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Abstract 25

Similar five-year rates of post-surgery medication use between PUL, TURP, and GreenLight: A US healthcare claims atudy

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Introduction: Patients electing benign prostatic hyperplasia (BPH) surgery may wish to cease BPH medical therapy, though some patients may continue or begin medication post-surgery to treat residual symptoms. In this large-scale healthcare claims analysis, we produce rates of continued and de novo BPH medical therapy following transurethral resection of the prostate (TURP), GreenLight photoselective vaporization (PVP), and UroLift prostatic urethral life (PUL) procedures.

Methods: Patients with ≥1 year of followup who underwent outpatient TURP (n=20 319), GreenLight (n=10 517), or PUL (n=5793) were identified within this representative sample of 2015–2021 Medicare and commercial claims. Linking pharmaceutical claims to outpatient surgical claims produced rates of continuous and de novo use of alpha-blockers, 5ARI, or combination therapy; only patients with ≥2 instances of medical therapy prescriptions following BPH surgery were included. Perioperative medication usage was defined as ≥2 medication prescriptions within three months only and not beyond; prolonged use was assessed through one and five years postoperative.

Results: Rates of perioperative medical therapy were similar between all treatments. The rates of continued medication use following PUL, TURP, and PVP were 2.5%, 4.0% and 4.2%, respectively. De novo use was low after all therapies; lowest for PUL (0.5%) and similar between TURP (0.9%) and PVP (1.0%). The total one-year medical therapy rate was lowest for PUL (3.9%, TURP 6.1%, PVP 6.5%). Rates of continued and de novo use were: PUL (8.4% continued, 1.0% de novo), TURP (7.0% continued, 2.0% de novo), and PVP (7.2% continued, 1.7% de novo). The total combined five-year medical therapy rate was similar between all three therapies: PUL (10.3%), TURP (10.2%), and PVP (10.2%).

Alpha-blockers were the leading BPH drug class utilized through one and five years post-PUL, TURP, and PVP.

Conclusions: Post-surgery medication use is an important, yet relatively unexplored, element of the BPH patient journey. Rates of medication use through one year were higher following TURP and PVP compared to PUL, and were equivalent at five years. This may indicate that in a real-world setting, TURP and PVP patients could have more advanced disease that doesn't fully respond to the benefits of the selected intervention. The five-year real-world rate of medication usage for PUL in this analysis is similar to the rate demonstrated in the LIFT pivotal trial (10.3% vs. 10.7% LIFT).

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Abstract 26

Twelve-month functional outcomes of Rezum vs. GreenLight PVP: A propensity score matching study

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Introduction: Rezūm steam vapor therapy has gained popularity as a new, minimally invasive surgical technique for patients with benign prostatic hyperplasia. The currently available literature on Rezūm has been promising, demonstrating effective lower urinary tract symptom relief and favorable preservation of sexual functions. In this multicenter study, we sought to compare the functional outcomes of Rezūm against a similar cohort of patients undergoing 180W XPS GreenLight photovaporization (PVP).

Methods: Data were obtained from the Global GreenLight Group database which includes eight high-volume surgeons from seven international centers, as well as data from the Canadian Rezūm database (three high-volume surgeons). Patients with previous benign prostatic hyperplasia (BPH) surgery were excluded. Twelve-month changes in International Prostate Symptom Score (IPSS), Qmax, and post-void residual volume (PVR) were compared between GreenLight and Rezūm using 1:1 propensity score matching (PSM), adjusting for age, prostate size, median lobe, and catheter dependency.

Results: A total of 4094 patients were included; 3614 (88.3%) underwent a PVP, and 480 (11.7%) underwent Rezūm (Table 1). After PSM, 167 patients were included in each arm. At six-month followup, Rezūm demonstrated an IPSS score of 8.6±5.8 compared to 5.8±4.1 in the PVP group (-13 vs. -17 points from baseline, respectively, p<0.001) (Table 2). This trend continued at 12-month followup; the PVP group exhibited significant improvements in IPSS reduction from baseline (6.0 95% CI: 4.6, 7.4, p<0.001), Qmax change from baseline (8.6 ml/s, 95% CI 12.3, 4.9, p<0.001), and PVR decrease from baseline (126.6 ml, 95% CI: 95.7, 157.4, p<0.001) compared to Rezūm. In terms of safety profile, GreenLight has higher overall 30-day complications, including hematuria (Table 3). Hospitalization rates were significantly lower for Rezūm (0.6% vs. 15.8%, p<0.001).

Conclusions: Rezūm and GreenLight procedures both demonstrated significant IPSS lower urinary tract symptom (LUTS) improvements as well as postoperative functional parameters when compared to baseline. The significant differences in postoperative outcomes between the observed technologies relates to the degree of tissue ablation with the trade-off of reduced complications, procedure time, length of stay, and cost. Such details should be discussed during BPH procedure counselling.

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Abstract 27

Assessing the risk of urinary tract infections and urosepsis after HoLEP: An event rate meta-analysis

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Introduction: Holmium laser enucleation of the prostate (HoLEP) is the gold-standard approach for the management of benign prostatic hyperplasia (BPH), setting benchmarks for efficacy and safety. However, the scope for enhancing patient outcomes by minimizing postoperative infections such as urinary tract infections (UTI) and urosepsis demands thorough investigation. Our meta-analysis aims to evaluate these post-HoLEP infectious complications and identify the impact of clinical and procedural parameters on their prevalence.

Methods: We registered our protocol on Prospero (CRD42022380847). Adhering to Preferred Reporting Items for Systematic Reviews and Meta-analysis (PRISMA) guidelines, we searched multiple databases including MEDLINE, Embase, Web of Science, and CINAHL, and conducted a manual search of pre-print servers and Google Scholar. The inclusion criterion was centered around observational studies focusing on UTI or sepsis incidents post-HoLEP. Random effect modelling was utilized for event rate meta-analysis, and meta-regressions were used to determine the influence of patient and procedural characteristics.

Results: We analyzed data from 20 522 patients derived from 33 peer-reviewed publications and 11 conference abstracts. The prevalence of UTI and urosepsis following HoLEP was determined to be 4.05% and 0.7%, respectively. Meta-regression

Abstract 26. Table 1. Baseline patient characteristics

Variables	Full dataset				PS matched dataset			
	Greenlight PVP laser (n=3614)	Rezūm (n=480)	p	Std. diff.[a]	Greenlight PVP laser (n=167)	Rezūm (n=167)	p	Std. diff.[a]
Age, years, mean (SD)	70.3±8.9	68.0±8.5	<0.001	0.0004	67.2±8.3	67.6±8.6	0.73	-0.393
Median lobe, n (%)								
No	974 (62.3%)	159 (33.4%)	<0.001	0.4623	63 (37.7%)	66 (39.5%)	0.74	0.3605
Yes	590 (37.7%)	317 (66.6%)			104 (62.3%)	101 (60.5%)		
Prostate volume, cc, median (IQR)	64 (47– 90)	65 (48–95)	0.29	-0.2663	62 (46–89)	64 (50–87)	0.66	-0.1362
PSA, ng/dL, median (IQR)	3.25 (1.74–6)	3.1 (1.6–5.4)	0.13		2.71 (1.46–4.55)	3.1 (1.7–5)	0.24	
History of urinary retention, n (%)								
No	563 (63.5%)	385 (80.2%)	<0.001		89 (78.1%)	151 (90.4%)	0.004	
Yes	323 (36.5%)	95 (19.8%)			25 (21.9%)	16 (9.6%)		
Catheter-dependent, n (%)								
No	2022 (64.5%)	436 (90.8%)	<0.001	-1.0046	166 (99.4%)	166 (99.4%)	1	0
Yes	1113 (35.5%)	44 (9.2%)			1 (0.6%)	1 (0.6%)		
Alpha-blockers use, n (%)								
No	748 (20.7%)	365 (76.0%)	<0.001		18 (10.8%)	153 (91.6%)	<0.001	
Yes	2663 (73.7%)	115 (24.0%)			147 (88.0%)	14 (8.4%)		
Unknown	203 (5.6%)	0 (0.0%)			2 (1.2%)	0 (0.0%)		
5-ARI use, n (%)								
No	2210 (61.2%)	362 (75.4%)	<0.001		67 (40.1%)	127 (76.0%)	<0.001	
Yes	1210 (33.5%)	118 (24.6%)			98 (58.7%)	40 (24.0%)		
Unknown	194 (5.4%)	0 (0.0%)			2 (1.2%)	0 (0.0%)		
Anticoagulants/antiplatelets use, n (%)								
No	2267 (65.7%)	425 (88.5%)	<0.001		120 (71.9%)	146 (87.4%)	<0.001	
Yes	1183 (34.3%)	55 (11.5%)			47 (28.1%)	21 (12.6%)		
IPSS, median (IQR)	22 (18–-27)	23 (18–27)	0.32		22 (18–27)	23 (18–27)	0.96	
IPSS QOL, median (IQR)	4 (3–5)	5 (4–5)	<0.001		4 (4–5)	5 (4–5)	0.11	
Qmax, mL/s, median (IQR)	6.7 (4.5–9.1)	8 (5–11.3)	<0.001		6 (4–7.8)	8 (5–11)	<0.001	
PVR, mL, median (IQR)	120 (30–279)	103 (30–215)	0.025		150 (58.5–235.5)	122 (36–250)	0.4	

[a]standardized differences are only reported for the variables used in the propensity score. IPSS: International Prostate Symptom Score; IQR: interquartile range; PSA: prostate specific antigen; PVP: photovaporization of the prostate; PVR: post-void residual volume; Qmax: maximum urinary flow rate; QOL: quality of life; SD: standard deviation; Std. diff.: standardized difference.

analyses revealed a decrement in UTI occurrence correlating with increased prostate volume (b=-0.0332, SE=0.0101, 95% CI [-0.0531, -0.0134], z=-3.28, p=0.0010). Contrarily, an increased UTI risk was associated with greater volumes of prostate tissue resection (b=0.0405, SE=0.0103, 95% CI [0.0203, 0.0608], z=3.93, p<0.0001). Post-HoLEP UTI incidence is on the rise (b=0.0636, SE=0.0287, 95% CI [0.0072, 0.1199], z=2.21, p=0.0270). Intraoperative and preoperative factors were not observed as influential factors for the development of UTI following HoLEP.

Conclusions: This represents the first evidence synthesis estimating the prevalence of UTI and sepsis following HoLEP. The prevalence of UTI (4.05%) and sepsis (0.7%) following HoLEP is notably low, reinforcing HoLEP's standing as a highly effective and safe treatment modality for BPH management. This study highlights the crucial role of prostate volume and the extent of tissue removal in influencing postoperative infection risk, underscoring the need for tailored surgical planning. Our findings point to a need for further investigation into

Abstract 26. Table 2. Functional outcomes

Functional outcomes	Full dataset			PS matched dataset		
	Greenlight PVP laser (n=3,614)	Rezūm (n=480)	p-value	Greenlight PVP laser (n=167)	Rezūm (n=167)	p-value
IPSS change at 6 months, median (IQR)	-17.0 (-21.0, -12.0)	-12.0 (-19.0, -7.0)	<0.001	-17.0 (-23.0, -12.0)	-13.0 (-19.0, -8.0)	<0.001
IPSS change at 12 months, median (IQR)	-18.0 (-23.0, -13.0)	-13.0 (-19.0, -8.0)	<0.001	-17.0 (-22.0, -13.0)	-13.0 (-19.0, -8.0)	<0.001
IPSS QoL change at 6 months, median (IQR)	-4.0 (-5.0, -3.0)	-2.0 (-4.0, -1.0)	<0.001	-3.0 (-4.0, -3.0)	-3.0 (-4.0, -2.0)	0.001
IPSS QoL change at 12 months, median (IQR)	-4.0 (-5.0, -3.0)	-3.0 (-4.0, -2.0)	<0.001	-3.5 (-4.0, -3.0)	-3.0 (-4.0, -2.0)	<0.001
Qmax change at 6 months, mL/s, median (IQR)	12.0 (8.0,17.0)	1.0 (-3.3,10.0)	<0.001	14.0 (9.0,18.0)	2.9 (0.0,14.1)	<0.001
Qmax change at 12 months, mL/s, median (IQR)	12.0 (8.0,17.0)	4.3 (1.0,10.0)	<0.001	14.0 (9.4,18.0)	4.0 (0.0,10.0)	<0.001
PVR change at 6 months, mL, median (IQR)	-143.0 (-309.0, -62.0)	-70.0 (-160.0,15.0)	<0.001	-122.0 (-213.0, -45.0)	-24.0 (-174.5,34.6)	0.007
PVR change at 12 months, mL, median (IQR)	-150.0 (-316.0, -69.0)	-84.0 (-175.0,2.0)	<0.001	-128.5 (-210.5, -50.0)	-109.0 (-204.0, -1.0)	0.076

IPSS: International Prostate Symptom Score; IQR: interquartile range; PVP: Photovaporization of the prostate; PVR: post-void residual urine volume; Qmax: maximum urinary flow rate; QoL: quality of life.

Abstract 26. Table 3. Safety outcomes

	Greenlight PVP laser (n=3,614)	Rezūm (n=480)	p	Greenlight PVP laser (n=167)	Rezūm (n=167)	p
Overall complication first 30 days, n (%) No Yes	 1559 (60.4%) 1021 (39.6%)	 426 (88.8%) 54 (11.2%)	<0.001	 88 (53.0%) 78 (47.0%)	 150 (89.8%) 17 (10.2%)	<0.001
UTI, n (%) No Yes	 2051 (94.6%) 118 (5.4%)	 419 (93.9%) 27 (6.1%)	0.57	 147 (93.0%) 11 (7.0%)	 161 (96.4%) 6 (3.6%)	0.22
Frequency, urgency or dysuria, n (%) No Yes	 1674 (77.2%) 493 (22.8%)	 447 (93.1%) 33 (6.9%)	<0.001	 121 (76.6%) 37 (23.4%)	 152 (91.0%) 15 (9.0%)	<0.001
Hematuria, n (%) 	 1951 (90.0%) 216 (10.0%)	 473 (98.5%) 7 (1.5%)	<0.001	 126 (79.7%) 32 (20.3%)	 164 (98.2%) 3 (1.8%)	<0.001
Anemia/Transfusion, n (%) No Yes	 1400 (98.5%) 21 (1.5%)	 480 (100.0%) 0 (0.0%)	0.004	 105 (100.0%)	 167 (100.0%)	
OAB, n (%) No Yes	 529 (98.9%) 6 (1.1%)	 474 (98.8%) 6 (1.2%)	1	 104 (99.0%) 1 (1.0%)	 164 (98.2%) 3 (1.8%)	1
Hospitalization first 30 days, n (%) No Yes	 1234 (86.6%) 191 (13.4%)	 476 (99.2%) 4 (0.8%)	<0.001	 139 (84.2%) 26 (15.8%)	 166 (99.4%) 1 (0.6%)	<0.001
Catheter duration, days, mean (SD)	1.7 (2.0)	11.0 (7.1)	<0.001	1.0 (0.8)	8.2 (3.8)	<0.001
TOV failure, n (%) No Yes	 2510 (94.1%) 157 (5.9%)	 331 (74.4%) 114 (25.6%)	<0.001	 114 (100.0%) 0 (0.0%)	 134 (80.2%) 33 (19.8%)	<0.001

OAB: overactive bladder; PVP: Photovaporization of the prostate; SD: standard deviation; TOV: trial of void; UTI: urinary tract infection.

optimizing preoperative patient stratification by prostate size and the need to evaluate the implications of antibiotic prophylaxis within patients deemed at risk, as this can lead to enhanced patient outcomes by aligning them more closely with their individual risk profiles.

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Abstract 28

Neighborhood social vulnerability impacts severity of benign prostatic hyperplasia symptoms

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Introduction: Social determinants of health (SDOH) are known to impact how likely a patient will be to report a diagnosis of benign prostatic hyperplasia (BPH) as well as the likelihood of pursuing surgery. Since management of BPH is often guided by patient symptoms, it is important to understand whether a difference in BPH symptoms drives a socially vulnerable patient's decision to pursue urologic care. This study aimed to investigate the association between social vulnerability, as measured by the Centers for Disease Control and Prevention's Social Vulnerability Index (SVI), and the severity of symptoms in patients with BPH using the American Urological Association (AUA) Symptom Index (AUA-SI) Questionnaire.

Methods: A retrospective analysis was conducted on medical records of new BPH patients who completed the AUA-SI at a single institution from October 25, 2018, to December 20, 2023. Demographic and clinical data were collected. Stratified analysis was performed with obstructive, irritative, and quality of life (QOL) sub-scores. The obstructive sub-score was defined as the sum of incomplete emptying, intermittency, weak stream, and straining. The irritative sub-score was defined as frequency, urgency, and nocturia. High-SVI neighborhoods were identified as those in the 75th percentile or above nationally. Statistical analyses, including univariate tests and multivariate linear regression, were performed to evaluate the relationships between SVI and AUA-SI.

Results: The study included 16 365 patients, with 981 (6.0%) from high-SVI neighborhoods. High-SVI individuals reported significantly worse overall AUA-SI (10.8

Abstract 28. Table 1. Baseline characteristics

	Social Vulnerability Index		
	<75 N= 15 384	≥75 N= 981	p
Age	66.1±11.90	62.8±13.20	<0.0001
Race			
White	14 550 (94.57%)	722 (73.60%)	<0.0001
Non-white	834 (5.43%)	259 (26.40%)	
Ethnicity			
Non-Latinx	15 249 (99.12%)	924 (94.19%)	<0.0001
Latinx	135 (0.88%)	57 (5.81%)	
Comorbidities			
Diabetes	2353 (15.30%)	168 (17.13%)	0.1350
Hypertension	5178 (33.66%)	307 (31.29%)	0.1370
Coronary artery disease	2022 (13.14%)	111 (11.31%)	0.1100
Chronic kidney disease	1791 (11.64%)	121 (12.33%)	0.5460
Number of comorbidities			
0	3422 (22.24%)	181 (18.45%)	0.2635
1	3183 (20.69%)	210 (21.41%)	
2	2108 (13.70%)	130 (13.25%)	
3	839 (5.45%)	48 (4.89%)	
4	206 (1.34%)	15 (1.53%)	

Mean values are presented with the corresponding standard deviations (± SD); P values represent results of two-sided student's t tests for continuous and chi-squared tests for dichotomous variables.

Abstract 28. Table 2. Analysis of AUA Symptom Index (AUA-SI) by Social Vulnerability Index (SVI) percentile

AUA-SI Total	Parameter	Confidence interval	p
Unadjusted analysis			
SVI (>75th %ile)	10.75	(10.25–11.25)	0.0002
SVI (<75th %ile)	9.80	(9.68–9.92)	
Adjusted analysis			
SVI (highest quartile)	1.23	(0.57–1.88)	<0.001
Age at visit (years)	0.06	(0.05–0.08)	<0.001
Race (non-white)	-0.08	(-0.69–0.52)	0.786
Ethnicity (Latinx)	-0.23	(-0.89–0.43)	0.491
Number of comorbidities	0.33	(0.19–0.48)	<0.001
AUA-SI Total	**Parameter**	**Confidence interval**	**p**
Unadjusted analysis			
SVI (>75th %ile)	5.50	5.26–5.74	0.0011
SVI (<75th %ile)	5.10	5.04–5.16	
Adjusted analysis			
SVI (highest quartile)	0.45	0.13–0.77	0.005
Age at visit (years)	0.04	0.04–0.05	<0.001
Race (non-white)	0.19	-0.10–0.48	0.208
Ethnicity (Latinx)	-0.17	-0.49–0.14	0.284
Number of comorbidities	0.21	0.14–0.28	<0.001
AUA-SI Total	**Parameter**	**Confidence interval**	**p**
Unadjusted analysis			
SVI (>75th %ile)	5.25	4.93–5.57	0.000
SVI (<75th %ile)	4.70	4.62–4.78	
Adjusted analysis			
SVI (highest quartile)	0.77	0.36–1.19	<0.001
Age at visit (years)	0.02	0.01–0.03	<0.001
Race (non-white)	-0.27	-0.65–0.11	0.165
Ethnicity (Latinx)	-0.06	-0.47–0.36	0.787
Number of comorbidities	0.13	0.03–0.22	0.007
AUA-SI Total	**Parameter**	**Confidence interval**	**p**
Unadjusted analysis			
SVI (>75th %ile)	2.77	2.66–2.88	
SVI (<75th %ile)	2.50	2.48–2.53	0.0001
Adjusted analysis			
SVI (highest quartile)	0.26	0.12–0.40	<0.001
Age at visit (years)	0.003	0.00–0.01	0.033
Race (non-white)	0.19	0.06–0.31	0.004
Ethnicity (Latinx)	0.03	-0.11–0.17	0.678
Number of comorbidities	0.09	0.06–0.12	<0.001

Parameters for unadjusted analyses are mean values. Parameters for adjusted analyses are mean differences. P values for unadjusted analyses represent results of two-sided student's t tests. P values for adjusted analyses represent results of multiple linear regression.

vs. 9.8; p<0.001), irritative sub-score (5.5 vs. 5.1; p<0.001), obstructive sub-score (5.3 vs. 4.7; p<0.001), and QOL (2.8 vs. 2.5; p<0.001). Factors such as younger age and a greater number of comorbidities were independently associated with worse AUA-SI and sub-scores while non-white race and Latinx ethnicity showed no significant impact in our multivariate analysis.
Conclusions: High-SVI patients report more severe BPH symptoms at new urology clinic visits. Severity of symptoms may be explained by decreased access to primary and urologic care. The role of age and number of comorbidities in explaining this relationship should be further explored. These findings highlight the importance of lowering barriers in access to urologic care for underserved groups.
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Abstract 29

Characteristics and trends of industry-sponsored research funding to urologists in the United States between 2014 and 2022

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Introduction: Urologists encounter hurdles in securing public research funding, prompting a growing dependence on industry support for research. Nonetheless, limited insight exists regarding current financial associations between urologists and the industry for research in the United States. Past studies have primarily emphasized non-research payments, provided only monetary figures, or did not capture payments for research in which urologists were principal investigators. As such, we leveraged two federal databases to comprehensively evaluate the scope and trends of industry-sponsored research payments to urologists from 2014 to 2022.
Methods: We identified all active American urologists using the Centers for Medicare and Medicaid Services (CMS) National Plan and Provider Enumeration System database and extracted their industry-sponsored research payment data from the CMS Open Payments database. We performed descriptive analyses of payment amounts, characteristics, and trends. All monetary amounts are presented in 2022-adjusted USD.
Results: Among 13 902 active American urologists, 1330 (9.6%) received at least one industry research payment between 2014 and 2022. In total, urologists received $605.1 M during this time frame. Of all industry research payments, 98.7% ($597.4 M) were associated research payments for research where urologists served as principal investigators, while only 1.3% were directly provided to individual urologists. The top 10% of urologists in terms of industry research payment amounts received 79.3% ($480.0 M) of total research payments. Research payments for registered clinical trials totaled $159.0 M (26.3% of all research payments). Only 0.4% ($2.3 M) of research payments were made for preclinical research. More than half ($345.2 M, 57.0%) of industry research payments to urologists were for 10 products of which eight had cancer-related indications. More than $162.1 M were associated with enzalutamide (Xtandi) and 86.8 M were associated with pembrolizumab (Keytruda). The relative change in total payments showed a significant mean annual increase of 13.9% (95% confidence interval: 11.6–16.3%, p<0.001) in payment amount and 5.5% (2.2–8.8%, p=0.001) in number of payments. There was no significant trend in the number of urologists receiving industry research payments. Mean industry research payments were higher in male ($492,502) compared to female ($111,523) urologists.
Conclusions: Industry-sponsored research payments to urologists, including for studies in which urologists are the principal investigators, are substantial and increased in both payment amount and number between 2014 and 2022. Industry-sponsored research funding remains concentrated in a subset of urologists and primarily funds clinical trials for oncologic medical products. Male urologists receive larger mean amounts compared to their female counterparts.
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Abstract 30

Canadian urology resident research productivity: A cross-sectional study

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Introduction: Scholarship is an important aspect of selecting future urology residents and subsequent postgraduate training. Understanding the current baseline of research productivity among Canadian urology residents, along with factors contributing to scholarly success, can provide insight for curriculum development and potential applicants.
Methods: This cross-sectional study included all Canadian urology residents as of November 2023. Data on trainees were collected via residency program websites and systematic web searches, with publication metrics sourced from Scopus. The total number of publications during residency was separated from documents pre-residency and divided by the resident's postgraduate year (PGY) to calculate publications-per-PGY, the average number of publications produced each year in residency. Descriptive statistics were used to characterize demographics. A higher number of publications or publications-per-PGY was defined as being within the top 15% of residents. Binary logistic regressions were used to model the associations between residency program and alma mater with being in the top 15%.
Results: Overall, 181 Canadian urology residents were reviewed, of which 67% of residents were male. The majority of residents (57%) had not completed a graduate degree before entering training. Twenty-three per cent of residents are graduate degree holders. All PGY levels had a median of 1.0 pre-residency publications, except for PGY-1s, who had 2.0 (p=0.38). Median total publications is 4.0 [IQR 1.0–8.0], and the median publication-per-PGY is 0.75 [IQR 1.28]. Median h-index is 2.0 [IQR 0-4.0]. Male residents had a median of 1.0 pre-residency publications [IQR 0.0–4.0], while females had 0.0 [IQR 0.0–3.0] (p=0.02). This difference did not persist during residency (p=0.07). Graduate degree holders were more likely to have a higher total number of publications (OR 2.46, p=0.02); however, this became insignificant in the average annual number of publications during residency (OR 1.91, p=0.08), suggesting that productivity during residency is not influenced by previous degrees. Two medical schools (B=0.34, p=0.003; B=0.34, p=0.006) and one residency program (B=0.43, p<0.001) were significantly associated with higher publications-per-PGY.
Conclusions: Our study reveals variations in research productivity among Canadian urology residents. We did not obseve an increasing trend in research productivity prior to residency. While previous graduate education and sex are associated with pre-residency publication productivity, these associations were no longer observed during residency.
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Abstract 31

Effect of private equity ownership on access to outpatient urologic cancer care

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Introduction: Private equity (PE) acquisition of urology practices has become the predominant mode of consolidation within the specialty in the past decade. Despite the growing proportion of PE-owned urology clinics, the impact of this ownership model on access to outpatient urologic care is not fully understood. Therefore, we sought to compare appointment availability and wait times between PE-owned and non-PE-owned urology clinics for two common urologic complaints.
Methods: We identified all PE-owned urology clinic locations as of June 2022 (n=390) using a combination of internet search, news releases, PE-platform websites, and an online database of private equity data. For each PE-owned location, a unique, geographically matched, non-PE-owned clinic was used as a control.

Each office was called using a "secret shopper" method with a standardized script. The caller requested an appointment on behalf of their Medicare-aged father for evaluation of elevated prostate-specific antigen (PSA) or gross hematuria with bladder tumor (BCa). Each clinic was contacted twice by unique callers, once for each complaint. The primary outcome was appointment success, and the secondary outcome was time from call to soonest available appointment. We compared outcomes using chi-squared tests and a Poisson regression.

Results: PE-owned and non-PE-owned clinics treated the presenting complaints with similar frequency (PSA: 93% vs. 94%, p=0.5; BCa: 85% vs. 88%, p=0.3). Wait time in days until the next available appointment was similar for PE-owned clinics compared to non-PE-owned clinics for both complaints (PSA: 18 vs. 19, p=0.7; BCa: 16 vs. 13, p=0.06). If available, the time in days until the soonest next appointment with an advanced practice provider was also similar between PE-owned and non-PE-owned clinics (PSA: 13 vs. 12, p=0.6; BCa: 13 vs. 11, p=0.7). Amongst PE-owned clinics, wait time in days was similar for both complaints (18 vs. 16, p=0.3). Amongst non-PE-owned clinics, wait time in days was longer for elevated PSA compared to BCa (19 vs. 13, p=0.003).

Conclusions: PE-owned clinics and non-PE-owned clinics treated the presenting complaints of elevated PSA and a new bladder tumor evaluation at similar rates. Wait times were not significantly different between PE- and non-PE-owned clinics for either complaint. Access to care in PE-owned clinics is likely clinically similar to geographic-matched controls for Medicare patients with elevated PSA or BCa.

Funding: N/A

Abstract 32

Addressing disparities in kidney transplant outcomes: Insights from lupus nephritis patients on race, gender, and donor sources

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Introduction: Lupus nephritis (LN) occurs almost twice as frequently in Blacks as in non-Hispanic whites (NHW) and the prognosis in Black patients is significantly worse. Progression to end-stage renal disease (ESRD) in the Black population is almost nine times greater than in NHW. Despite higher rates of ESRD, Black individuals spend longer times on the waiting list and have a higher incidence of diabetes after transplant. We aimed to investigate the factors contributing to the disproportionate outcomes of LN among minority populations.

Methods: We conducted a retrospective analysis from the United Network for Organ Sharing database containing 6317 participants with LN to examine transplant outcomes among racial, ethnic, and sex groups. A collection of pertinent demographic characteristics was conducted for both recipients and organ donors. Kaplan-Meier Product Limit analysis was generated for graft failure and mortality among racial groups and sexes. Multivariate Cox regression analyses were performed to determine significance for clinically suspected risk factors.

Results: Blacks had the highest graft failure rate while Asians had the lowest graft failure rate (p<0.001). White recipients were more likely to be male (22.66%, p<0.001), re-transplant (10%, p=0.001), or live donor transplant (51%, p<0.001) recipients, and were less likely to be on dialysis at the time of transplant (66%, p<0.001). Blacks waited the longest on the waitlist (688 days, p<0.001) and were more likely to receive kidneys from donors who were diabetic (5%, p=0.006), hypertensive (18%, p<0.001), after cardiac death (16%, p=0.001), and with high body mass index (BMI) (28%, p<0.001). For deceased donor transplants, being older (HR=0.991, p=0.004), Asians (HR=0.578, p=0.002), or Hispanic (HR=0.726, p=0.006) reduced the risk of graft failure by 1%, 42%, and 27% respectively. The results for living donor transplants were similar.

Conclusions: These findings emphasize that numerous racial disparities exist in transplant medicine. Black individuals often receive poorer quality kidneys and experience the highest rate of graft failure when compared to non-Black patients. Research in this topic should guide clinical practice. Physicians should be aware of these discrepancies in order to identify those patients in higher risk groups for transplant failure. Further exploration is necessary not only to identify additional gaps in care, but to identify processes to improve the equity of kidney transplantation across racial and ethnic groups.

Funding: N/A

Abstract 33 – NOT PUBLISHED

Abstract 34

A legal database review of urethroplasty-related litigations

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Introduction: Urethroplasty has a high success rate for the correction of urethral strictures. Typically, postoperative patients have catheters for 1–3 weeks, making sanitary care important. Although they are rare, possible complications include urinary tract infections, epididymo-orchitis, voiding dysfunction, positioning injury, and stricture recurrence. These complications introduce the potential for liability risk. To date, no studies have looked at urethroplasty-related litigations. We aimed to characterize litigations involving urethroplasties and trends in their medical and legal characteristics.

Methods: State and federal cases from two legal databases (Westlaw and Bloomberg Law) were identified using the search term "urethroplasty". Cases from January 1979 to June 2023 were identified and reviewed. Cases that did not mention the urologist, preoperative care, postoperative care, or complications during the operation were excluded from the study. Cases were categorized based on topic, parties involved, and whether they resulted in settlement. All monetary amounts are presented in USD.

Results: Our search yielded 57 unique legal cases. Of these, 18 fit analysis criteria. Eight (44%) of the cases involved medical malpractice, of which half involved medical malpractice by the urologist. Two malpractice cases by urologists ended in settlements awarding respective plaintiffs $810 000 and $1 462 250. One (5.5%) of the 18 cases involved a product malfunction that resulted in the plaintiff being awarded $81 500. Interestingly, nine (50%) of the 18 cases involved prisoners. Of these, four cases (22%) involved prisoners who experienced communication negligence and scheduling difficulties for appointments. Two cases focused on delays in resource distribution to patients postoperatively, and another two cases were due to the limited space prisoners received during their recovery.

Conclusions: Lawsuits focused on urethroplasties are rare at the state and federal court levels. Of the litigated cases, prisoners were commonly involved. Educating healthcare prison staff on the importance of sanitary care and patients on compliance may reduce the frequency of lawsuits and improve patient care.

Funding: N/A

Abstract 35

Evaluating preoperative patient-reported outcomes prior to benign prostatic hyperplasia surgical intervention

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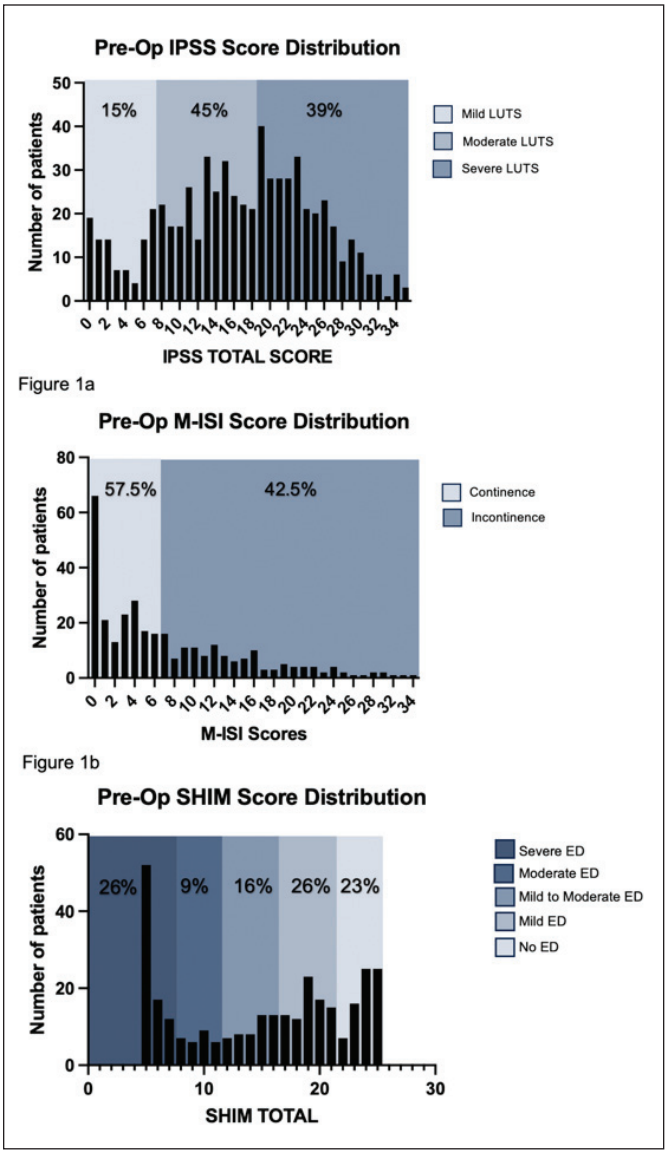
Introduction: Benign prostatic hyperplasia (BPH) literature often emphasizes postoperative patient-reported outcome (PRO) measures. However, few highlight preoperative PRO findings that may ultimately drive patients to seek surgical intervention. The purpose of this study was to provide a descriptive analysis of preoperative PROs prior to BPH surgery and to compare preoperative PROs among the varied surgical interventions.

Methods: This is a retrospective analysis of a single-institution BPH database from January 2021 to December 2023. Descriptive analyses were completed for preoperative International Prostate Symptom Score (IPSS), Michigan Incontinence Symptom Score (MISI), and Sexual Health Inventory for Men (SHIM) for both total and subgroup PRO scores. When stratified by surgery, transurethral resection of the prostate (TURP) was used as the referent. Mann-Whitney tests were utilized where appropriate. Figure 1 thresholds utilized score stratifications, and MISI >7 was defined as incontinence as described in the literature.

Results: The mean IPSS score was 16.60 (of 35) with quality of life (QOL) score 3.95 (of 6), with a significant difference between the voiding and storage subdomains (9 of 20 vs. 8 of 15, p<0.0001) (Table 1). Fifteen per cent had mild lower urinary tract symptoms (LUTS) (1–7), 45% had moderate LUTS (8–19), and 39% had severe LUTS (20–35) (Figure 1). The mean MISI score was 7.44 (of 40), with 43% of patients meeting the criteria for preoperative incontinence (total score >7) (Figure 1a). Preoperative urge urinary incontinence (UUI) scores were significantly greater than stress urinary incontinence (SUI) scores (3 vs. 1, p<0.0001). The mean SHIM score was 15.08 (of 25), with 26% severe, 9% moderate, 16% mild to moderate, 26% mild, and 23% no erectile dysfunction (Figure 1b). When stratified by surgery, IPSS total and sub-scores varied significantly by surgical intervention, while MISI scores and SHIM scores did not vary by surgery (Table 2).

Conclusions: Preoperative BPH patients on average have moderate LUTS with worse storage symptoms than voiding symptoms, more UUI than SUI, and mild to moderate erectile dysfunction. Notably, Urolift patients had significantly worse IPSS voiding sub-scores and simple prostatectomy had significantly lower IPSS storage sub-scores and total scores, while holmium laser enucleation of the prostate (HoLEP) patients had significantly worse IPSS QOL scores than transurethral resection of prostate (TURP). These preoperative parameters are essential to recognize before surgery, as they can help providers better counsel patients undergoing BPH surgical intervention.

Funding: N/A



Abstract 35. Figure 1. Preoperative IPSS, MISI, and SHIM score distributions. ED: erectile dysfunction; IPSS: International Prostate Symptom Score; LUTS: lower urinary tract symptoms; MISI: Michigan Incontinence Symptom Index; SHIM: Sexual Health Inventory for Men Questionnaire.

Abstract 35. Table 1. Descriptive analysis of preoperative patient reported outcomes

	N	Median	Interquartile range	Mean	Standard deviation
IPSS voiding (out of 20)	648	9	4–13	8.97	5.37
IPSS storage (out of 15)	648	8	5–11	7.63	3.88
IPSS QOL (out of 5)	648	4	3–5	3.95	1.50
IPSS total (out of 35)	**648**	**17**	**11–23**	**16.60**	**8.26**
MISI SUI (out of 12)	321	1	0–2.5	1.49	2.08
MISI UUI (out of 12)	321	3	0–6	3.50	3.41
MISI pad (out of 8)	321	0	0–0	0.76	1.66
MISI bother (out of 8)	321	1	0–3	1.70	2.04
MISI total (out of 40)	**321**	**5**	**1–12**	**7.44**	**7.53**
SHIM erectile function (out of 20)	311	13	6–17	11.95	5.66
SHIM satisfaction (out of 5)	311	3	1–5	3.14	1.60
SHIM total (out of 25)	**311**	**16**	**7–21**	**15.08**	**7.12**

IPSS: International Prostate Symptom Score; MISI: Michigan Incontinence Symptom Index; QOL: quality of life; SHIM: Sexual Health Inventory for Men Questionnaire; SUI: stress urinary incontinence; UUI: urgency urinary incontinence.

Abstract 35. Table 2. Preoperative patient-reported outcomes by surgery with TURP as referent

Median	TURP	Simple prostatectomy	HoLEP	REZUM	UroLift
IPSS voiding (of 15)	9	7	9	10	11*
IPSS storage (of 15)	7	5*	8	8	8
IPSS QOL (of 5)	4	4	5*	4	4
IPSS total (of 35)	**17**	**14***	**18**	**18**	**19**
MISI SUI (of 12)	1	0	1	0	0
MISI UUI (of 12)	3	3	3	1.5	1
MISI pad (of 8)	0	0	0	0	0
MISI bother (of 8)	1	0	2	0	1
MISI total (of 40)	**5**	**4**	**6**	**2.5**	**4**
SHIM erectile function (of 20)	12	14	6	13	15.5
SHIM satisfaction (of 5)	3	4	2	4	3.5
SHIM total (of 25)	**16**	**16.5**	**16.5**	**18**	**14**

*Denotes significantly significant difference p<0.05 with TURP as the reference group via Mann-Whitney test. HoLEP: holmium laser enucleation of the prostate; IPSS: International Prostate Symptom Score; MISI: Michigan Incontinence Symptom Index; QOL: quality of life; SHIM: Sexual Health Inventory for Men Questionnaire; SUI: stress urinary incontinence; TURP: transurethral resection of the prostate; UUI: urgency urinary incontinence.