

Supplementary

Table S1 Summary of findings for perioperative outcomes: HoLEP compared to TURP for patients with prostate volume less than 100 mL or 100 g

Outcome	No. of participants	Studies	Relative effect (95% CI)	Anticipated absolute effects (95% CI)			Certainty	What happens
				Without HoLEP	With HoLEP	Difference		
Total operative time	704	7 RCTs	–	The mean total operative time ranged from 42–75 min	–	MD 17.89 min, higher (9.18 higher to 26.6 higher)	⊕⊕⊕○, moderate ^a	
Catheterization time	764	8 RCTs	–	–	–	SMD 1.44 SD, lower (2.17 lower to 0.7 lower)	⊕⊕○○, low ^{a,b}	
Hospital stay	764	8 RCTs	–	–	–	SMD 1.01 SD, lower (1.58 lower to 0.44 lower)	⊕⊕⊕○, moderate ^a	
Resected tissue	764	8 RCTs	–	–	–	SMD 0.47 SD, higher (0.1 higher to 0.85 higher)	⊕⊕⊕○, moderate ^a	
Haemoglobin loss	600	7 RCTs	–	The mean haemoglobin loss ranged from 0.9–4.4 g/dL	–	MD 0.29 g/dL, lower (0.52 lower to 0.07 lower)	⊕⊕○○, low ^{a,b}	
Transfusion	764	8 RCTs	RR 0.16 (0.05–0.49)	5.0%	Study population	4.2% fewer (4.8 fewer to 2.6 fewer)	⊕⊕⊕○, moderate ^b	
				11.0% ^c	High 1.8% (0.6–5.4)			9.2% fewer (10.4 fewer to 5.6 fewer)

Patient or population: patients with prostate volume less than 100 mL or 100 g; Setting: urology male patient; Intervention: HoLEP. Comparison: TURPGRADE Working Group grades of evidence: high certainty, we are very confident that the true effect lies close to that of the estimate of the effect; moderate certainty, we are moderately confident in the effect estimate: the true effect is likely to be close to the estimate of the effect, but there is a possibility that it is substantially different; low certainty, our confidence in the effect estimate is limited: the true effect may be substantially different from the estimate of the effect; very low certainty, we have very little confidence in the effect estimate: the true effect is likely to be substantially different from the estimate of effect. ^a, there is significant heterogeneity; ^b, there may be publication bias; ^c, the value is the extreme number in the control group from the studies included in the review. *, the risk in the intervention group (and its 95% CI) is based on the assumed risk in the comparison group and the relative effect of the intervention (and its 95% CI). CI, confidence interval; MD, mean difference; RR, risk ratio; SMD, standardised mean difference.

Table S2 Summary of findings for postoperative functional outcomes and complications: HoLEP compared to TURP for patients with prostate volume less than 100 mL or 100 g

Outcome	No. of participants	Studies	Relative effect (95% CI)	Anticipated absolute effects (95% CI)			Certainty	What happens
				Without HoLEP	With HoLEP	Difference		
12-month AUA-SS	739	8 RCTs	–	The mean 12-month AUA-SS ranged from 3.7–9.1	–	MD 1.27 lower (2.52 lower to 0.03 lower)	⊕⊕⊕○, moderate ^a	
12-month Qmax	639	6 RCTs	–	The mean 12-month Qmax ranged from 18–28 mL/s	–	MD 0.29 mL/s, higher (0.34 lower to 0.92 higher)	⊕⊕⊕○, moderate ^b	
12-month PVR	539	5 RCTs	–	The mean 12-month PVR ranged from 11–27 mL	–	MD 9.93 mL, lower (18.59 lower to 1.27 lower)	⊕⊕⊕○, moderate ^a	
12-month QoL	364	4 RCTs	–	The mean 12-month QoL ranged from 0.8–2.8	–	MD 0.21 lower (0.75 lower to 0.32 higher)	⊕○○○, very low ^{a,b,c}	
Stress incontinence	483	5 RCTs	RR 0.65 (0.24 to 1.80)	Study population			⊕⊕⊕○, moderate ^e	
				3.8%	2.5% (0.9 to 6.9)	1.3% fewer (2.9 fewer to 3.1 more)		
Urethral stricture	647	6 RCTs	RR 0.70 (0.29 to 1.72)	Study population			⊕⊕⊕○, moderate ^e	
				3.5%	2.4% (1 to 5.9)	1.0% fewer (2.5 fewer to 2.5 more)		
Bladder neck contracture	343	4 RCTs	RR 0.98 (0.33 to 2.85)	Study population			⊕⊕○○, low ^{c,e}	
				3.6%	3.5% (1.2 to 10.2)	0.1% fewer (2.4 fewer to 6.6 more)		
				High				
				7.5% ^d	4.9% (1.8 to 13.5)	2.6% fewer (5.7 fewer to 6 more)		
				8.3% ^d	5.8% (2.4 to 14.3)	2.5% fewer (5.9 fewer to 6 more)		
				6.7% ^d	6.6% (2.2 to 19.1)	0.1% fewer (4.5 fewer to 12.4 more)		

Patient or population: patients with prostate volume less than 100 mL or 100 g; Setting: Urology male patient; Intervention: HoLEP; Comparison: TURP. GRADE Working Group grades of evidence: high certainty, we are very confident that the true effect lies close to that of the estimate of the effect; moderate certainty, we are moderately confident in the effect estimate: the true effect is likely to be close to the estimate of the effect, but there is a possibility that it is substantially different; low certainty: our confidence in the effect estimate is limited: the true effect may be substantially different from the estimate of the effect; very low certainty: we have very little confidence in the effect estimate: the true effect is likely to be substantially different from the estimate of effect. ^a, there is significant heterogeneity; ^b, there may be publication bias; ^c, only four studies are included, and some studies rated as having a high risk of bias; ^d, the value is the extreme number in the control group from the studies included in the review; ^e, with wide confidence intervals. *, the risk in the intervention group (and its 95% CI) is based on the assumed risk in the comparison group and the relative effect of the intervention (and its 95% CI). CI, confidence interval; MD, mean difference; RR, risk ratio.