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Abstract 6

Lidocaine solution vs. lidocaine gel instillation for pain management during intravesical botulinum toxin

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Introduction: Effective analgesia for patients undergoing intravesical botulinum toxin (BoNT) is not well-studied. Pre-procedural bladder instillation of lidocaine solution remains standard practice but does require significant time and resources. The primary objective of this study is to compare pain scores immediately following intravesical BoNT using pre-procedural intravesical lidocaine instillations and lidocaine gel vs lidocaine lubricating gel alone.

Methods: All patients with intact bladder sensation undergoing BoNT between March 1 and September 1,2022, were included. Prior to June 1, patients received intravesical 2% lidocaine solution instillation for 30 minutes and lidocaine gel immediately prior to treatment (group 1). After June 1, patients received lidocaine gel (Instillagel) alone (group 2). The visual analogue pain score (VAS) was used to measure patient reported pain immediately following BoNT. Treatment failure was defined as patient requesting to stop treatment during the procedure or patient request to perform future treatments under sedation. Patient demographics, post-procedural complications, and treatment failures were collected by prospective chart review and compared using t-test and Chi-squared test. The Mann-Whitney U test was used to compare pain scores between treatment groups.

Results: A total of 80 patients were included (mean age 61 years, 75% female, 56% with overactive bladder, 30% receiving first treatment). Thirty-nine patients (49%) were included in group 1 and 41 patients (51%) in group 2. There were no significant differences in baseline characteristics between treatment groups ($p>0.05$). There was no significant difference in overall pain scores between groups: group 1 median VAS 3.0 vs. group 2 median VAS 4.0 ($p=0.11$). There was no significant difference in pain scores by sex, indication for treatment, or first vs. subsequent BoNT treatment ($p>0.05$). Post-procedural complications occurred in four patients in group 1 (three UTI, one hematuria) compared to two patients in group 2 (two UTI). Treatment failure did not occur in either group.

Conclusions: The use of lidocaine lubricating gel alone immediately before BoNT provided comparable pain control to traditional pre-procedural lidocaine solution instillation and lidocaine gel. There were no treatment failures and complications were low in both groups. The use of lidocaine gel alone may be an acceptable analgesia alternative while improving efficiency of treatment.

Abstract 6. Table 1. Descriptive characteristics of patients undergoing intravesical botulinum toxin under local cystoscopy stratified by type of anesthesia received: Intravesical lidocaine solution or lidocaine gel

Variable	Solution (n=39)	Gel (n=41)	p
Age (years) mean (SD)	62.2 (16.0)	59.9 (17.2)	0.47
Sex n (%)			
Female	30 (76.9)	30 (73.2)	0.70
Male	9 (23.1)	11 (26.8)	
Indication, n (%)			
OAB	23 (59.0)	22 (53.7)	0.88
NLUTS	15 (38.5)	18 (43.9)	
Other	1 (2.5)	1 (2.4)	
Previous treatment, n (%)			
Yes	27 (69.2)	29 (70.7)	0.88
No	12 (30.8)	12 (29.3)	

Abstract 6. Table 2. A comparison of pain scores for patients receiving intravesical lidocaine solution or lidocaine gel

Pain variables median (Q1, Q3)	Solution (n=39)	Gel (n=41)	p
Overall pain score	3.0 (2.0, 5.0)	4.0 (3.0, 5.0)	0.11
Sex			
Female	4.0 (2.0, 5.0)	4.5 (3.0, 5.0)	0.14
Male	3.0 (3.0, 4.0)	3.0 (2.0, 5.0)	0.81
Indication			
OAB	4.0 (3.0, 6.0)	4.5 (3.0, 5.0)	0.54
NLUTS	3.0 (1.0, 4.0)	4.0 (2.0, 5.0)	0.21
Other	NA	NA	NA
Previous treatment			
Yes	4.0 (2.0, 5.0)	5.0 (3.0, 5.0)	0.14
No	3.0 (2.0, 5.0)	4.0 (2.0, 4.5)	0.81

Abstract 7

Positive preoperative cultures but not bacterial species predict postoperative urine culture results after holmium laser enucleation of the prostate (HoLEP)

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Introduction: Urinary tract infections (UTI) are a significant complication that can occur after holmium laser enucleation of the prostate (HoLEP). This study sought to evaluate risk factors associated with positive urine cultures following HoLEP.

Methods: Subjects were included in a prospectively maintained database. Analysis sought to determine the contribution of pre-defined variables (age, prostate size, Charlson comorbidity score, surgical time [surrogate for case difficulty], presence of a catheter preoperatively, postoperative urinary retention, and preoperative positive culture) on urine culture positivity at 60 days postoperatively. Statistical analyses included logistic regression and ANOVA.

Results: Data from 136 subjects were included in the database and were evaluated a median of 13.37±6.72 months after their HoLEP. Postoperative positive cultures were noted in 23 subjects (16.91%). Preoperative positive cultures were found to predict positive postoperative urine cultures (odds ratio 3.78, confidence interval 1.18–12.78, $p=0.03$); however, the preoperative and postoperative results were discordant in nine of 14 subjects with both positive preoperative and postoperative cultures.

Conclusions: Positive preoperative cultures were predictive of positive postoperative cultures; however, the preoperative and postoperative often grew discordant bacteria. Host factors increasing susceptibility to bacteriuria may explain these findings.

Abstract 8

Clinical impact of electronic health record patient portal distribution of the American Urological Association Symptom Score questionnaire

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Introduction: Recent American Urological Association (AUA) guidelines for the management of benign prostatic hyperplasia (BPH) recommend the routine collection of symptom score (AUA-SS) data by validated questionnaires. We hypothesize that distribution of questionnaires through an electronic patient portal (EPP) will increase patient completion of the questionnaires, allowing for improved institutional adherence to AUA guidelines

Methods: We performed a retrospective, cross-sectional study of men undergoing a new patient visit (NPV) for a chief complaint of lower urinary tract symptoms (LUTS) at an academic medical center. On January 2021, we initiated distribution of AUA-SS questionnaires through the EPP seven days prior to the visit; previously, these questionnaires were distributed in paper format at the time of the visit. Our primary outcome measure was the successful completion of the AUA-SS; secondary outcome measures included new BPH medications or surgery scheduled within six months of the visit. Statistical significance (Stata/SEv16.1) was determined using two-tailed Fisher's exact and Kruskal-Wallis tests for categorical and continuous variables, respectively.

Results: We reviewed 100 NPV for BPH; 50 NPV occurred prior to EPP collection and 50 NPV occurred after. Ten patients were excluded due to chronic Foley catheter use. Our population was majority non-Hispanic White (NHW; 79%); furthermore, 35 men (31%) were already taking medical therapy for BPH symptoms. Pre-EPP collection, only 28% (n=13) of AUA-SS scores were collected; this increased to 61% (n=26) following EPP collection (p=0.003). Median AUA-SS scores were higher post-EPP collection (17, IQR 12–24) compared to pre-EPP collection (14, IQR 9–22) although not statistically significant (p=0.30). Following routine EPP collection of the AUA-SS, new BPH prescriptions (14%) and BPH surgery scheduled (19%) within six months of the NPV were higher compared to prior (7% and 12%, respectively), although not statistically significant (p=0.31, p=0.55, respectively).

Conclusions: Our study demonstrated that distribution of validated questionnaires via EPP significantly increased completion rate of the AUA-SS in patients undergoing evaluation for LUTS, increasing compliance with AUA guidelines. Our results are limited by the study's retrospective nature and low numbers due to its preliminary nature. We plan to continue data collection and present the finalized results at a future date.

Abstract 8. Table 1. Patient demographics, pre-visit BPH medications, and whether AUA-SS was collected and impact on BPH management, stratified by whether the AUA-SS questionnaire was distributed via EPP or not

	All patients N=90	Pre-EPP n=47	Post-EPP n=43	p
Age at visit, yrs, mean, SD	64.4, 11.5	64.2, 9.8	64.6, 13.3	0.87
Race/ethnicity, n (%)				0.96
Non-Hispanic Whites	71 (78.9)	38 (80.9)	33 (76.7)	
Non-Hispanic Blacks	10 (11.1)	5 (10.6)	5 (11.6)	
Hispanic	3 (3.3)	1 (2.1)	2 (4.7)	
Other/declined/unknown	6 (6.7)	3 (6.4)	3 (7.0)	
BPH medications prior to visit, n (%)				
Alpha blockers	31 (34.4)	14 (29.8)	17 (39.5)	0.38
5-ARI	4 (4.4)	3 (6.4)	1 (2.3)	0.62
Collection of AUA-SS, n (%)	39 (43.3)	13 (27.7)	26 (60.5)	0.003
AUA-SS total score, median (IQR)	16 (9–23)	14 (9–22)	17 (12–24)	0.30
Changes to management, n (%)				
BPH medications ordered	9 (10.1)	3 (6.5)	6 (14.0)	0.31
Surgery ordered	13 (15.2)	5 (11.6)	8 (18.6)	0.55

Abstract 9

The changing roles of urologists, radiologists, and APPs in uro-radiology procedures

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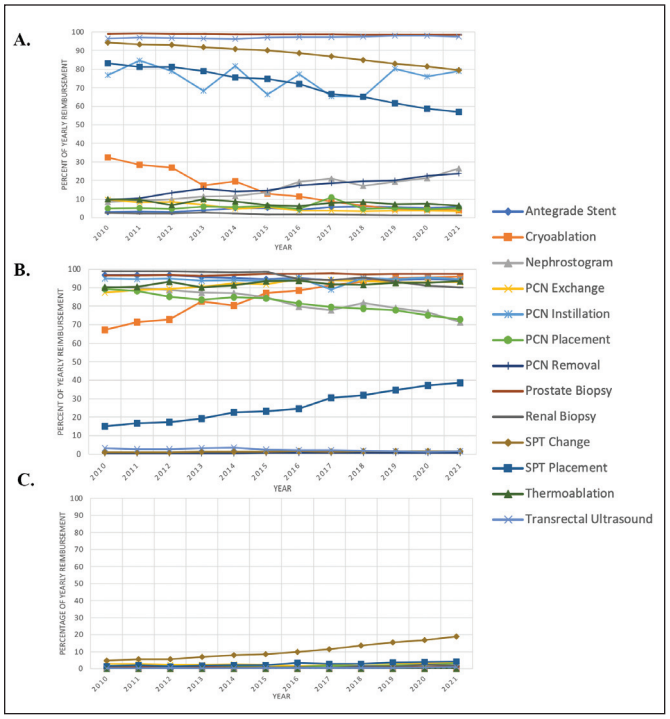
Introduction: Urology has seen management of many urologic conditions shift with the advent of non-invasive procedures that rely on multidisciplinary radiologic modalities across multiple specialties. This study seeks to analyze the distribution of urologists, radiologists, and APPs in performing uro-radiology procedures and the change over time.

Methods: The Centers for Medicare & Medicaid Services Physician/Procedure Summary data from 2010–2021 were used to examine uro-radiology current procedural terminology codes billed by urologists, radiologists, and APPs. Percent of total reimbursement and higher volume procedure count (after excluding providers with <10 procedures by per year) by each specialty was calculated and analyzed for changes in distribution from 2010–2021.

Results: There were significant changes in all procedures when examining procedure reimbursement distribution from 2010–2021 (p<0.001). From 2010–2021, urology saw decreases in reimbursement proportion as large as 28.7% for kidney cryoablation, with increases as large as 14.2% for nephrostomy tube removals. Radiology saw largest decreases in reimbursement proportion, with a 18.9% decrease for nephrostograms from 2010–2021, and the largest increase was 23.6% during that period for suprapubic tube placements. APPs saw the largest increase in suprapubic tube changes, which rose 14.2% from 2010–2021. Urologists saw their largest decrease in procedure count proportion in suprapubic tube placement (32.1%), and largest increase with renal cyst aspiration (51.0%) (p<0.001). Radiologists saw the largest decrease in procedure



Abstract 9. Figure 1. Percentage of total reimbursement among all included providers by specialty: (A) urology; (B) radiology; (C) APPs by procedure type and year.

count proportion with renal cyst aspiration (51.0%), and largest increase with suprapubic tube placements (28.9%) (p<0.001).
Conclusions: Uro-radiology procedures have seen shifts in the distribution of which specialty performs each procedure. Most large changes in reimbursement and procedure proportion were shifted between urology and radiology, with APPs seeing smaller changes.

Abstract 10

Trends of emergency department urethral stricture management following 2017 AUA guidelines

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Introduction: The 2017 American Urological Association (AUA) guideline on the management of urethral strictures recommends urethral dilation or suprapubic tube (SPT) placement for urgent management of acute urinary retention (AUR) secondary to urethral stricture; however, when definitive treatment is planned, SPT placement is favored to allow for stricture maturation. This study characterizes trends in emergency department (ED) management of urethral stricture patients presenting with AUR after the release of these guidelines.
Methods: Using the Nationwide Emergency Department Sample (NEDS) 2018–2019, we identified urethral stricture patients presenting to the ED with AUR and treated with SPT placement or urethral dilation. As NEDS represents a 20% sample of U.S. hospitals, all analyses were projected to national levels using NEDS-specific weights. We compared rates of SPT placement and dilation across patient and hospital demographics. Patient frailty was calculated using the Charlson comorbidity index. We used the Rao-Scott Chi-squared test and t-test for bivariate analysis and multivariate logistic regression to estimate the association of different demographics with SPT placement or dilation.

Abstract 10. Table 1. Multivariate logistic regression evaluating the association of SPT placement (vs. urethral dilation) with patient and hospital demographics

Demographics	Odds ratio (95% CI)	p
Age (per 10-year increment)	1.00 (0.99, 1.00)	0.14
Year		
2018	1	
2019	0.96 (0.77, 1.20)	0.72
Insurance		
Public	1	
Private	1.17 (0.91, 1.49)	0.21
Other	0.72 (0.51, 1.00)	0.05
Income quartile		
0–25th percentile	1.64 (1.21, 2.25)	<0.01*
26th–50th percentile (median)	1.46 (1.08, 1.99)	0.01*
51st–75th percentile	1.87 (1.39, 2.53)	<0.01*
76th–100th percentile	1	
Hospital region		
Northeast	1	
Midwest	1.34 (0.98, 1.84)	0.07
South	1.47 (1.09, 2.01)	0.01*
West	2.30 (1.65, 3.23)	<0.01*
Trauma center status		
Level I	1	
Other (Level II, Level III, or Non-trauma center)	0.97 (0.74, 1.27)	0.82
Teaching (%)		
Metro non-teaching	1	
Metro teaching	1.22 (0.95, 1.59)	0.13
Non-metro hospital	0.96 (0.66, 1.39)	0.84
Frailty: Charlson comorbidity index (per increasing score)	0.66 (0.58, 0.75)	<0.01*

Results: We identified 3017 weighted ED visits for AUR in stricture patients. Most patients received a urethral dilation (81.2%) compared to SPT placement (18.8%). Rates of SPT placement remained constant from 2018 (18.9%) to 2019 (18.8%). Patients who received dilation were older than those treated with an SPT (65.2 vs. 59.5 years, p<0.001). On multivariate logistic regression, frail patients had lower odds of SPT placement (OR 0.66, 95% CI 0.58–0.75, p<0.01) and were more likely to receive a dilation (Table 1). Patients from lower income quartiles and South or West hospital regions were more likely to receive a SPT. There was no difference between insurance types or teaching vs non-teaching hospitals.
Conclusions: In the two years since the AUA guideline was published, there were significant differences between patients receiving SPTs and those receiving dilations. As these treatments can impact subsequent management, such as time to definitive urethroplasty, it is important to delineate these differences and assess the need for an educational campaign for the ED and urologic community.

Abstract 11

Quantifying wasted recyclables in the operating room: Resect, reuse, recycle

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Introduction: According to the World Health Organization (WHO), approximately 85% of waste generated by healthcare is non-hazardous waste. Operating rooms (OR) are major contributors to overall healthcare waste. A large portion of this waste is packaging that is recyclable. Use of recycling in ORs is infrequently accomplished. The aim of this study is to quantify the amount of recyclables produced from transurethral resection of the prostate (TURP) procedures at two regional high-volume hospitals and to initiate a sustainable OR recycling program.
Methods: We collected wasted recyclable, non-hazardous materials from individual TURP procedures. Recyclable material was defined as paper or plastic packaging of medical equipment**.** This packaging was analyzed by academic environmental chemists to delineate their component recyclable materials.
Results: Wasted recyclables recovered from five different TURP procedures weighed 614 g, 540 g, 885 g, 1054 g, and 780 g (avg 774.6 g, SD 206). The average number of TURPs performed per year at these two hospitals from January 2016 to March 2022 was 334. This equates to 258.7 kg of wasted recyclable materials for TURPs per year. This translates to 584.66 kg of CO_2-equivalent greenhouse gas emissions.
Conclusions: Quantifying the amount of wasted recyclables by common urologic procedures can give insights into the total waste produced by urologists each year. Our first step was to address the lack of recycling within ORs. We have begun implementing more accessible recycling programs in the ORs over the past year. Continued projects of recycling and repurposing hospital plastics are ongoing within other departments at our institution.

Abstract 11. Table 1. Total number of TURPs per year

Year	# of TURPS
2016	396
2017	254
2018	284
2019	339
2020	312
2021	392
2022 (through March)	107
Total	2088

Abstract 12

Reducing out-of-pocket expenses for Peyronie's disease therapy with a novel penile traction device

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Introduction: Penile traction therapy (PTT) has gained popularity as a non-surgical approach to penile lengthening and curvature correction in those with Peyronie's disease (PD). PD is an acquired fibrotic plaque that develops within the tunica albuginea and causes penile curvature, which can have significant physical and mental health consequences. Due to the sensitive nature of this disease presentation and the large number of unidentified or misdiagnosed people, current prevalence estimations in the U.S. are around 11%. PD therapies aim to correct penile curvature while also addressing erectile dysfunction and pain. Common PD therapies include oral medications, intralesional penile injections, surgery, and stretching techniques. When deciding which therapies to pursue, disease severity, costs, compliance, and patient access to facilities and trained providers must be considered. Of these therapies, PTT with a penile traction device (PTD), although uncovered by insurance, has proven to be one of the most cost-effective PD treatments. While an effective treatment in some men, PTDs cost hundreds of dollars out-of-pocket. Our project aims to address these concerns by creating an affordable and comfortable PTD.

Methods: Our PTD offers precise, dial-adjustable tensioning and penile holding systems with contoured penile holding plates lined with silicone cushions for improved grip and comfort. Our PTD is 3D-printed using polylactic acid (PLA) and medical grade silicone. To assess our efforts in improving comfort, we measured holding capacity under tension at increasing amounts of penile clamping. We compared our silicone-lined clamp to an all-plastic clamp: this test served as a surrogate for comfort. By improving its grip on the penis, patients can secure their penis with minimal clamping force, thereby improving comfort.

Results: Our literature search revealed that the average cost for PTDs recommended by urologists for patients with PD was approximately $883. Our PTD currently costs $6.38 to manufacture and assemble. We found a statistically significant (p=0.000276) increase in the tension holding capacity of the silicone-lined clamp compared to that of the all-plastic clamp. This demonstrates that our silicone-lined clamp may exert less clamping force on the penis, thereby providing patients with the same stretching and a more comfortable grip.

Conclusions: Future directions include exploring urologists' perception of PTT for PD and their PTD recommendation patterns, refining our current PTD model, and clinically testing our device compared to those currently available.

Abstract 13

The Rezum system: A four-year, single-office, retrospective study of clinical outcomes and decisional regret in a diverse, multiethnic population

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Introduction: The Rezum system (Rezum) is an attractive, minimally invasive surgical therapy for the treatment of lower urinary tract symptoms (LUTS) secondary to benign prostatic hyperplasia (BPH). We evaluated four-year clinical and decisional regret outcomes of Rezum in a real-world, diverse patient population.

Methods: A single-office, retrospective study was conducted on patients treated with Rezum between 2017 and 2019. Patients were included if they had a recorded baseline International Prostate Symptom Score (IPSS) and at least one followup within four years. Clinical outcomes, including IPSS, quality of life (QoL), maximum flow rate (Qmax), adverse events (AEs), and BPH medication usage were collected at baseline, one-, three-, six-, 12-, and/or 48-months followup. Regret was assessed at 48 months using the validated five-item Decisional Regret Scale (DRS). High regret was defined as a DRS score >50%.

Results: A total of 267 patients were included, with a mean age of 63.6±8.7 years and median prostate volume and IPSS of 43 cc (35, 60) and 18 (11, 24), respectively. The patient population had diverse representation, including the largest cohort being Asian (33.0%), followed by non-Hispanic Black (28.5%) and Hispanic (23.6%). Most patients (83.5%) elected for general anesthesia. Median number of injections per lateral prostatic lobe was 2 (1, 2) and per medial lobe was 1 (0, 1). Significant changes in IPSS and QoL were seen as early as one month (IPSS -38.9%, p<0.001; QoL -40.0%, p<0.001), as well as Qmax (66.7%, p<0.001) by three months. Improvements remained durable to 48 months (IPSS -72.2%, p<0.001; QoL -80.0%, p<0.001; Qmax 49.0%, p=0.005). Most AEs were transient and Clavien-Dindo I/II, with gross hematuria being the most common (66.3%), followed by penile burning (61.5%). BPH medication usage was 90.4% at baseline, 22.2% by 12 months, and 36.0% by 48 months. By 48 months, 19 patients (7.7%) underwent reoperation. At 48 months, 96 patients (88.1%) reported low regret and 13 patients (11.3%) reported high regret. Those who reported high regret did not experience significant changes in IPSS (-3.3%, p=0.2) and QoL (-20%, p=0.3) from baseline to 48 months.

Conclusions: In a diverse patient population and real-world setting, Rezum provides rapid and durable improvements in LUTS through four years, with low rates of reoperation and decisional regret.

Abstract 14

Sacral neuromodulation in the golden years: Treatment outcomes in patients 75 years and older

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Introduction: Despite high prevalence and increased severity and burden of overactive bladder (OAB) and fecal incontinence (FI) in the elderly, sacral neuromodulation (SNM) is often overlooked as a potential treatment option for this demographic. In this study, we report the outcomes of SNM in patients aged 75 years or older at the time of surgery.

Abstract 14. Table 1. Preoperative patient characteristics

	75-79 years (n=35)	≥80+ years (n=15)	p
Age, years, mean (SD)	77.0±1.4	81.7±1.5	<0.001#
Sex, n (%)			1.00*
Male	6 (17.1)	2 (13.3)	
Female	29 (82.9)	13 (86.7)	
SNM indication, n (%)			0.895*
OAB	22 (62.9)	11 (73.3)	
Non-obstructive urinary retention	5 (14.3)	1 (6.7)	
Fecal incontinence	5 (14.3)	3 (20.0)	
Constipation	1 (2.9)	0 (0)	
Pelvic pain	2 (5.7)	0 (0)	
Prior treatments, n (%)			
Oral medication	23 (65.7)	11 (73.3)	0.746*
Beta-3 agonist	6 (17.1)	2 (13.3)	
Anticholinergic	4 (11.4)	2 (13.3)	
Beta- 3 agonist and anticholinergic	13 (37.1)	7 (46.7)	
Btx-A (%)	6 (18.7)	3 (25.0)	0.687*
Pelvic physiotherapy	3 (8.6)	1 (6.7)	0.82*

*Fisher's exact test. #Wilcoxon rank-sum.

Methods: We conducted a retrospective cohort study of patients who underwent SNM implantation between 2013 and 2021, performed by a single high-volume urologist at a tertiary center. Success, complication, and adjunct therapy rates were analyzed by Fisher's or Wilcox rank-sum test, as appropriate. We compared outcomes between patients aged 75–79 years and octogenarians.
Results: Out of 632 patients, 50 were ≥75 years. Patients had a mean age of 78.4±2.6 years and were predominantly female (42/50, 84%). The indications for SNM were 66% OAB, 16% FI, 16% non-obstructive urinary retention, and 4% pelvic pain (Table 1). Within the first year, 94% (47/50) of patients reported satisfaction and improvement in symptoms, while 76% continued to experience improvement beyond one year (Table 2). SNM insertion led to reduced oral medication use from 68% to 24% (p<0.0001). The complication rate was 16% and mostly included device pain (Table 3). No significant difference was observed in treatment success, complication, or adjunct therapy rate between age groups.
Conclusions: SNM is a safe and effective option in well-selected patients over the age of 75 years. Treatment success rate is comparable to younger cohorts. Advanced age should not preclude third-line therapy option in this population.

Abstract 14. Table 2. Sacral neuromodulation outcomes

	75–79 years (n=35)	≥80+ years (n=15)	p
PNE, n (%)	35 (100)	15 (100)	
Staged SNM insertion, n (%)	3 (8.6)	1 (6.7)	1.00
Treatment success <1 year, n (%)	33 (94.3)	14 (93.3)	1.00
Treatment success >1 year, n (%)	27 (77.1)	11 (73.3)	1.00
Adjunct treatment, n (%)	12 (34.3)	7 (46.7)	0.528
Oral medication	8 (22.8)	4 (26.7)	
Btx-A	2 (5.7)	2 (13.3)	
Desmopressin	1 (2.9)	1 (6.7)	
Acupuncture	1 (2.9)	0 (0)	

All Fisher's exact test.

Abstract 14. Table 3. Sacral neuromodulation complications

	75–79 years (n=35)	≥80 years (n=15)	p
Complication, n (%)	4 (11.4)	1 (6.7)	0.705
Pain (battery or lead)	2 (5.7)	1 (6.7)	1.00
Implant site infection	0 (0)	0 (0)	1.00
Migration	0 (0)	0 (0)	1.00
Revision	2 (5.7)	0 (0)	1.00
Removal, n (%)	2 (5.7)	1 (6.7)	1.00
Battery change, n (%)	1 (2.9)	0 (0)	1.00

Abstract 15

Treating catheter-dependent urinary retention with the Rezum system: Three-year outcomes in a multimorbid, multiethnic population

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Introduction: The Rezum system is a minimally invasive treatment for benign prostatic hyperplasia (BPH) that uses water vapor to ablate prostatic tissue. We evaluated the long-term efficacy of Rezum treatment for catheter-dependent urinary retention secondary to BPH.
Methods: A single-office, retrospective study was conducted on a diverse, multimorbid population of men treated with Rezum between 2017 and 2019. Inclusion criteria were catheter-dependent urinary retention prior to treatment and at least one postoperative followup. The primary objective was to assess association of catheter dependence on treatment efficacy. The secondary objective was to assess adverse events (AEs), BPH medication usage, postvoid residual (PVR), and regret at three-, six-, 12-, and/or 36-month followup. Regret was assessed using the validated five-item Decisional Regret Scale (DRS).
Results: A total of 27 patients met inclusion criteria, with the largest cohort being Asian (29.6%), followed by non-Hispanic Black (26.0%), Hispanic (22.2%), and non-Hispanic White (22.2%). Most patients had hypertension (55.6%), diabetes (37.0%), and/or hyperlipidemia (29.6%). Patients had an indwelling catheter for a median of 2.0 months (1.1, 5.3) prior to treatment. Mean age was 71.2±8.6 years and median baseline prostate volume and PVR was 73.0 cc (48.0, 103.0) and 195.0 ml (70.1, 327.9), respectively. Patients received a median of three injections (2, 4) per lateral prostatic lobe and one injection (1, 2) per medial prostatic lobe, and were given a trial of void (TOV) at a median of eight days (7, 13) postoperatively. The most common AEs were urinary retention (51.9%), followed by UTI (25.9%) and dysuria (25.9%). All cases of UTI and most cases of dysuria (6/7 cases) occurred in patients who failed their initial TOV. All patients who failed their initial TOV passed their subsequent TOV at a median of 18 days (7, 28). At 36 months, PVR significantly reduced by -100.0% (-100.0, -36.7; p=0.047) and 40.4% of patients remained off BPH medications. By 36 months, four patients (14.8%) underwent reoperation and 24 (88.9%) remained catheter independent. Of the 11 patients with a completed DRS at 36 months, one (9.1%) regretted their choice, 10 (90.9%) felt they made the right decision, and seven (63.6%) stated they would opt for the same choice again.
Conclusions: At long-term followup, Rezum effectively treated catheter-dependent urinary retention with minimal decisional regret. In patients with urinary retention, physicians should consider delaying TOV until two weeks postoperative to maximize likelihood of successful TOV and minimize risk of AEs.

Abstract 16

Predictors of failing to achieve a minimal clinically important difference in lower urinary tract symptoms following Rezum therapy in a multiethnic community

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Introduction: The Rezum system is a minimally invasive surgical therapy used to treat lower urinary tract symptoms (LUTS) secondary to benign prostatic hyperplasia (BPH). We aimed to identify predictors of failing to achieve a minimal clinically important difference (MCID) in LUTS following Rezum.
Methods: A single-office, retrospective study was conducted on patients treated with Rezum between 2017 and 2019. MCID was defined as a ≥25% improvement in International Prostate Symptom Score (IPSS). Inclusion criteria were moderate (IPSS 8–19) or severe (IPSS ≥20) LUTS, and an IPSS score at three months. Patients were categorized into two cohorts by baseline LUTS severity and whether they experienced a MCID at three months postoperatively. Predictors were identified through multivariate logistic regression analysis.
Results: The study included 174 patients, with the largest cohorts being Asian (37.4%), non-Hispanic Black (28.7%), and Hispanic (19.0%); 133 (76.4%) patients experienced a MCID at three months and 41 (23.6%) did not. Patients who

experienced a MCID at three months had a higher median baseline IPSS (20 [16–26] vs. 15 [10–21], p<0.001) and were more likely to have severe LUTS at baseline (53.0% vs. 35.0%, p=0.046) compared to those who did not experience a MCID at three months. On multivariate analysis, a low baseline IPSS was the only independent predictor of not experiencing a MCID at three months (OR 0.92, 95% CI 0.86, 0.98). For patients with baseline moderate LUTS, those who did not experience a MCID at three months had a lower median baseline total IPSS (13.0 [9.0, 14.0] vs. 15.0 [12.0, 18.0], p=0.008) compared to those who experienced a MCID at three months. For patients with baseline severe LUTS, those who did not experience a MCID at three months received fewer injections per prostatic lateral lobe (1.0 [1.0, 2.0] vs. 2.0 [1.0, 3.0], p=0.016) compared to those who experienced a MCID at three months. Of the patients who did not experience a MCID at three months, 50.0% of patients with baseline moderate LUTS and 55.6% of patients with baseline severe LUTS went on to achieve a MCID at 12 months.

Conclusions: Less than a quarter of the patients did not achieve a MCID at three months following Rezum. A low baseline IPSS was the only independent predictor of not experiencing a MCID. Therefore, patients with severe — rather than moderate — LUTS may be better Rezum candidates when assessing for early clinically significant symptom relief. To optimize achieving MCID, patients with severe LUTS may need to be treated with additional injections.

Abstract 17

BPH-related procedures occurring in medical therapy patients compared to traditional surgery and MIST patients: A large-scale, real-world analysis

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Introduction: Effective medical therapy for BPH can be hindered by side effects and lack of patient adherence. Surgical intervention can provide effective relief with a single treatment, but some patients may encounter postoperative complications. Here, large-scale real-world data is used to compare BPH-related procedures occurring with disease progression on daily medication vs. in patients who received a surgical treatment for BPH.

Methods: A representative sample of U.S. Medicare and commercial claims provided patient-level data on BPH patients who received treatment with only medical therapy (α-blockers, 5-ARIs, anti-cholinergics, β3-agonists, PDE5-inhibitors), or outpatient surgery (MIST: UroLift PUL, Rezum WVTT; invasive surgery: TURP, PVP, Aquablation) from 2015–2021. CPT codes were used to identify BPH-related procedures occurring either after initiation of medical therapy or postoperatively following surgical treatment. ICD diagnosis codes were used to identify possible underlying causes for procedures in medical therapy patients. Cumulative incidence curves were created to calculate rates of BPH-related procedures through 12 months post-treatment.

Results: The medical therapy cohort consisted of 203 504 patients, with a mean treatment duration of 716 days. Tamsulosin (n=75 698) and tadalafil (n=55 129) were the most used medications; 5.5% of medical therapy patients experienced a BPH-related procedure after initiation of medication, with a mean time of 121 days to onset for any event. The most frequent BPH-related procedures in medical therapy patients were cystoscopy (n=9920), catheterization (n=1792), and bladder irrigation (n=975). Cystoscopies in medical therapy patients were associated with diagnoses of urinary retention and LUTS. The surgical cohort was comprised of traditional surgery (TURP, n=24 035; PVP, n=11 911; Aquablation, n=84) and MIST (PUL, n=8649; Rezum, n=1944) patients. Rates of postoperative BPH-related procedures were highest after Rezum (28%), lowest after PUL (17%), and comparable among traditional surgeries (PVP 22%, TURP 21%, Aquablaton 20%). For the surgery cohort, the top postoperative procedures were catheterizations, cystoscopies, and bladder irrigations.

Conclusions: As BPH disease progresses, approximately 6% of medical therapy patients undergo procedures within one year of initiating medication use. Postoperative procedure rates were lowest following PUL and similar between PVP and TURP.

Funding: NeoTract/Teleflex

Abstract 18

Industry relationships with urologists: Characterizing the high-payment urologists

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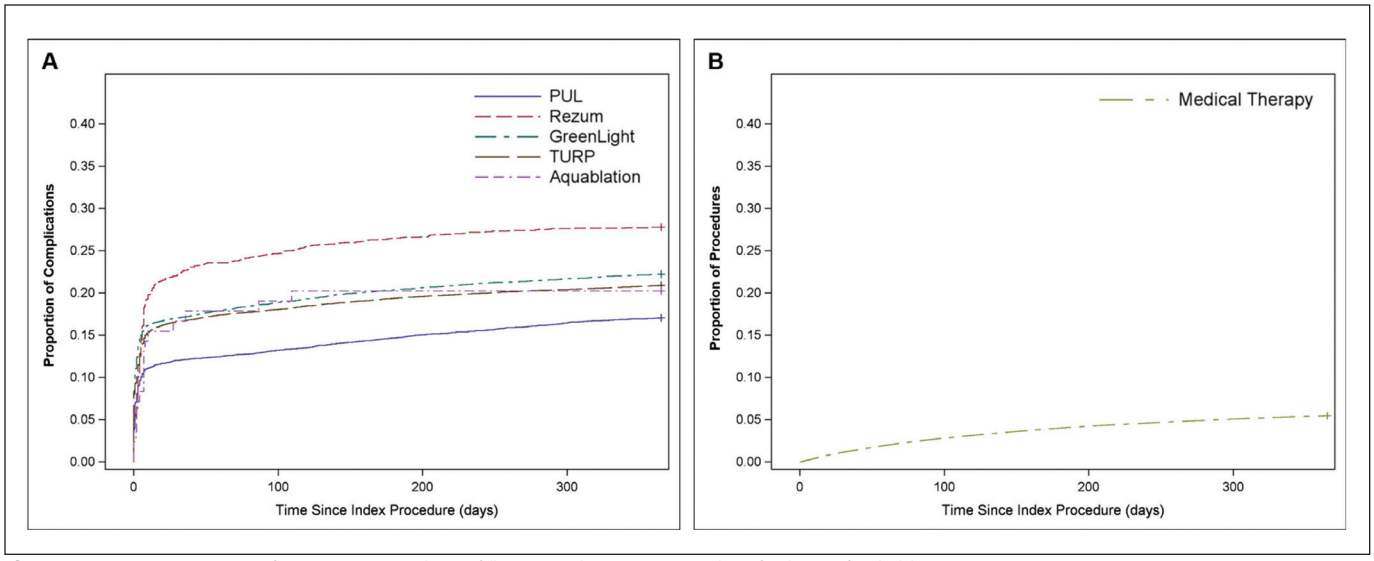
Introduction: Previous work has shown that relationships between urologists and industry are common. The median industry payment to urologists with industry relationships is modest; however, not much is known about the subset



Abstract 17. Figure 1. One-year rate of (A) postoperative complications following surgical treatment; (B) procedures after the start of medical therapy.

of urologists that receive high payment amounts from industry. Here, we characterize these payments and describe the characteristics of these high-payment urologists.
Methods: The Open Payments database was used to identify all U.S.-based urologists who received >$50 000 USD in general payments in 2021. General payments are separate from research payments. A web-based search was conducted to extract demographics, including gender and subspecialty, educational background, academic metrics (including h-index), and professional involvements (including hospital leadership positions and academic appointments).
Results: We identified 92 urologists that received over $50 000 USD in general payments. These high-payment urologists received a median payment of $82 408 USD (IQR $59 670 USD, $155 329 USD) and a total payment of $18.1 million USD. High-payment urologists represent 1.1% of all U.S. urologists that received a payment in 2021 (n=8729) but received 58.2% of all industry payments made in 2021 ($31.1 million USD). Most high-payment urologists were men (91%) and specialized in urologic oncology (25%). The median h-index was 13. There was an equal distribution of high-payment urologists in academic and community practices. Of all high-payment urologists, 13% were guideline authors, 23% were editorial board members, 42% occupied leadership positions within their institution, and 58% held an academic appointment.
Conclusions: A small number of urologists receive most of the payments from industry. High-payment urologists were predominantly male and specialized in urologic oncology. These individuals hold positions of influence within urology based on their academic and leadership involvements. Additional research is needed to determine the impact of these conflicts of interest on urologic practice.

Abstract 19

Use of a microdebrieder for epithelial excision during vaginectomy in patients undergoing metoidioplasty: Initial impressions

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Introduction: Currently, the most common practice for de-epithelializing the vagina during metoidioplasty is sharp resection of the distal vaginal epithelium and cautery ablation of the proximal/apical vaginal epithelium, which is more difficult to reach with sharp excision. Complete removal of the vaginal epithelium during vaginectomy is a necessary component of metoidioplasty. Remnant epithelium increases the risk of developing a fistula, abscess, or remnant vaginal cavity postoperatively. Currently, it is also unknown how common remnant epithelium is after the use of cautery ablation of the apical vaginal epithelium. We hypothesize that using the microdebrider device to ablate vaginal epithelium in the apical areas commonly cauterized during vaginectomy would offer similar results to sharp excision. A secondary outcome was the assessment of any residual vaginal epithelium in areas treated with electrocautery alone.
Methods: Six sequential patients undergoing metoidioplasty at our institution underwent standard sharp excision of distal vaginal epithelium during vaginectomy, with the proximal vagina de-epithelialized using a combination of electrocautery in some areas and a Straightshot M4 microdebrider in others. Biopsies were taken from the base of both the sharp and shaved sections to assess for any residual epithelium. The last three patients also had a base biopsy taken of the cauterized area.
Results: Median age was 34 years (IQR 25.8–41.5). Median BMI was 28.7 (IQR 25.5–31.5). No patients had prior vaginal surgeries, and all had a prior hysterectomy. The biopsies from the bases of both the sharply dissected and shaved sections all revealed no residual epithelial cells. Two of three (67%) cauterized specimens had residual epithelial cells in the base biopsy.
Conclusions: Vaginectomy is a time-consuming aspect of metoidioplasty. Use of the microdebrider device offers similar results to sharp dissection in completely removing vaginal epithelial cells. The use of cautery alone may not provide complete removal of vaginal epithelium. Further research into how the use of the microdebrider during vaginectomy may decrease surgical time, offer more complete resection of epithelium in the apex of the vagina, and decrease surgical bleeding is indicated.

Abstract 20

Neurologic diagnoses are prevalent in subspecialty chronic pelvic pain referrals

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Introduction: Chronic pelvic pain (CPP) is defined as pain perceived to originate from pelvic structures typically lasting greater than six months. This condition affects 5.7–26.6% of individuals in the U.S., and is frequently associated with visceral, neurologic, musculoskeletal, and psychological symptoms. We previously demonstrated a high prevalence of small fiber neuropathy (SFN) in patients with complex CPP. We screened patients within our urology/urogynecology specialty referral pain clinics for neurologic symptoms and, if present, conducted a combined evaluation with a neurologic pain specialist in a multidisciplinary clinic approach.
Methods: Patients in our urology/urogynecology specialty referral pain clinic were selected for systematic neurologic evaluation if the clinical picture suggested structural or functional nervous system disorder: pain radiating from the spine, pelvic symptoms referable to the lower spine/sacrum, balance or gait altera-

Abstract 20. Table 1. Neurologic evaluation outcomes

Confirmed neurologic diagnoses in patients with completed evaluation	Number of patients, n=60 (%)
Small fiber neuropathy	21 (35%)
Large fiber neuropathy	19 (32%)
Severe spinal stenosis	12 (20%)
Herniated disc	9 (15%)
Radiculopathy	5 (8%)
Vitamin B12 deficiency	4 (7%)
Ankylosing spondylitis	3 (5%)
Chiari malformation	2 (3%)
Stroke	1 (2%)
Cauda equina syndrome	1 (2%)
Multiple sclerosis	1 (2%)
Testing results in CPP patients screening + for neurologic disease	**n (%)**
Physical exam + for upper motor neuron findings	40/150 (27%)
Physical exam + for lower motor neuron findin gs	13/150 (9%)
Physical exam + for proximal muscle weakness	2/150 (1%)
Physical exam + for hyperesthesia	2/150 (1%)
Physical exam + for referred pain to the groin	1/150 (0.7%)
Non-focal exam	92/150 (61%)
Abnormal EMG	20/47 (43%)
Skin biopsy + for small fiber neuropathy	22/33 (67%)
Significant MRI findings	20/81 (25%)
Relevant laboratory findings (e.g., Lyme, B12, ANA)	27/68 (40%)
Ongoing workup	58/150 (39%)

tion, pain within a dermatome referable to a specific nerve/root, or abnormal reflexes. Additional criteria included upper motor neuron (UMN) findings on urodynamic testing (neurogenic detrusor overactivity, detrusor-external sphincter dyssynergia), hypotonic bladder, history suggesting neurologic contributors (e.g., spine surgery), chronic overlapping pain syndromes, or multiple autonomic symptoms. Subsequent workup was tailored to the neurologic evaluation and presenting complaints, including video urodynamic testing, skin biopsy, electromyography, autonomic testing, magnetic resonance imaging (MRI), laboratory testing. Rheumatologic and orthopedic referrals were added as indicated.
Results: A total of150 patients were identified in our retrospective review; 100% underwent formal neurological examination. Forty had UMN findings (hyperreflexia, Hoffman's sign) on exam, 13 lower motor neuron findings (diminished reflexes, muscle atrophy), and 92 had non-focal examinations. Forty-seven patients were evaluated via electromyography, 33 by skin biopsy, 81 with MRI, and 68 were sent for laboratory studies. Fifty-eight (39%) patients are still undergoing workup. Of 92 patients with a completed evaluation, 60 (65%) were confirmed to have a neurologic diagnosis, while 32 (35%) had an unremarkable workup. The most common neurologic diagnoses included SFN, large fiber neuropathy, and severe spinal stenosis (Table 1).
Conclusions: Neurologic disease is prevalent among subspecialty pelvic pain patients who screen positive for neurologic contributors. Most of these diagnoses were de novo and many had experienced delay for years. Screening for neurologic conditions should be strongly considered in urologic and gynecologic patients with CPP to ensure appropriate diagnosis and management.

Abstract 21

Primary metoidioplasty: An initial experience

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Introduction: Metoidioplasty is a form of transmasculine genital gender-affirmation surgery. It results in male appearance of genitalia, ability to void upright, and preservation of sexual arousal. Our objective is to describe the initial functional and sexual outcomes of a single-stage metoidioplasty with our surgical refinements.
Methods: A single-surgeon, single-institution, retrospective review was performed of all transgender male patients who underwent metoidioplasty from April 2021 to March 2023. Metoidioplasty techniques include vaginectomy with complete excision of vaginal epithelium and obliteration of cavity, neophallus creation from clitoris and labia minora flaps, urethral lengthening with buccal mucosal graft and labia minora flaps (Belgrade technique), and scrotoplasty. Postoperative complications were documented. Postoperative retrograde urethrogram (RUG), uroflow, and postvoid residual (PVR) were used to evaluate functional outcomes. Questionnaires were administered to assess patient satisfaction.
Results: A total of 12 consecutive transgender male patients underwent single-stage metoidioplasty between April 2021 and March 2023. Median age was 43 years (IQR 33, 50). The mean followup time was five months (1–25 months). Median surgery time was 419 minutes (IQR 391, 431). No intraoperative complications were observed. All patients were discharged on postoperative day 1. One high-grade complication (Clavien-Dindo ≥ grade 3) was documented in a patient who developed buccal granuloma requiring excision. There were two emergency room visits for catheter drainage problem and one re-admission for fever of unknown origin. No patients demonstrated fistula or vaginal remnant on postoperative RUG. No patient developed urethral stricture or urethrocutaneous fistula throughout the study period. All patients were able to void in an upright position with a mean maximum urinary flow of 18 cc/s and PVR of 19 cc. All patients were satisfied with voiding status, with a mean IPSS of 2.5, GRA of +3, and QoL of 1. All patients reported adequate erectile function and arousal of the neophallus; however, none has attempted penetrative intercourse.
Conclusions: We demonstrate promising functional and sexual outcomes following single-stage metoidioplasty, with minimal high-grade complications and high patient satisfaction on patient-reported outcome measures observed.

Abstract 22

Comparison of complications profile of percutaneous nephrostomy tube vs. ureteral stenting in patients with malignant ureteral obstruction

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Introduction: Percutaneous nephrostomy tubes are often recommended for patients with malignant ureteral obstruction, under the assumption that they possess greater efficacy in relieving malignant obstruction compared to ureteral stents; however, the comparative outcomes of each procedure have not been well-established. Thus, we sought to compare complications after nephrostomy tube placement compared to stent placement in malignant obstruction.
Methods: In the Premier database, we identified cancer patients requiring a ureteral stent (US) or nephrostomy tube (PCN) procedure between January 2001 and March 2019, excluding patients with a concurrent nephrolithiasis diagnosis. Information collected included demographics and comorbidities in the year prior to the procedure. The outcome of interest was major/minor morbidity using Clavien-Dindo classification. Patient characteristics and post-procedure outcomes were compared using descriptive statistics. Propensity score-matching allowed balancing differences in age, comorbidities, cancer type, hospital teaching status, and sepsis/AKI at index, and logistic regression model was fit to the matched cohort to predict major/minor morbidity for each procedure. The logistic regression included the propensity score as a covariate to account for residual imbalance after matching.
Results: We identified 39 501 patients diagnosed with various cancers requiring a stent or nephrostomy tube placement. In propensity score-matched groups of 3752 patients receiving each treatment, nephrostomy tubes increased the odds of major morbidity after 3–12 months by 1.4x (95% CI 1.2, 1.7) compared to stents, while there was no significant difference in odds of minor morbidity (OR 1.02, 95% CI 0.9, 1.2) (Table 1).
Conclusions: Our data suggests that stents may have decreased morbidity post-procedure compared to nephrostomy tubes; however, propensity score-matching was not able to successfully match for sepsis and AKI at the index encounter. We attempted to address this by adjusting for the propensity score in the analysis, but there could still be residual confounding. Also, given that no criteria exist to definitively grade degree of extrinsic compression, a direct comparison of the two methods is inherently challenging. A well-designed, randomized trial comparing the direct outcomes of stents vs. percutaneous nephrostomy tubes is necessary to further understand the true impact and efficacy of these procedures.

Abstract 23

Comparison of cost effectiveness of percutaneous nephrostomy tube vs. ureteral stenting in patients with malignant ureteral obstruction

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Introduction: Percutaneous nephrostomy tubes are often recommended for patients with malignant ureteral obstruction, assuming they possess greater efficacy in relieving malignant obstruction compared to ureteral stents; however, the comparative cost effectiveness of each modality has been poorly established. We compared expenses in nephrostomy tube placement and stent placement in malignant obstruction.
Methods: Using the Premier database, we identified cancer patients requiring a ureteral stent (US) or nephrostomy tube (PCN) procedure between January 2001and March 2019, excluding patients with a concurrent nephrolithiasis diagnosis. Information collected included demographics and comorbidities in the year prior to the procedure. Outcomes of interest were hospital costs and patient charges. Patient characteristics and post-procedure outcomes were compared using descriptive statistics. Propensity score matching on age, Elixhauser comorbidities, type of cancer, hospital teaching status, and presence of sepsis/AKI at index was performed.
Results: We identified 39 501 patients with malignant ureteral obstruction.

Abstract 22. Table 1. Demographic characteristics of the sample before and after matching

	Before matching			After matching		
Group	Nephrostomy tube	Stent	SMD	Nephrostomy tube	Stent	SMD
Observations	3752	35 749		3752	3752	
Age*						
Mean (SD)	67.6 (13.4)	68.9 (12.7)	0.1	67.6 (13.4)	67.1 (13.8)	0.037
Gender						
Male	60% (2248)	56% (20 184)	0.08	60% (2248)	54% (2027)	0.12
Female	40% (1504)	44% (15 557)	-0.08	40% (1504)	46% (1724)	-0.12
Unknown	0% (0)	0.022% (8)	NA	0% (0)	0.027% (1)	NA
Race						
White	70% (2617)	79% (28 074)	-0.21	70% (2617)	73% (2733)	-0.07
Black	11% (407)	6.9% (2483)	0.14	11% (407)	9.4% (351)	0.05
Hispanic	11% (401)	3.8% (1344)	0.28	11% (401)	5.5% (206)	0.2
Other/Unknown	8.7% (327)	11% (3848)	-0.08	8.7% (327)	12% (462)	-0.11
Provider region						
Midwest	18% (690)	22% (7979)	-0.1	18% (690)	24% (912)	-0.15
Northeast	11% (412)	13% (4566)	-0.06	11% (412)	11% (396)	0
South	53% (2000)	46% (16 446)	0.14	53% (2000)	45% (1671)	0.16
West	17% (650)	19% (6758)	-0.05	17% (650)	21% (773)	-0.1
Hospital teaching status*						
Yes	54% (2020)	45% (16 147)	0.17	54% (2020)	53% (1990)	0.02
Urban/rural hospital						
Rural	10% (388)	11% (3983)	-0.03	10% (388)	12% (442)	-0.06
Urban	90% (3364)	89% (31 766)	0.03	90% (3364)	88% (3310)	0.06
Number of beds						
000–099	2% (74)	4% (1419)	-0.12	2% (74)	3.4% (129)	-0.09
100–199	12% (450)	14% (5072)	-0.06	12% (450)	14% (523)	-0.06
200–299	12% (434)	17% (5931)	-0.14	12% (434)	14% (544)	-0.06
300–399	15% (581)	16% (5874)	-0.03	15% (581)	14% (509)	0.03
400–499	14% (510)	15% (5374)	-0.03	14% (510)	15% (547)	-0.03
500+	45% (1703)	34% (12 079)	0.23	45% (1703)	40% (1500)	0.1

*Variable included in the propensity score model.

Propensity score-matched groups of 3752 patients receiving each treatment were compared. Inflation-adjusted hospital costs (USD) for PCN placement was a median of $7832.0 (IQR 2581, 18 976) vs. $3725 (IQR 2595, 5855; p<0.001) for US. After one year, median hospital cost was $26 905.00 (IQR 12 240.40, 54 725.80) for PCNs, and $18 112.80 (IQR 7382.20, 39 087.40) for US (p<0.001). Patients were charged a median of $34 943.70 (IQR 13 246.70, 79 709.30) for PCNs vs. $16 391.00 (IQR 10 764.40, 27 253.90) (p<0.001) for US. Over the next year, patients were charged a median of $117 086.10 (IQR 53 589.70, 227 250.80) after PCNs vs. $70 749.10 (IQR 32 027.20, 147 015.60) after US (p<0.001) (Figure 1). The median number of encounters in the year following the procedure was five (IQR 2, 10) for PCNs and five (IQR 2, 9) for US (p=0.11).
Conclusions: Stents seem more cost-effective for hospitals and patients in the

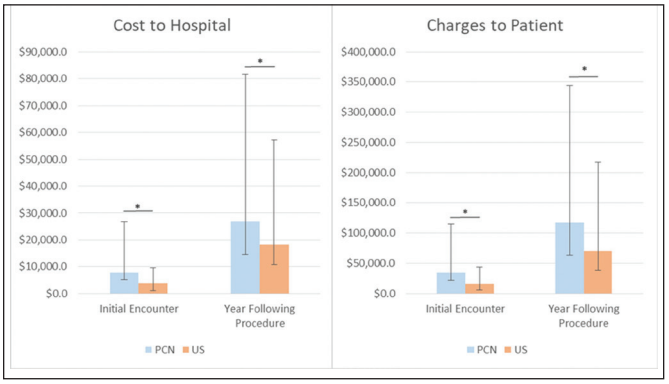
Abstract 22. Table 1 (cont'd). Demographic characteristics of the sample before and after matching

	Before matching			After matching		
Group	Nephrostomy tube	Stent	SMD	Nephrostomy tube	Stent	SMD
Cancer oral*						
Yes	0.11% (4)	0.059% (21)	0.01	0.11% (4)	0.13% (5)	-0.01
Cancer digestive *						
Yes	12% (437)	10% (3691)	0.04	12% (437)	12% (456)	-0.02
Cancer respiratory*						
Yes	1.3% (47)	1.1% (390)	0.01	1.3% (47)	1.1% (41)	0.01
Cancer bone*						
Yes	2.9% (110)	3.1% (1121)	-0.01	2.9% (110)	3.1% (117)	-0.01
Cancer -genitourinary*						
Yes	78% (2931)	80% (28 460)	-0.04	78% (2931)	79% (2958)	-0.02
Cancer - eye*						
Yes	0.027% (1)	0.028% (10)	0	0.027% (1)	0.027% (1)	0
Cancer - thyroid*						
Yes	0.053% (2)	0.09% (32)	-0.02	0.053% (2)	0.053% (2)	0
Cancer - other*						
Yes	38% (1430)	20% (7280)	0.37	38% (1430)	33% (1227)	0.11
Elixhauser score						
Mean (SD)	26.9 (16.0)	18.4 (13.1)	0.58	26.9 (16.0)	26.4 (16.1)	0.03
AKI*						
Yes	43% (1599)	2.4% (846)	0.81	43% (1599)	23% (846)	0.41
Sepsis*						
Yes	13% (480)	0.087% (31)	0.38	13% (480)	0.83% (31)	0.36

*Variable included in the propensity score model.

initial encounter and the year following; however, propensity score-matching was unable to balance presence of sepsis/AKI at index between groups, so residual confounding in the cost difference is likely. Also, expense is secondary to patient outcomes when choosing a procedure to relieve obstruction. A well-designed, randomized trial comparing the outcomes of each procedure depending on degree of ureteral compression is necessary to further establish the financial impact of these procedures.

Abstract 24



Abstract 23. Figure 1. Expenses of each procedure to hospitals/patients.

Comparison of efficacy of obstruction relief between percutaneous nephrostomy tube vs. ureteral stenting in patients with malignant ureteral obstruction

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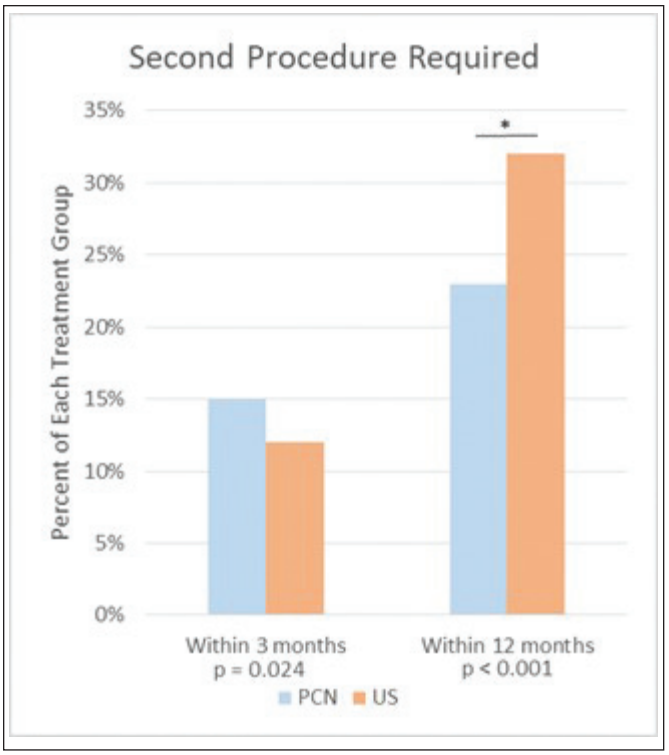
Introduction: Percutaneous nephrostomy tubes are often recommended for treating malignant ureteral obstruction, assuming they possess greater efficacy in relieving malignant obstruction compared to ureteral stents; however, the comparative outcomes of each procedure have not been well-established. We compared the need for a repeat procedure for obstruction relief after nephrostomy tube placement compared to stenting in malignant obstruction.

Methods: Using the Premier database, we identified cancer patients requiring a ureteral stent (US) or nephrostomy tube (PCN) procedure between January 2001 and March 2019, excluding patients with a concurrent nephrolithiasis diagnosis. Information collected included demographics and comorbidities in the year prior to procedure. The outcome of interest was a second procedure within three months/12 months. Patient characteristics and post-procedure outcomes were compared using descriptive statistics. Propensity score-matching was performed to balance differences in age, comorbidities, cancer type, hospital teaching status, and sepsis/AKI at index.

Results: We identified 39 501 cancer patients requiring a stent (n=35 749) or nephrostomy tube (n=3752). Propensity score-matched groups of 3752 patients receiving each treatment required a second procedure within three months for 15% of the PCN group vs. 12% of the US group (p=0.024). By 12 months, this becomes 23% of the PCN group vs. 32% of the US group (p<0.001) (Figure 1). Repeat stenting occurred in 3.8% of the PCN group and 11% of the US group by three months (p<0.001), and 8% of the PCN group and 31% of the US group (p<0.001) by 12 months. Repeat nephrostomy occurred in 12% of the PCN group vs. 0.69% of the US group by three months (p<0.001), and 18% of the PCN group compared to 1.4% of the US group (p<0.001) by 12 months.

Conclusions: Our data suggest that stents require a repeat procedure more often after a year. The repeat procedures often match the initial procedure. This could reflect residual confounding despite our use of propensity score matching (samples remained poorly balanced on sepsis/AKI). A direct comparison is challenging here given that the guidelines for attempting the opposite procedure after a stent or nephrostomy tube has failed are not well-established.



Abstract 24. Figure 1. Need for a second procedure in each treatment group (*p<0.01).