or morbidity

First exclude vaginal and urethral causes of urinary symptoms:
- vaginal discharge: 80% do not have UTI
- urethritis—inflammation post sexual intercourse, irritants
- check sexual history to exclude sexually transmitted infections
- genitourinary syndrome of menopause (vulvovaginal atrophy)

THINK SEPSIS—check for signs/symptoms using local/national tool such as NICE, RCGP or NEWS2
- check for any new signs/symptoms of pyelonephritis* (see box below)

Does patient have any of 3 key diagnostic signs/symptoms?
- dysuria (burning pain when passing urine)
- new nocturia (passing urine more often than usual at night)
- urine cloudy to the naked eye

2 or 3 symptoms 1 symptom no

Are there other urinary symptoms that are severe?
- urgency
- frequency
- visible haematuria
- suprapubic tenderness

Perform urine dipstick test

Positive nitrite or leukocyte and RBC positive
- UTI likely

Positive leukocyte
- UTI equally likely to other diagnosis

Negative for all nitrite, leukocyte, RBC
- UTI less likely

Send urine culture if risk of antibiotic resistance
- If not pregnant and mild symptoms, watch & wait with back-up antibiotic or
- Consider immediate antibiotic using NICE/PHE guideline on lower UTI: antimicrobial prescribing

Review time of specimen (morning is most reliable)
- Send urine for culture to confirm diagnosis
- Consider immediate or back-up antibiotic (if not pregnant) depending on symptom severity using NICE/PHE guideline on lower UTI: antimicrobial prescribing

No urine culture
- No urine culture
- Reassure that UTI less likely
- Consider other diagnosis

All patients: share self-care and safety-netting advice using TARGET UTI leaflet
- If pregnant always send urine culture—follow national treatment guidelines if any bacteriuria

* Signs of pyelonephritis:
- kidney pain/tenderness in back under ribs
- new/different myalgia, flu like illness
- shaking chills (rigors) or temperature 37.9°C or above
- nausea/vomiting

Key:
- Suspected sepsis alert
- UTI symptom
- Action advised
- Other advice

UTI=urinary tract infection; NICE=National Institute for Health and Care Excellence; RCGP=Royal College of General Practitioners; NEWS2=National Early Warning Score 2; PHE=Public Health England; RBC=Red blood cells; TARGET=Treat Antibiotics Responsibly, Guidance, Education, Tools