

Innovative tests for diagnosing urinary tract infections (preliminary title)

Urinary tract infections (UTIs) are the most common condition found in primary care. Common symptoms of UTIs include painful urination, incontinence, frequency or urgency to urinate and pain in the back or lower abdomen.

UTIs are currently diagnosed using a combination of dipstick tests, if appropriate, and urine culture testing. Dipstick tests may miss UTIs and are not appropriate for all people. Urine culture tests can confirm a diagnosis of UTI and provide antibiotic susceptibility information to help decide which antibiotic is best to use. Culture testing can take up to 3 days and positive cultures do not always indicate diagnosis of a UTI. While waiting for the results, a UTI is often initially treated with empiric antibiotics that have side effects, may be less effective than targeted antibiotics, are typically broad-spectrum and could lead to antimicrobial resistance. Antibiotic choice is reviewed once culture results are available. The use of new technologies could help identify bacteria and antimicrobial susceptibility quicker and allow more rapid use of targeted antibiotics. This could lead to fewer unnecessary or ineffective antibiotic prescriptions, and potentially help reduce the incidence of antimicrobial resistance. Any improvement in accuracy of detecting UTIs could also lead to better decisions about care.

The NICE diagnostics assessment programme will evaluate innovative UTI tests in an early value assessment pilot. The assessment will map the evidence that is available on the technology, assess the potential clinical and cost-effectiveness and identify evidence gaps to help direct data collection to inform NICE guidance.