These notes are for use together with the Colley Model.

2. Urinalysis

Use a dipstick to test the urine – see note below regarding patients over 65 years of age

Blood in the urine (haematuria) in the absence of infection must be investigated following national guidelines, to exclude serious pathology. The blood may not be visible to the naked eye, when it is called microscopic haematuria. While in many instances the cause is harmless, blood in the urine can indicate a serious disorder. Either way, it's important to determine the reason for the bleeding

An untreated urinary tract infection (UTI) may spread to the kidney, causing more pain and illness. It can also cause SEPSIS. The term *urosepsis* is usually used to describe sepsis caused by a UTI.



For those with recurrent UTI, it is advisable to carry out or refer for a bladder scan.

VISUAL APPEARANCE

If the urine is obviously infected or blood-stained, send a clean specimen for culture and microscopy (ensure there is no obvious reason for bleeding **outside** the urinary tract for example, menstruation). If the urine is clear, test with a urine dipstick Remember you are screening the urine for other abnormalities in addition to UTI.

Some food and medication can affect the colour of the urine. One common example is beetroot, which can temporarily turn the urine pink or red. Eating certain vegetables, for example asparagus or onions, can cause the urine of some individuals to have a pungent odour a few hours after eating.

RESULTS

If the results of the dipstick are negative to blood, protein, leucocytes and nitrites, discard and report as no evidence of infection. If any of the above is positive send for culture and microscopy. Any other abnormalities detected should be reported for further investigation and, along with the pH and specific gravity, recorded in the patient record.

Note regarding those over 65 years of age: Part of the initial continence assessment includes a routine urine dipstick general screening test. Be aware that up to half of older adults will have bacteria present in the bladder / urine (asymptomatic bacteriuria) and positive dipstick without an infection. This is not harmful and does not require treatment with antibiotics. (PHE, 2019). In this group of patients, the NEWS2 scoring system should always be used in confused individuals who are potentially symptomatic. (RCP, 2017).

References and further reading:

Diagnosis of urinary tract infections: Quick reference tool for primary care PHE publications Gateway number: GW-673 November 2007, last updated September 2019. Click here to view

In women, refer to: Urinary incontinence and pelvic organ prolapse in women: management. NICE guideline [NG123] Published date: April 2019, last updated: June 2019. Click here to view

Royal College of Physicians. National Early Warning Score (**NEWS**) 2: Standardising the assessment of acute-illness severity in the NHS. Updated report of a working party. London: RCP, 2017. Click here to view

Urine testing for health care assistants Click here to view

Yates A (2016). Urinalysis: how to interpret results. *Nursing Times;* Online issue 2, 1-3. Click here to view