

Heterogeneity in Outcome Reporting in RCTs of Laparoscopic and Robotic Surgery for Pelvic Organ Prolapse: A Systematic Review

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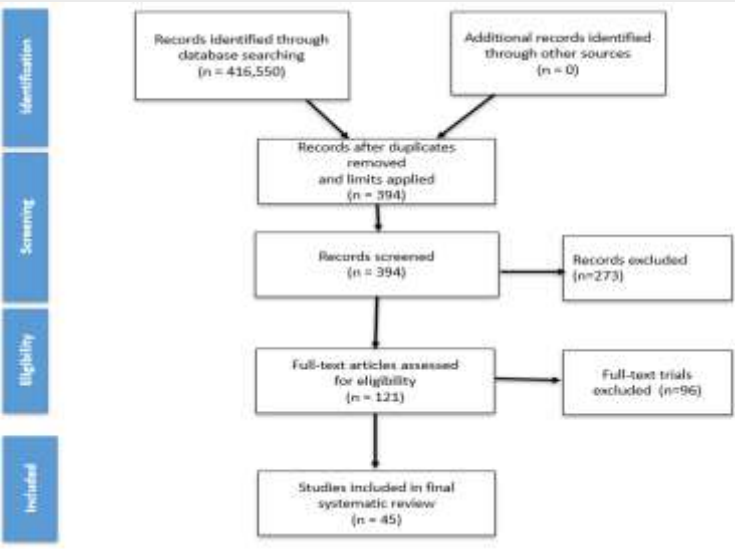
HYPOTHESIS / AIMS OF STUDY

This study aimed to systematically evaluate the range, consistency, and quality of reported outcomes and outcome measures in RCTs of laparoscopic and robotic POP surgery.

STUDY DESIGN, MATERIALS AND METHODS

A systematic review was conducted in accordance with PRISMA methodology. Electronic databases (EMBASE, PubMed, and Cochrane CENTRAL) were searched from inception to May 2025.

Methodological quality was assessed using the Jadad score, while outcome reporting quality was evaluated using MOMENT criteria.



RESULTS

Forty-five RCTs involving 4,566 women were included. A total of 83 distinct outcomes and 59 outcome measures were identified, grouped into 12 domains.

The most frequently reported outcomes were operative time (60-65%), blood loss (~60%), postoperative pain (~50%), quality of life (~50%), and anatomical success (~60%). However, substantial heterogeneity was observed in outcome definitions, reporting frequency, and measurement tools.

Patient-reported outcomes were assessed in most studies, but with marked variability, particularly in quality-of-life measures, where 24 different instruments were used. The POP-Q system was the most consistently applied objective measure.

INTERPRETATION OF RESULTS

Outcome reporting in RCTs of minimally invasive POP surgery is highly heterogeneous, particularly for patient-reported and long-term outcomes. This variability limits comparability across studies and complicates meta-analysis and evidence-based decision-making.

The underrepresentation of patient-centered outcomes highlights a misalignment between research reporting and patient priorities.

CONCLUDING MESSAGE

There is a clear need for standardization of outcome selection and reporting in POP surgery trials. Development and implementation of core outcome sets will improve comparability, enhance research quality, and support patient-centered care.

Outcome domain	Outcome
Intraoperative technical outcomes and observations	Blood Loss
	Vascular injury rate
	Visceral injury rate (bladder, ureter, bowel)
Postoperative outcomes and complications following surgery	Postoperative pain
	Postoperative analgesia use
	Morbidity
Urinary outcomes	Stress Urinary Incontinence
	Urinary symptoms
	De novo urinary incontinence
Bowel outcomes	De novo constipation
	Obstructed defecation
	Feecal incontinence
Recurrence	Reoperation for prolapse (any type of operation vaginal,abdominal, laparoscopic or robotic)
	Pelvic Organ Prolapse Symptoms
	Retreatment for POP (conservative management e.g, pessaries)
Sexual outcomes	Dyspareunia
Operative data	Operative time
	Length of hospital stay
	Reoperation cost