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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
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| 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 |