Appendix 1. Search Strategies

- CENTRAL Search strategy:
  1. Laparoscopic pyeloplasty
  2. Open pyeloplasty
  3. Pyeloplasty
  4. PUJ Obstruction
  5. Pelvicoureteric junction obstruction
  6. PUJ Obstruction
  7. PUJO
  8. UPJO
  9. Ureteropelvic junction obstruction

- EMBASE Search strategy via Ovid:

  1. obstruction/ or exp ureteropelvic junction obstruction/ or pujo.mp.
  2. PUJ obstruction.mp.
  3. hydronephrosis/ or UPJ obstruction.mp.
  4. pelviureteric junction obstruction.mp.
  5. exp laparoscopic surgery/ or laparoscopic pyeloplasty.mp.
  6. robotic pyeloplasty.mp. or robot assisted surgery/
  7. minimally invasive surgery/ or minimally invasive pyeloplasty.mp.
  8. pyeloplasty/ or kidney surgery/
9. exp pyeloplasty/ or open pyeloplasty.mp.

10. exp reconstructive surgery/

11. 5 or 6 or 7 or 8 or 9 or 10

12. randomized controlled trial.mp. or exp randomized controlled trial/

13. controlled clinical trial.mp. or exp controlled clinical trial/

14. exp "randomized controlled trial (topic)"/ or randomized.mp.

15. trial.ab.

16. groups.ab.

17. 12 or 13 or 14 or 15 or 16

18. exp animals/ not humans.sh.

19. 1 or 2 or 3 or 4

20. 17 not 18

21. 11 and 19 and 20

- **MEDLINE Search Strategy via Ovid:**

  1. kidney diseases/ or hydronephrosis/ or ureteral obstruction/

  2. pelvic ureteric junction obstruction.mp.

  3. pelviureteric junction obstruction.mp.

  4. PUJ obstruction.mp.
(ureteropelvic junction or ureteropelvic junction obstruction).mp. [mp=title, abstract, original title, name of subject heading word, keyword heading word, organism supplementary concept word, protocol supplementary concept word, unique identifier, synonyms]

6. upj obstruction.mp.

7. 1 or 2 or 3 or 4 or 5 or 6

8. laparoscopic pyeloplasty.mp.

9. robotic pyeloplasty.mp.

10. Urologic Surgical Procedures/ or Laparoscopy/ or urological surgery.mp. or Robotic Surgical Procedures/

11. minimally invasive pyeloplasty.mp.

12. 8 or 9 or 10 or 11

13. Reconstructive Surgical Procedures/

14. open pyeloplasty.mp.

15. pyeloplasty.mp.

16. 13 or 14 or 15

17. randomized controlled trial.pt.

18. controlled clinical trial.pt.

19. randomized.ab.

20. trial.ab.

21. groups.ab.
22. 17 or 18 or 19 or 20 or 21

23. exp animals/ not humans.sh.

24. 22 not 23

25. 7 and 12 and 16 and 22 and 24