

APPENDIX

Supplementary Table 1. Codes used to define cohorts and outcomes in TriNetX database	
BPH	
ICD-10-CM	N40
TURP	
CPT	52601
PVP	
CPT	52648
HoLEP/ThuLEP	
CPT	52649
WVTT	
CPT	53854
PUL	
CPT	52441
CPT	52442
TUIP	
CPT	52450
RWT	
CPT	0421T
PAE	
CPT	37243
OSP	
CPT	55821
CPT	55831
LSP/RSP	
CPT	55867
TUMT	
CPT	53850
TUNA	
CPT	53852
Laser coagulation of prostate*	
CPT	52647

*Laser coagulation of prostate was used to define overall re-operative rates but was not examined as an individual procedure.

Supplementary Table 2. Expanded cohort demographics based on primary BPH procedure												
	TURP	PVP	ThuLEP	WVTT	PUL	TUIP	RWT	PAE	OSP	LSP	TUMT	TUNA
Number of patients	44179	20287		3415	6538	978	3562	4855	2120	1936	916	1110
Age at index	69.9±9.0	70.2±9.2	70.1±8.2	69.2± 8.9	67.4± 9.5	61.2±3.4	69.1±7.7	70.3± 8.9	69.7±7.7	70.4±7.4	71.1±9.6	67.4±8.6
Race												
White	74.2%	76.2%	78.0%	77.2%	81.6%	69.3%	77.5%	70.5%	71.7%	74.1%	79.6%	80.7%
Black or African American	8.7%	5.9%	10.6%	4.9%	7.7%	10.5%	7.3%	12.7%	10.7%	9.6%	7.7%	4.3%
Unknown race	6.8%	7.5%	5.2%	5.5%	4.3%	8.5%	5.3%	5.0%	8.8%	5.0%	6.0%	9.5%
Asian	6.1%	7.0%	2.3%	8.3%	3.5%	5.9%	4.3%	6.9%	3.5%	4.0%	3.0%	2.4%
Other race	3.4%	2.3%	3.6%	3.2%	2.3%	4.8%	5.2%	4.0%	5.0%	6.7%	3.0%	2.7%
Native Hawaiian or Other Pacific Islander	0.6%	0.9%	0.2%	0.6%	0.4%	0.5%	0.2%	0.7%	0.2%	0.3%	0.4%	0.2%
American Indian or Alaskan Native	0.2%	0.2%	0.1%	0.3%	0.2%	0.5%	0.2%	0.2%	0.1%	0.3%	0.3%	0.2%
Ethnicity												
Not Hispanic or Latino	70.8%	82.2%	72.7%	74.5%	76.4%	70.8%	83.2%	72.7%	71.5%	65.8%	64.2%	62.9%

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Unknown ethnicity	18.0%	13.3%	21.9%	18.4%	16.9%	19.9%	5.6%	18.5%	15.7%	16.7%	34.2%	33.7%
Hispanic or Latino	11.2%	4.5%	5.4%	7.1%	6.7%	9.3%	11.2%	8.8%	12.8%	17.5%	1.6%	3.4%
Past medical history												
Chronic obstructive pulmonary disease	12%	13%	9%	9%	13%	10%	5%	14%	7%	6%	24%	9%
Coronary artery disease	35%	37%	29%	30%	33%	25%	27%	42%	27%	24%	47%	28%
Type 2 diabetes mellitus	33%	32%	27%	28%	30%	30%	25%	40%	28%	30%	39%	24%
History of urinary tract infection	43%	41%	39%	32%	27%	42%	26%	25%	43%	37%	52%	37%
OSA	20%	22%	21%	23%	30%	20%	19%	21%	15%	17%	27%	19%
Hematuria	50%	48%	40%	33%	34%	40%	36%	32%	53%	45%	48%	40%
Urinary retention	65%	61%	70%	52%	47%	57%	48%	36%	72%	68%	62%	53%
Obesity	30%	30%	31%	24%	36%	30%	30%	37%	24%	29%	41%	22%
Diabetes mellitus	33%	33%	28%	25%	31%	30%	26%	41%	28%	30%	39%	25%
Prostate cancer	19%	12%	18%	6%	10%	12%	14%	11%	25%	22%	14%	11%
Bladder cancer	8%	5%	4%	3%	3%	7%	2%	3%	4%	2%	4%	4%

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Geographic distribution												
Northeast	28%	29%	41%	27%	23%	26%	11%	20%	25%	21%	2%	27%
Midwest	13%	22%	20%	10%	18%	13%	29%	11%	12%	7%	34%	17%
South	39%	33%	30%	42%	39%	46%	50%	46%	52%	52%	45%	46%
West	18%	15%	9%	20%	19%	14%	10%	23%	10%	19%	17%	10%
Unknown	2%	1%	<1%	1%	1%	1%	0%	<1%	1%	1%	2%	0%