key points

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Kidney stones are common with as many as 1 in 10 people developing a symptomatic stone. Up to 50% of stone formers will have at least one further symptomatic stone in their lifetime. Ureteric colic is unaffected by posture with patients often writhing in seemingly futile attempts to relieve pain. Immediate management comprises effective analgesia while urinalysis is the first step in confirming the diagnosis. One of the challenges facing the GP is to differentiate patients who warrant immediate hospital referral from those who can be seen less acutely.

Symptoms indicative of ureteric colic along with confirmed haematuria on urine dipstick has a reported sensitivity of 84% and specificity of 99%. All patients with suspected stone disease should have imaging performed promptly because of the risk of renal failure developing. NICE suggests that this should be done within 24 hours of presentation. Non-contrast CT has replaced intravenous urography as the modality of choice.

NSAIDs, such as diclofenac, are first-line analgesics and have demonstrated a reduced need for rescue medication when compared with intravenous paracetamol, opioids and antispasmodics. NICE suggests that alpha-blockers help the passage of distal ureteric stones < 10 mm. Further treatment options include extracorporeal shockwave lithotripsy (ESWL), ureteroscopy and percutaneous nephrolithotomy. NICE recommends the use of medical expulsive therapy (MET) after ESWL and has made a research recommendation for use of MET after ureteroscopy.

Risk of recurrence can be reduced by up to 60% with lifestyle advice alone, with some UK centres launching virtual stone clinics to address this goal. General measures to prevent stone recurrence include maintaining an adequate fluid intake (> 2 litres per day), weight reduction, avoiding sugary drinks and reducing dietary sodium and animal protein intake. Evidence supports the maintenance of a normal daily calcium intake of 700-1,200 mg for adults rather than dietary calcium restriction. These modifiable risk factors account for more than 50% of incident kidney stones. Increased fluid intake has been demonstrated by trial data to halve the risk of stone recurrence and is generally well tolerated.