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| Intervention | **140. Surgical removal of kidney stones (Ureteroscopy (URS) or Percutaneous Stone Surgery (PCNL), with or without stent)** |
| For the treatment of | Renal or ureteric stones |
| Commissioning Position | These interventions are commissioned as follows:  Age 16 years and over:   * URS for treatment of:   + renal or ureteric stone <20mm diameter if shockwave lithotripsy (SWL) is contraindicated e.g due to anatomical reasons, has failed or stone clearance not possible within 4 weeks OR   + renal stone (including staghorn) >20mm diameter if PCNL is contraindicated or not an option * PCNL for treatment of:   + renal stone (including staghorn) >20mm diameter   + renal stone <20mm diameter if SWL and URS have failed or are not an option   + ureteric stone 10-20mm diameter for impacted stone if URS has failed * Stent insertion following URS is commissioned if: * the stone is <20mm diameter AND * further treatment is anticipated OR * there is evidence of infection or obstruction OR * there is a solitary kidney   Age under 16 years   * URS for treatment of any renal or ureteric stone * PCNL for treatment of   + any renal stone 10mm diameter or larger   + renal stone <10mm diameter if SWL and URS have failed or PCNL is preferred due to anatomical reasons |
| Summary of Rationale | SWL has shorter hospital stays, less pain and fewer major adverse events compared to URS for renal stones <10mm diameter, although URS normally needs fewer treatments.  For ureteric stones <10mm diameter SWL has shown benefits in terms of readmission and fewer major adverse events, although URS had lower retreatment rates.  For renal and ureteric stones 10-20mm diameter the optimal strategy will depend on the stone and speed of access to treatment options.  Evidence shows no benefit of routine stenting after URS for adults with ureteric stones <20 mm and there is no evidence relating to stones >20mm. Stents are however associated with a number of adverse symptoms (dysuria, haematuria, irritative symptoms, frequency and urgency, abdominal and bladder pain).  Asymptomatic renal and ureteric stones <5mm diameter may pass spontaneously, so watchful waiting, potentially including medical therapy in the case of a ureteric stone e.g. alpha blocker carries less risk than other interventions. |
| References | [Surgical removal of kidney stones (EBI)](https://ebi.aomrc.org.uk/interventions/surgical-removal-of-kidney-stones/)  [NG118 Renal and ureteric stones: assessment and management (NICE)](https://www.nice.org.uk/guidance/ng118) |
| Effective from | April 2025 |
| Policy Review Date | April 2028 |