

Dipstick Diagnosis of Urinary Tract Infection

Table 4.18 Urine-testing strategies for children 3 years or older

Dipstick testing for leucocyte esterase and nitrite is diagnostically as useful as microscopy and culture, and can safely be used.	
If both leucocyte esterase and nitrite are positive	The child should be regarded as having UTI and antibiotic treatment should be started. If a child has a high or intermediate risk of serious illness and/or a history of previous UTI, a urine sample should be sent for culture.
If leucocyte esterase is negative and nitrite is positive	Antibiotic treatment should be started if the urine test was carried out on a fresh sample of urine. A urine sample should be sent for culture. Subsequent management will depend upon the result of urine culture.
If leucocyte esterase is positive and nitrite is negative	A urine sample should be sent for microscopy and culture. Antibiotic treatment for UTI should not be started unless there is good clinical evidence of UTI (for example, obvious urinary symptoms). Leucocyte esterase may be indicative of an infection outside the urinary tract which may need to be managed differently.
If both leucocyte esterase and nitrite are negative	The child should not be regarded as having UTI. Antibiotic treatment for UTI should not be started, and a urine sample should not be sent for culture. Other causes of illness should be explored.