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Plenary Session 14: Resident Prize Essay Podium Session

FRI-1100

An Evaluation of the Rate and Predictive Factors for Apical Fusion after Aquablation

C. McPartland, K. Zhao, J. Pryor, Z. Leopold, S. King, E. Deller and S. Sterious

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ABSTRACT: Introduction and Objective: Aquablation is a robotic therapy that treats lower urinary tract symptoms (LUTS) secondary to benign prostatic hypertrophy. Anecdotally, our practice has noted postoperative occurrence of apical fusion, defined as bands of unablated tissue spanning across the prostatic fossa, which have been associated with LUTS and often required re-treatment via transurethral resection of these bands. Literature examining this phenomenon is sparse. Our study aims to evaluate predictive factors for the development of apical fusion following Aquablation. **Methods:** We retrospectively examined all patients undergoing Aquablation between 2019 to 2025 by a single surgeon. Postoperative follow-up was conducted at 6 weeks and 3 months for LUTS evaluation, uroflow, and post void residual. Patients reporting recurrent LUTS underwent office cystoscopy, and findings on cystoscopy were used to identify patients who developed apical fusion. Peri-operative variables between both groups were compared using multivariate analysis; statistical significance was defined as $p < 0.05$. **Results:** A total of 189 patients were analyzed. This cohort demonstrated a 10.6% apical fusion rate (20/189) following Aquablation. Patients with post-operative apical fusion had higher median AUA-SS scores (11 [IQR 7–25] vs. 7 [IQR 4–12], $p = 0.013$) and worse quality of life scores (3 [IQR 2–4] vs. 2 [IQR 1–3], $p = 0.031$). Uroflow and post-void residual volumes were comparable between cohorts. Patients with apical fusion were more likely to have undergone prior bladder outlet obstruction surgery (25.0% vs. 8.9%, $p = 0.04$). No other preoperative differences were observed. **Conclusions:** Symptomatic apical fusion is an underrecognized complication following Aquablation that may limit post-operative improvement in LUTS. Further investigation is warranted to elucidate the underlying mechanisms, identify modifiable risk factors, and develop strategies for management.

Table 1a: Preoperative Factors	**Total Cohort** ***n*** **= 189**	**No Apical Fusion** ***n*** **= 169**	**Apical Fusion** ***n*** **= 20**	***p*-Value**
Age (years)	69.00 (64.00–73.00)	69.00 (64.00–73.00)	69.00 (64.75–74.25)	0.3544
Body Mass Index (kg/m^2)	27.40 (25.00–30.00)	27.40 (24.80–29.99)	28.00 (26.38–31.52)	0.3944
Uroflow (mL/s)	7.30 (5.00–9.00)	7.40 (5.00–9.00)	6.90 (5.15–9.40)	0.9291
Post-void residual (mL)	102.50 (54.25–145.75)	106.50 (56.75–152.50)	55.50 (46.00–113.50)	0.1285
Prostate size (grams)	80.00 (54.00–110.00)	80.00 (54.00–107.00)	90.00 (67.00–113.00)	0.324
PSA (ng/mL)	3.16 (1.80–5.33)	3.18 (1.80–5.07)	3.10 (2.05–6.50)	0.9629
AUASS	23.00 (19.00–27.00)	23.00 (19.00–27.00)	22.00 (19.00–25.00)	0.6252
QOL	5.00 (4.00–5.00)	5.00 (4.00–5.00)	5.00 (4.00–6.00)	0.626
SHIM	15.00 (7.00–21.00)	15.00 (8.00–20.75)	11.00 (4.50–20.50)	0.644
Prior outlet surgery	20/188 (10.6%)	15/168 (8.9%)	5/20 (25.0%)	0.044
Catheter dependent	27/189 (14.3%)	24/169 (14.2%)	3/20 (15.0%)	1
Table 1b: Perioperative Factors				
First pass (min)	4.02 (3.21–4.88)	3.98 (3.18–4.85)	4.58 (3.47–5.15)	0.176
Second pass (min)	3.75 (3.13–4.75)	3.73 (3.11–4.72)	4.42 (3.30–5.07)	0.208
Third pass (min)	3.78 (2.49–4.40)	3.78 (2.49–4.40)	N/A	N/A

Total time (min)	7.60 (6.10–9.70)	7.58 (6.10–9.65)	8.48 (6.24–10.22)	0.549
Median lobe	67 (36.2%)	62 (37.3%)	5 (26.3%)	0.486
Length of stay (days)	1.00 (1.00–2.00)	1.00 (1.00–2.00)	1.00 (1.00–1.00)	0.312
Day 1 trial of void	86 (46.2%)	79 (47.3%)	7 (36.8%)	0.533
Discharged with foley	60 (32.3%)	52 (31.1%)	8 (42.1%)	0.478
Table 1c: Postoperative Factors				
AUASS	8.00 (4.00–13.00)	7.00 (4.00–12.00)	11.00 (7.00–25.00)	0.013
QOL	2.00 (1.00–3.00)	2.00 (1.00–3.00)	3.00 (2.00–4.00)	0.031
SHIM	15.00 (5.00–21.00)	15.00 (5.00–20.50)	15.00 (3.00–24.00)	0.831
Uroflow (mL/s)	14.00 (8.77–17.00)	14.00 (9.20–17.00)	10.00 (6.00–15.90)	0.244
Post Void Residual (mL)	22.50 (5.25–75.50)	22.00 (5.75–63.75)	40.50 (2.50–115.25)	0.573

**values are reported in median (interquartile range) or total (percentage).

FRI-1110

Rethinking Robotic Simple Prostatectomy as a Size-Independent Surgery: Postoperative and Patient Reported Outcomes Following Robotic Surgery for Borderline to Massively Enlarged Prostates

S. Luketich and J. Barnard

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ABSTRACT: Introduction and Objective: Surgical management options for benign prostatic hyperplasia (BPH) depend on prostate size. According to AUA guidelines, robotic simple prostatectomy (RSP) is recommended for treatment of large and very large prostate glands. However, previous studies lack complete characterization across size groupings. We hypothesized that patient-reported outcome measures (PROMs) following RSP are independent of prostate size. Our objective was to stratify patients based on prostate size and assess PROMs and complications. **Methods:** All RSPs over a four-year period at our institution were included. Groups based on prior imaging included 0–100 g, 100–150 g, 150–200 g, 200–300 g, and 300+ g prostates. Perioperative and postoperative PROMs were compared between groups. PROMs (AUA-SS, Quality of Life (QoL)) and post-void residuals were collected at three months and annually thereafter. **Results:** A total of 51 patients underwent RSP, and prostate size ranged from 27 to 588 g. There was no difference between cohort patient characteristics. Length of stay was similar between groups, but the 300+ g cohort did have a higher transfusion rate. Thirty-day ED visits, readmissions, and call/message count was similar among groups and did not correlate with increasing prostate size. There was significant improvement in AUA-SS and QoL across all groups compared to pre-operative responses which was sustained at one year. The improvement in AUA-SS and QoL was similar among cohorts and showed improvements of 20–29 points in AUA-SS and 3–4 points in the QoL (Table 1). **Conclusions:** RSP may be offered to all patients with an enlarged prostate regardless of size as outcomes were similar independent of prostate size to over 500 g. This suggests that RSP may be considered a size-independent treatment option for prostates, and that perhaps this can be emphasized in future BPH guidelines.

Table 1. Patient characteristics and outcomes across prostate sizing groups

Prostate Size	0 to 100 g	100 to 150 g	150 to 200 g	200 to 300 g	300+ g
Patient characteristics					
n	5	10	18	11	7
Age (years)	71.2 ± 5.2	69.5 ± 5.5	73.6 ± 5.2	70.8 ± 9.2	73.9 ± 6.9
BMI	29.4 ± 6.2	29.6 ± 4.2	30.1 ± 6.4	30.5 ± 4.9	30.0 ± 5.0
Hgb A1c >6.5	25.0%	33.3%	30.0%	20.0%	20.0%
Current/former smoker	60.0%	40.0%	55.6%	72.7%	28.6%
ASA	2.6 ± 0.5	2.6 ± 0.7	2.8 ± 0.4	2.9 ± 0.3	3.0 ± 0.6
PSA >4.0	25.0%	77.8%	54.5%	70.0%	33.3%
Pre-operative assessment					
Urinary retention	20.0%	60.0%	77.8%	54.5%	85.7%
Prior outlet surgery	40.0%	20.0%	16.7%	27.3%	14.3%
Prior alpha-blocker	100.0%	70.0%	88.9%	90.9%	85.7%
Prior 5 alpha-reductase inhibitor	40.0%	50.0%	55.6%	81.8%	57.1%
Perioperative outcomes					
Length of stay	0.6 ± 0.9	1.8 ± 2.0	1.7 ± 1.1	2.0 ± 1.3	3.4 ± 2.8
CBI overnight	60.0%	90.0%	100.0%	100.0%	100.0%
Transfusion	0.0%	0.0%	0.0%	0.0%	28.6%
Clinically significant prostate cancer	0.0%	0.0%	5.6%	0.0%	14.3%
Postoperative outcomes					
30 day clinic visit	0.0%	0.0%	5.6%	0.0%	0.0%
30 day ED visit	0.0%	22.2%	16.7%	36.4%	14.3%
30 day readmission	0.0%	22.2%	5.6%	27.3%	14.3%
Leak on cystogram	0.0%	0.0%	0.0%	10.0%	0.0%
Patient reported outcomes					
Δ AUA-SS at 3 mo	-12.5 ± 2.1	-19.7 ± 6.9	-22.0 ± 13.1	-30.6 ± 6.7	-21.5 ± 13.5
Δ AUA-SS at 1 year	-12.0 ± 0.0	-20.5 ± 7.8	-24.8 ± 9.8	-24.8 ± 19,8	-29.2 ± 6.9
Δ QoL at 3 mo	-4.5 ± 0.7	-3.3 ± 1.9	-4.3 ± 2.0	-4.4 ± 2.6	-3.7 ± 2.3
Δ QoL at 1 year	-5.0 ± 0.0	-3.0 ± 0.0	-4.8 ± 1.0	-4.5 ± 3.0	-5.8 ± 0.5

FRI-1120

Post-TURBT Intravesical Chemotherapy: Variation in Hospital and Provider Administration Rates for Low-Grade Bladder Cancer within a Large Regional Healthcare Network

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ABSTRACT: Introduction and Objective: The CoC measure BLCT1 recommends single-dose intravesical chemotherapy (IVC) after transurethral resection of bladder tumor (TURBT) for low-grade Ta bladder cancer (BCa). Despite level 1 evidence, nationwide utilization remains low. This study evaluates variability of post-TURBT IVC administration at an institutional and provider level in a large, diverse regional health network. **Methods:** With IRB approval, a retrospective analysis was performed using a prospectively maintained oncology registry to identify patients with low-grade Ta BCa diagnosed by TURBT from January 1, 2020, to December 31, 2024. Each site and urologist were required to have performed ≥4 and ≥2 TURBTs, respectively, to be included in the individual analysis. Chi-square testing compared IVC administration rates across institutions, providers, and relevant patient factors. **Results:** Among the 156 patients included in the study, 52% received IVC after TURBT. Five sites within a large regional health network and 15 urologists met inclusion criteria. IVC administration differed significantly by treating urologist (range 0–83% compliance) and hospital site (range 0–68%) ($p < 0.05$). No significant associations were observed with patient age, race, ethnicity, or sex. Institutional and individual rates are reported in Table 1. In this cohort, caregiver (provider and institution) rather than individual variation appeared to drive IVC administration variability. **Conclusions:** This study identified significant variation in post-TURBT IVC administration for low-grade

BCa across sites and physicians within a large regional health network. Pilot analysis point to greater variability due to caregiver variability rather than patient variability. These findings may help inform QI interventions to improve performance on BLCT1 measure compliance.

Site	Urologist	TURBTs	IVC	Proportion IVC Given
VA Site	1	20	13	0.65
	2	8	4	0.50
	3	11	6	0.55
	4	2	0	0
	5	12	5	0.42
VA Site Total		53	28	0.52
Urban Academic Site	1	7	1	0.14
	2	3	1	0.33
	3	2	1	0.50
Urban Academic Site Total		13	3	0.23
Suburban Site #1	6	8	2	0.25
	7	3	0	0.0
	8	4	1	0.25
	9	7	5	0.76
Suburban Site #1 Total		26	10	0.38
Rural Site	10	14	8	0.57
	11	29	22	0.76
	12	10	5	0.50
	13	6	5	0.83
Rural Site Total		60	41	0.68
Suburban Site #2	14	2	0	0
	15	2	0	0
Suburban Site #2 Total		4	0	0
Total:		156	82	0.52

FRI-1130

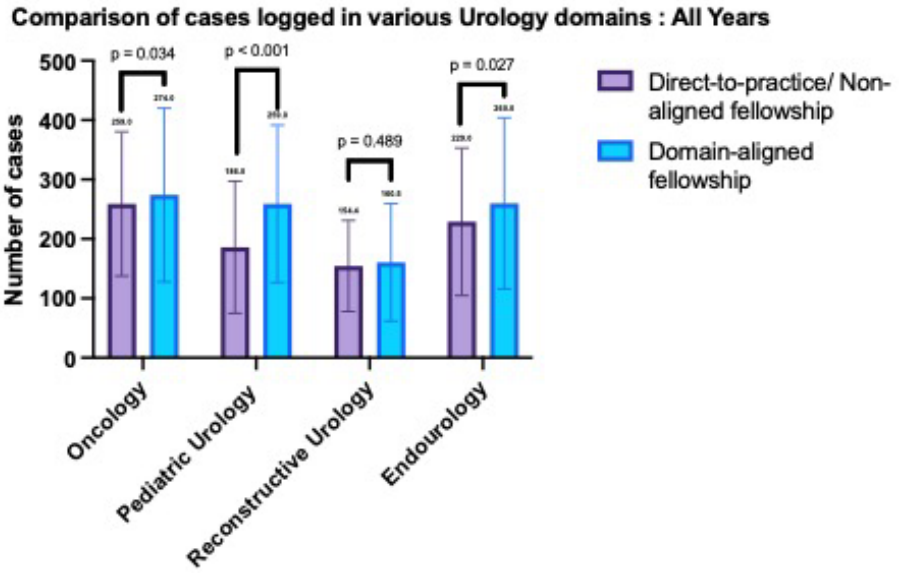
Fellowship before the Fellowship: How Residents Shape Training to Match Future Subspecialization

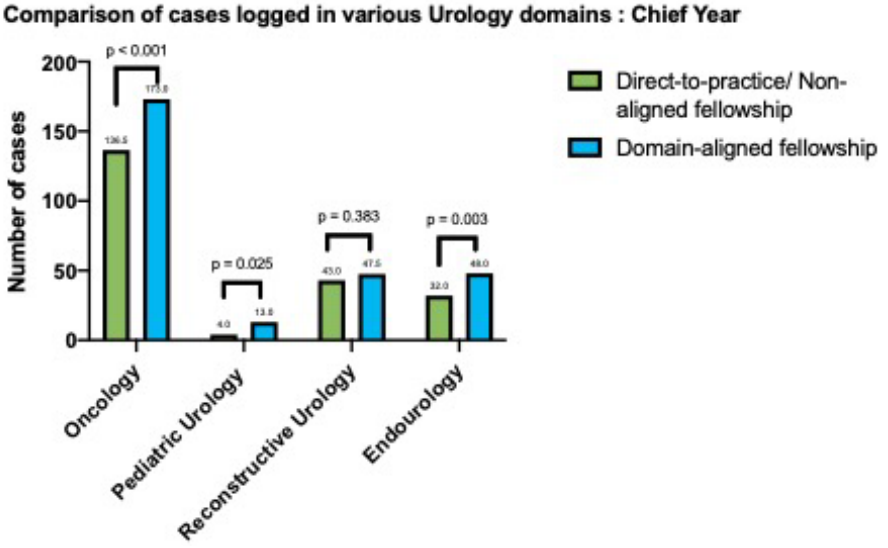
S. Manivasagam[1,2], R. Mercedes[1], G. Lemack[3], M. Clifton[4], A. Klausner[2], A. Mehta[5], H. Atiemo[6], M. Sorensen[7], R. Smith[8], J. Buckley[9], R. Thompson[10], B. Breyer[11], G. Badalato[12], E. Wallen[13] and J. Raman[1]

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USA; [8]University of Virginia, Charlottesville, VA, USA; [9]University of California San Diego, San Diego, CA, USA; [10]Mayo Clinic Department of Urology, Rochester, MN, USA; [11]University of California, San Francisco, San Francisco, CA, USA; [12]Columbia University, New York, NY, USA; [13]Medical University of South Carolina, Charleston, SC, USA

ABSTRACT: Introduction and Objective: Urology residency is designed to equip trainees with the skills necessary for independent practice. However, the educational landscape has evolved, with fellowship trained urologists constituting > 45% of the workforce. We examine whether residents perform a greater number of cases aligned with their intended fellowship and whether, after matching, they tailor their chief resident year to reinforce their subspecialty. **Methods:** We conducted a multi-institutional analysis of case logs from residents of 14 programs from 2010–2022. Cases were categorized into five domains: Endourology, Reconstruction, Oncology, Pediatrics, and General. Residents who pursued fellowship training were identified, and case volumes were compared between those who matched into a given subspecialty and those who entered directly into practice/other fellowships. **Results:** Of 340 residents, 199 (58.5%) pursued fellowship. Residents entering fellowship logged significantly more cases in their aligned domains: Oncology (Median 274 vs. 259, p = 0.034), Pediatrics (259 vs. 186, p < 0.001), and Endourology (260 vs. 229, p = 0.027). No significant difference was observed in Reconstructive Urology (160.5 vs. 154.5, p = 0.489). During chief year, residents continued to align case selection with fellowship: Oncology (173 vs. 136.5, p < 0.001), Pediatrics (13 vs. 4, p = 0.025), and Endourology (48 vs. 32, p = 0.003). Reconstructive case volume did not follow this trend (47.5 vs. 43, p = 0.383). **Conclusions:** These findings suggest that, for most specialties, sub-specialization appears to begin during residency, with residents aligning their operative experience with future fellowship plans. Chief year case selection appears to reflect strategic preparation for fellowship.





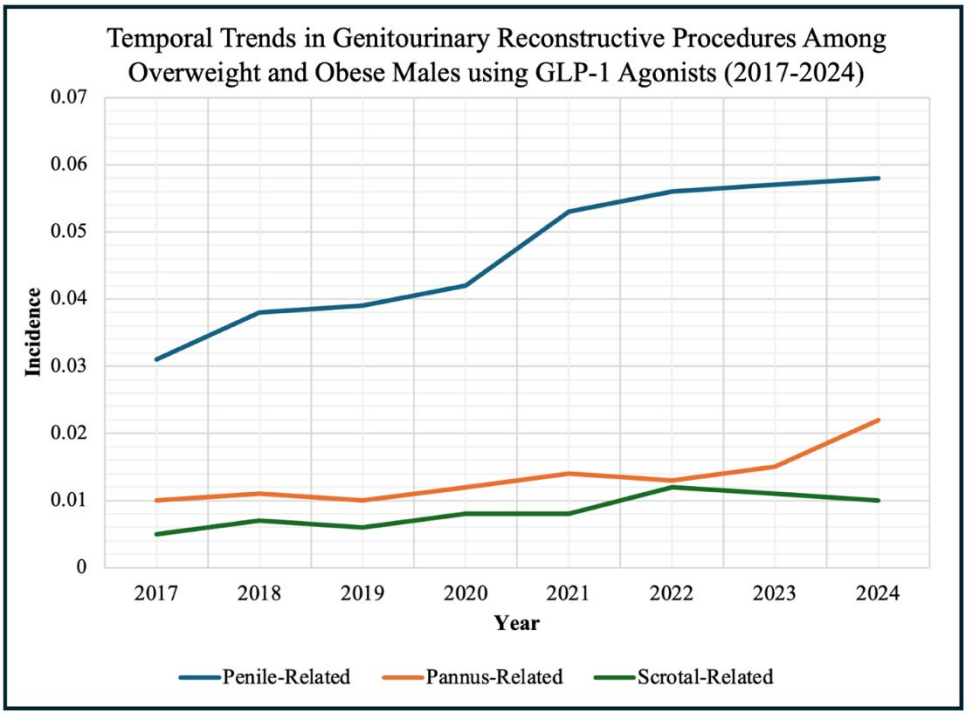
FRI-1140

Trends in Genitourinary Reconstructive Plastic Surgery among Overweight and Obese Adults Using GLP-1 Receptor Agonists

A. Schneider, J. Baran, T. Desai, S. Shah and P. Chung

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ABSTRACT: Introduction and Objective: Glucagon-like peptide-1 receptor agonists (GLP-1s) have transformed weight management. Literature underscores increased genitourinary (GU) concerns following GLP-1-associated weight loss, including soft tissue laxity and skin excess. We hypothesized a positive correlation between GLP-1 usage and incidence of GU reconstructive procedures among overweight and obese males. **Methods:** Using TriNetX, a retrospective study of males ≥18 years old with BMI ≥25 kg/m2 was conducted between 2017–2024. Cohort 1 included GLP-1 users (n = 487,409; liraglutide, semaglutide, dulaglutide, or tirzepatide). Cohort 2 included non-GLP-1 users (n = 12,031,724). CPT-defined penile (54,360, 54,161, 54,300), pannus (15,830, 15,847, 15,839, 15,877), and scrotal procedures (55,175, 55,180, 55,150) were analyzed using Kaplan-Meier and Hazard Ratio (HR) analyses with propensity score matching (PSM) of age and comorbidities. Secondary analysis stratified GLP-1 users with ICD-10 codes for buried penis (n = 1684; N48.83/Q55.64) versus pannus-related disorders (n = 2485; L98.7/M79.3). **Results:** GLP-1 use increased from 0.182% to 1.718% (+834%) between 2017–2024. An increase in GU procedures was observed: penile +87% (0.031–0.058%), pannus +120% (0.010–0.022%), and scrotal +100% (0.005–0.010%). Following PSM, GLP-1 users demonstrated a higher incidence of panniculectomy (HR 2.09, 95% CI 1.75–2.50; p = 0.0003) and scrotal reconstruction (HR 1.69, 95% CI 1.36–2.10; p = 0.0476), while differences in penile reconstruction were not statistically significant (HR 1.78, 95% CI 1.64–1.97; p = 0.2367). Among GLP-1 users, those with buried penis had a higher risk of penile surgery compared to those with pannus-related disorders (HR 9.34, 95% CI 5.59–15.61; p = 0.0037). **Conclusions:** The incidence of GU reconstructive surgery among overweight males using GLP-1s has risen, with GLP-1 therapy associated with increased rates of pannus and scrotal procedures. As GLP-1s continue to expand, urologists should anticipate patients with post-weight-loss genital or pannicular redundancy requiring surgical correction.



FRI-1150

Identifying Barriers and Opportunities for Collaboration between Rural Urology and Advanced Urology Care Centers: A Survey and Interviews of Urologists and Advanced Practice Providers

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ABSTRACT: Introduction and Objective: Rural urologists and urology advanced practice providers (APPs) deliver essential frontline care to a disproportionate share of the U.S. population, and rely on advanced urology care centers for complex, non-urgent conditions. Inefficiencies in referral pathways and care transitions may contribute to delays, fragmented communication, and increased burden for clinicians and patients. This study aimed to characterize barriers, best practices, and opportunities for improving collaboration between rural urology practices and advanced care centers. **Methods:** We conducted a mixed-methods study using a targeted survey of American Urological Association members and semi-structured interviews. The survey assessed referral patterns, communication methods, and perceived barriers among rural and metropolitan urologists and APPs. Quantitative data were analyzed descriptively and comparatively. Qualitative interviews with rural clinicians, advanced care urologists, and APPs were analyzed using inductive content analysis to identify themes related to referral coordination, infrastructure, patient experience, and workforce factors. **Results:** A total of 149 clinicians completed the survey (56% rural, 44% metropolitan). Two-thirds of clinicians sending or receiving referrals reported experiencing barriers, most commonly related to patient access and time to appointment (Figure). Communication challenges and inconsistent information transfer were frequent. Qualitative analysis revealed that personal clinician-to-clinician relationships often compensated for fragmented referral infrastructure, while EHR incompatibility, centralized intake systems, and prolonged wait times generated substantial invisible labor. Rural patients faced compounding logistical and social barriers, and timely access emerged as a key patient-centered quality metric. **Conclusions:** Effective rural–tertiary urology collaboration depends on both robust systems and relational infrastructure. Improving referral transparency, communication pathways, EHR interoperability, and workforce capacity may reduce delays, clinician burden, and inequities in rural urologic care.

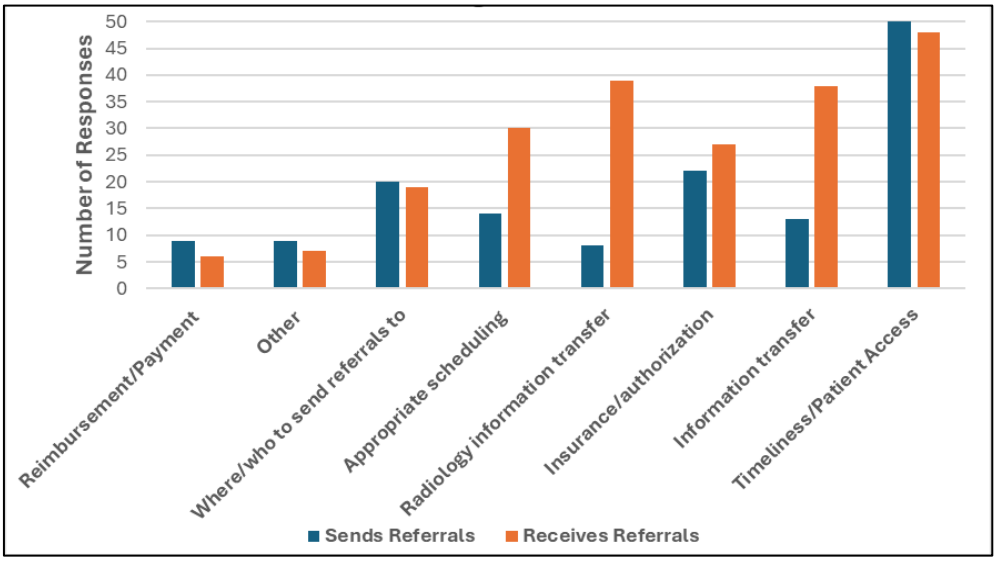


Figure: Frequently experienced barriers to transitioning care to/from advanced care centers stratified by those sending (n = 63) and receiving (n = 67) referrals. Respondents can select multiple answers.

Mini-Podium Session 1: Oncology—Kidney and Bladder Cancer

WED-CS1-1000

A Comparison of Muscle-Invasive Bladder Cancer Treatment Trends between Academic and Non-Academic Centers over the Past Decade: A TriNetX Analysis

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ABSTRACT: Introduction and Objective: Radical cystectomy and chemoradiation are two standard treatments methods for muscle-invasive bladder cancer (MIBC). Our study aimed to compare MIBC treatment trends at academic and non-academic centers. **Methods:** We queried TriNetX, a global healthcare data repository, to identify patients diagnosed with MIBC between 2015–2024. Patients were stratified by center type (academic vs. non-academic) and treatment modality (cystectomy vs. chemoradiation). The cystectomy groups underwent cystectomy after MIBC diagnosis and did not undergo radiation. In contrast, the chemoradiation groups underwent treatment after MIBC diagnosis. These patients did not undergo cystectomy. Descriptive statistics and statistical analyses were performed. **Results:** The TriNetX queries produced 9309 patients diagnosed with MIBC and treated with cystectomy or chemoradiation between 2015–2024. MIBC treatment trends by center type are depicted in Fig. 1. Cystectomy rates decreased from 53.76% to 46.2% and 74.15% to 58.8%, at non-academic and academic institutions, respectively, over the 10-year period. Binomial logistic regression demonstrated that treatment patterns differed significantly by center type and year. Academic centers had significantly lower odds of chemoradiation compared to non-academic centers (OR = 0.48, $p < 0.001$), with a 2.6% increase in odds per year. Over time, the odds of chemoradiation increased by approximately 4% per year (OR = 1.04, $p < 0.001$) at non-academic institutions, indicating a gradual shift toward bladder-preserving chemoradiation relative to cystectomy. The interaction between center type and year was not statistically significant ($p = 0.30$), suggesting similar trends in treatment modality across practice settings. **Conclusions:** Our study suggests a gradual shift towards bladder-preserving management of MIBC across institutions.

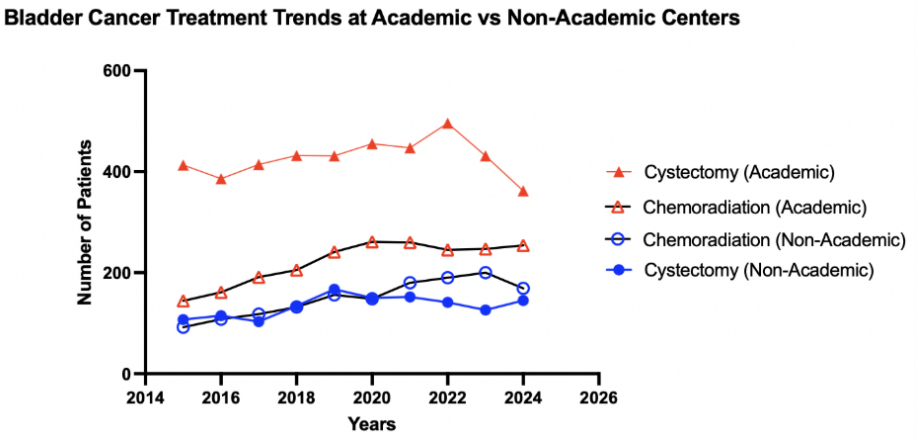


Fig. 1

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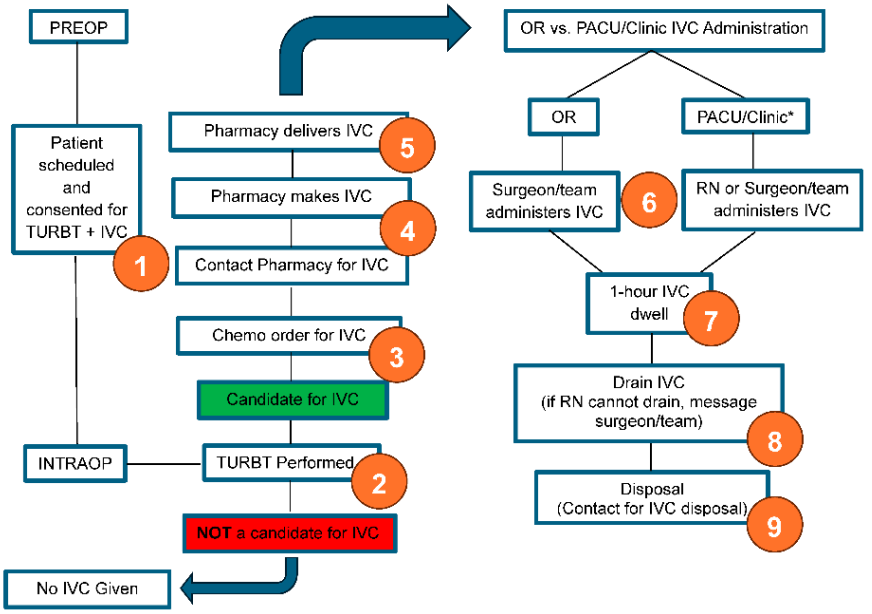
Mapping the Workflow for Immediate Post-TURBT Intravesical Chemotherapy: Identification of Nine Critical Steps

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ABSTRACT: Introduction and Objective: Despite strong guideline recommendations for single-dose intravesical chemotherapy (IVC) after TURBT, nationwide administration remains low. Post-TURBT IVC delivery is an operationally complex process with multiple care settings and stakeholders. Process mapping can clarify the current state and identify barriers to reliable delivery. This study developed a standardized process map to support implementation planning for the 2026 American College of Surgeons (ACS) Commission on Cancer (CoC) Timely Administration post TURBT (TApT) Quality Improvement (QI) Project. **Methods:** Semi-structured interviews were conducted with physician stakeholders across multiple hospitals within a regional health network, as well as pharmacists and perioperative nursing personnel in the operating room (OR) and post-anesthesia care unit (PACU). Interviews were structured using a cognitive task analysis framework to elicit tasks, decision requirements, and sources of variation. Findings were synthesized into an iterative consensus process map and subsequently adopted into the 2026 CoC TApT QI Project. **Results:** The process map identified nine critical steps for post-TURBT IVC delivery: (1) patient scheduling and consent for TURBT + IVC; (2) intraoperative evaluation for IVC candidacy; (3) ordering of IVC; (4) IVC agent preparation; (5) medication delivery to administration site; (6) IVC administration with branching by care location and administering staff (OR vs. PACU; physician vs. nursing); (7) intravesical dwell period; (8) medication drainage; and (9) chemotherapy disposal via appropriate handling pathways. **Conclusions:** Cognitive task analysis–informed process mapping delineated discrete, standardizable steps and key decision points in post-TURBT IVC delivery, yielding an implementation-ready framework for nation-wide QI in the 2026 CoC TApT Project.

Process Steps
1. Patient Scheduling and Consent
2. Evaluation for IVC candidacy
3. Ordering of IVC
4. Chemotherapy preparation
5. Chemotherapy delivery
6. IVC Administration
7. Management of patient during IVC dwell
8. Drainage of IVC
9. Disposal of chemotherapy



WED-CS1-1010

Can the Microscopic Hematuria Threshold Be Raised to Limit Evaluations without Missing Significant Numbers of Urothelial Cancers? Real-World Detection Rates from a Single Institution

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ABSTRACT: Introduction and Objective: Microscopic hematuria (MH) is defined at ≥3 red blood cells per high-power field (RBC/HPF). We assessed whether increasing the MH threshold above the current ≥3 RBC/HPF could reduce unnecessary evaluations while maintaining urothelial cancer (UC) detection, by comparing detection across RBC ranges and against an assessed control group with 0–2 RBC/HPF. **Methods:** Single-institution chart review of 4550 patients with MH (≥3 RBC/HPF); all patients underwent cystoscopy, and upper-tract imaging (renal ultrasound and/or CT/MRI). UC detection was summarized by RBC/HPF ranges (3–7, 8–10, 11–25, ≥25), as UC count and within-range prevalence (%). A comparison was made to control group of patients (n = 1221) referred for a positive dipstick but negative urine microscopy (RBC 0–2/HPF) with no history of gross hematuria who were evaluated with cystoscopy and imaging. **Results:** Within the MH cohort, the UC incidence was 69/4550 (1.52%) and in the control group were 14/1221 (1.15%). UC detection varied across the RBC/HPF brackets (Table 1). The 3–7 group had the lowest yield while detection was higher at ≥8, including 8–10, and increased further in 11–25 and ≥25. Compared with the control group (0–2), 3–7 showed lower detection, whereas ≥8 (and higher brackets) was higher. The largest separation in UC detection was between 3–7 and ≥8, indicating that most of the difference lies at that threshold. **Conclusions:** The incidence of UC for patients without MH is equal to those with MH 3–7 RBCs in this cohort. These findings support the concept of increasing MH threshold of ≥8 RBC/HPF to reduce unnecessary evaluations and focus on higher risk patients.

Table 1: Urothelial cancer (UC) detection by RBC/HPF range.

Group/RBC Range (RBC/HPF)	*Patients n*	*UC n*	*UC prevalence (%)*
Control Group	1221	14	1.15
3–7	2403	20	0.83
8–10	960	17	1.77
11–25	767	13	1.70
>25	402	19	4.73
3–10 sub-detail			
3–5	1920	20	1.04
6–7	483	0	0.0
8–10	960	17	1.77

WED-CS1-1015

Facility-Level Variation in the Utilization and Adoption of Trimodal Therapy for Muscle-Invasive Bladder Cancer

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ABSTRACT: Introduction and Objective: Radical cystectomy (RC) is the gold standard for patients with non-metastatic muscle invasive bladder cancer (MIBC). As an alternative, guidelines support organ-preserving treatment with trimodal therapy (TMT), with recent studies supporting improved health-related quality of life despite higher costs. Although previous studies have demonstrated patient factors to influence treatment receipt and outcomes, exploration of outcomes in relation to treating hospital remains poorly defined. This study aims to characterize facility-level variation among patients who received TMT. **Methods:** We queried the National Cancer Database to identify patients with clinical T stage 2, non-metastatic MIBC for patients diagnosed between 2004–2022. We evaluated patient demographics, clinical characteristics, and facility variables with multilevel logistic regression clustered by facility. **Results:** Among 34,446 patients across 566 high-volume facilities, 26,358 (76.5%) underwent RC and 8088 (23.5%) received TMT. TMT utilization increased over time, with most cases occurring between 2016–2022. On multilevel logistic regression, increased age, comorbidity score, variant histology, and facility academic status were associated with increased odds of receiving TMT. Despite full adjustment, substantial between-facility variation persisted. Facility-level median odds ratio was 2.11, indicating that two identical patients treated at different institutions could have a two-fold difference in odds of receiving TMT. This identifies the treating facility as the second largest predictor of treatment receipt. **Conclusions:** While the adoption of TMT for MIBC has increased, substantial institutional variation remains, even among high-volume facilities. In a fully adjusted model, institution type remains a major determinant of treatment selection, underscoring the influence of systemic factors on TMT delivery.

Table 1: Patient demographics, socioeconomic factors, clinical characteristics, and facility features among patients who underwent radical cystectomy or trimodal therapy for muscle-invasive bladder cancer.

	Total N = 34,446	Radical Cystectomy N = 26,358	Trimodal Therapy N = 8088	*p*-Value
Patient Demographics				
Age at Diagnosis, years				
Mean (SD)	70.1 (10.0)	68.4 (9.6)	75.7 (9.4)	<0.001
Range	40–90	40–90	40–90	
Sex, N (%)				
Male	25,481 (74.0%)	19,427 (73.7%)	6054 (74.9%)	0.04
Female	8965 (26.0%)	6931 (26.3%)	2034 (25.1%)	
Race, N (%)				
White	31,598 (91.7%)	24,207 (91.8%)	7391 (91.4%)	0.271
Black	1987 (5.8%)	1491 (5.7%)	496 (6.1%)	
Native American	68 (0.2%)	56 (0.2%)	12 (0.1%)	
Other	793 (2.3%)	604 (2.3%)	189 (2.3%)	
Ethnicity, N (%)				
Hispanic	972 (2.8%)	788 (3.0%)	184 (2.3%)	<0.001
Non-Hispanic	33,474 (97.2%)	25,570 (97.0%)	7904 (97.7%)	
Patient Socioeconomic Factors				
Insurance Status, N (%)				
Private	9246 (26.8%)	7978 (30.3%)	1268 (15.7%)	<0.001
Medicare	22,567 (65.5%)	16,250 (61.7%)	6317 (78.1%)	
Medicaid	1447 (4.2%)	1216 (4.6%)	231 (2.9%)	
Uninsured	534 (1.6%)	471 (1.8%)	63 (0.8%)	

Other	652 (1.9%)	443 (1.7%)	209 (2.6%)	
Median Household Income, N (%)				
1st Quartile—Lowest	4965 (14.4%)	3858 (14.6%)	1107 (13.7%)	0.02
2nd Quartile	8305 (24.1%)	6413 (24.3%)	1892 (23.4%)	
3rd Quartile	9691 (28.1%)	7372 (28.0%)	2319 (28.7%)	
4th Quartile—Highest	11,485 (33.3%)	8715 (33.1%)	2770 (34.2%)	
Education Level, N (%)				
1st Quartile—Highest% without HS diploma	4405 (12.8%)	3456 (13.1%)	949 (11.7%)	<0.001
2nd Quartile	8518 (24.7%)	6513 (24.7%)	2005 (24.8%)	
3rd Quartile	12,434 (36.1%)	9567 (36.3%)	2867 (35.4%)	
4th Quartile—Lowest% without HS diploma	9089 (26.4%)	6822 (25.9%)	2267 (28.0%)	
Rurality, N (%)				
Metropolitan	28,275 (82.1%)	21,459 (81.4%)	6816 (84.3%)	<0.001
Urban	5429 (15.8%)	4299 (16.3%)	1130 (14.0%)	
Rural	742 (2.2%)	600 (2.3%)	142 (1.8%)	
Clinical Characteristics				
Year of Diagnosis, N (%)				
2004–2009	5914 (17.2%)	4683 (17.8%)	1231 (15.2%)	< 0.001
2009–2015	11,800 (34.3%)	9462 (35.9%)	2338 (28.9%)	
2016–2022	16,732 (48.6%)	12,213 (46.3%)	4519 (55.9%)	
Distance to Facility, miles				
Mean (SD)	36.3 (87.2%)	40.9 (91.4%)	21.4 (69.9%)	<0.001
Range	0–3293	0–2531	0–3293	
Charlson-Deyo Comorbidity Score, N (%)				
0	22,691 (65.9%)	17,668 (67.0%)	5023 (62.1%)	<0.001
1	7221 (21.0%)	5567 (21.1%)	1654 (20.5%)	
2	2841 (8.2%)	2015 (7.6%)	826 (10.2%)	
≥3	1693 (4.9%)	1108 (4.2%)	585 (7.2%)	
Tumor Characteristics				
Tumor Size, cm				
Mean (SD)	6.4 (4.6)	6.0 (4.7)	7.6 (4.2)	<0.001
Histologic Subtype, N (%)				
Adenoma	186 (0.5%)	157 (0.6%)	29 (0.4%)	< 0.01
Mucinous	77 (0.2%)	69 (0.3%)	8 (0.1%)	
Other	1363 (4.0%)	940 (3.6%)	423 (5.2%)	
Small Cell	84 (0.2%)	48 (0.2%)	36 (0.4%)	

Squamous	934 (2.7%)	805 (3.1%)	129 (1.6%)	
Urothelial	31,802 (92.3%)	24,339 (92.3%)	7463 (92.3%)	
Facility Characteristics				
Patient Volume				
Mean (SD)	132.3 (148.0)	144.6 (154.9)	92.1 (113.8)	<0.001
Facility Type, N (%)				
Community Center	503 (1.5%)	335 (1.3%)	168 (2.1%)	<0.001
Comprehensive Community	11,103 (32.2%)	7441 (28.2%)	3662 (45.3%)	
Academic/Research	17,234 (50.0%)	14,466 (54.9%)	2768 (34.2%)	
Integrated Network Program	5606 (16.3%)	4116 (15.6%)	1490 (18.4%)	
Facility Location, N (%)				
New England	2637 (7.7%)	1974 (7.5%)	663 (8.2%)	<0.001
Middle Atlantic	5419 (15.7%)	4086 (15.5%)	1333 (16.5%)	
South Atlantic	7203 (20.9%)	5241 (19.9%)	1962 (24.3%)	
East North Central	5977 (17.4%)	4609 (17.5%)	1368 (16.9%)	
East South Central	2106 (6.1%)	1744 (6.6%)	362 (4.5%)	
West North Central	3310 (9.6%)	2649 (10.1%)	661 (8.2%)	
West South Central	1843 (5.4%)	1589 (6.0%)	254 (3.1%)	
Mountain	1612 (4.7%)	1229 (4.7%)	383 (4.7%)	
Pacific	4339 (12.6%)	3237 (12.3%)	1102 (13.6%)	

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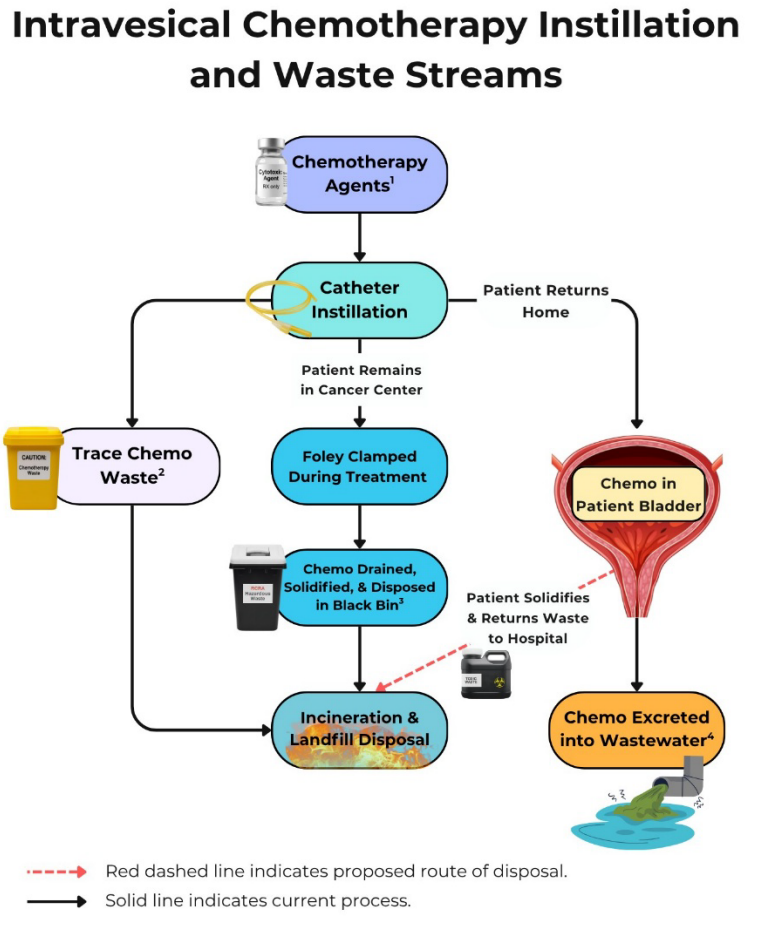
Where Should the Toxic Urine Go? A Review of Intravesical Chemotherapy Waste Disposal

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ABSTRACT: Introduction and Objective: The advent of novel intravesical chemotherapeutics is exciting but also raises safety and environmental concerns because agents are excreted unmetabolized into sewage. We conducted a quality improvement project to review institutional policy and devise best practice pathways for solid and intravesical chemotherapy waste disposal. **Methods:** We reviewed professional standards and state and federal laws governing chemotherapy waste and compared institutional disposal practices across the main operating room, outpatient surgical center, and cancer center. We then convened a working group including pharmacy, the hazardous medication committee, and urology to assess compliance and identify policy improvements. **Results:** We found that guidelines and regulations governing chemotherapy waste have limited applicability to chemotherapy waste excreted in urine. Institutional review revealed variation in waste management practices across sites, and found some patients discharged home while retaining chemotherapy in bladder. Notably, institutional hazardous medication disposal policies contained no provisions for managing intravesical chemotherapy after patient discharge. Toxic urine entering sewage is governed under the Clean Water Act, but it provides no pollutant-specific requirements for cytotoxic agents in sewage at hospitals or homes. In response, we identified two incineration-based pathways for management of toxic urine: 1) post-treatment urine collection and solidification at the cancer center before discharge, or 2) discharge with a receptacle and instructions for safe home collection and return for disposal (Fig. 1). **Conclusions:** The lack of regulatory, professional, and institutional guidance for patients discharged with intravesical chemotherapy presents an opportunity to address this

emerging chemotherapy waste management challenge. We propose pathways for solidifying and incinerating waste to minimize wastewater contamination and protect patients, providers, and the environment. In parallel, we recommend institutions review and align chemotherapy disposal policies across points of care.



WED-CS1-1025

Safety Profile of UGN-102 in the Treatment of Adult Patients with Recurrent Low-Grade Intermediate-Risk Non-Muscle Invasive Bladder Cancer

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ABSTRACT: Introduction and Objective: UGN-102 (75 mg mitomycin in reverse thermal hydrogel) is an FDA-approved intravesical treatment for adults with recurrent low-grade intermediate-risk non-muscle invasive bladder cancer (LG-IR-NMIBC). Intravesical chemotherapies can be associated with adverse reactions including allergic skin reactions, cystitis, dysuria, and laboratory abnormalities. This is a pooled, *post hoc* safety review of UGN-102 across clinical studies in patients with recurrent LG-IR-NMIBC. **Methods:** Patients

received 6 once-weekly outpatient intravesical instillations of UGN-102 in single arm late phase studies, OPTIMA II (NCT03558503), Home instillation (NCT05136898), and ENVISION (NCT05243550). In the randomized, controlled Phase 3 ATLAS trial (NCT04688931), patients received 6 once-weekly instillations of UGN-102 or transurethral resection of bladder tumor; only UGN-102 treated patients are included in this analysis. Data from patients with prior NMIBC were pooled and treatment-emergent adverse events (TEAEs) occurring within 3 months after start of treatment were summarized. **Results:** 346 UGN-102 treated patients with prior NMIBC were included in this analysis. Patients had a mean age of 68.9 years, 63.3% were male and 96.2% were White. 323 (93.4%) patients received all 6 instillations of UGN-102; 23 (6.6%) received <6 instillations. Within the first 3 months of treatment, 206 (59.5%) patients experienced a TEAE (Table). Serious adverse events occurred in 20 (5.8%) patients. Grade 3 or higher TEAEs occurred in 22 (6.4%) patients; treatment-related TEAEs occurred in 135 (39.0%) patients. The most frequent TEAEs were dysuria (96 [27.7%] patients) and pollakiuria (33 [9.5%] patients). Cystitis, hypersensitivity, and urinary tract infections were each reported in 3 patients, and dystrophic calcification, leukopenia, and thrombocytopenia were each reported once. **Conclusions:** UGN-102, a primary nonsurgical treatment for recurrent LG-IR-NMIBC, demonstrates a safety profile that can be managed in routine urologic practice.

Table

Adverse Events up to 3 Months, *n* (%)	**UGN-102 N = 346**
Any TEAEs	206 (59.5)
Any serious adverse event	20 (5.8)
Any grade 3 or higher TEAEs	22 (6.4)
Treatment-related TEAES	135 (39.0)
Procedure-related TEAEs	100 (28.9)
TEAEs leading to treatment discontinuation	16 (4.6)
Any treatment-related TEAEs leading to treatment discontinuation	8 (2.3)
TEAEs ≥10% incidence	
Dysuria	96 (27.7)
Pollakiuria	33 (9.5)

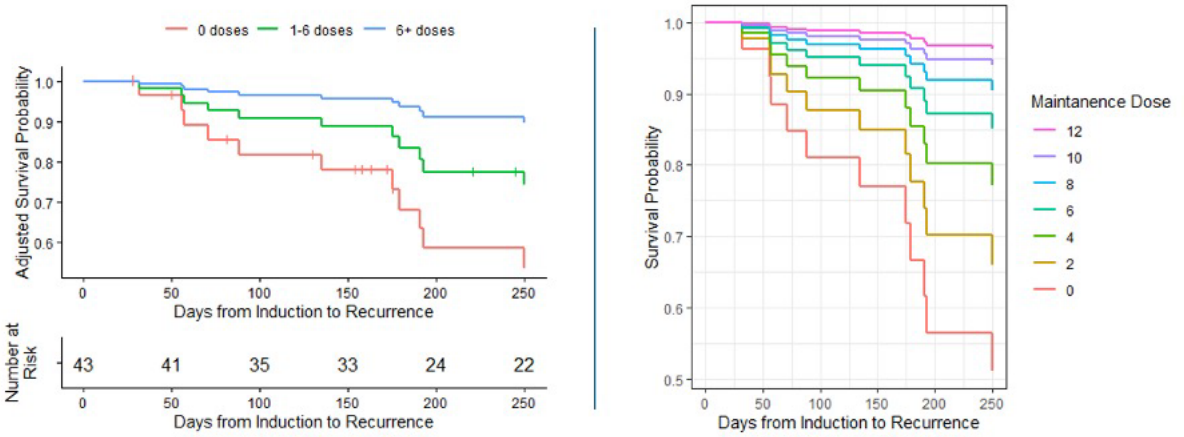
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Maintenance Matters: Dose-Dependent Improvements in Recurrence with Gemcitabine-Docetaxel

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ABSTRACT: Introduction and Objective: The global Bacillus Calmette-Guérin (BCG) shortage has driven urologists to adapt their treatment strategies for non-muscle invasive bladder cancer (NMIBC); namely intravesical gemcitabine/docetaxel (GD). Following an acute BCG shortage in March 2023, our institution transitioned to GD as the primary first-line therapy for (NMIBC). We prospectively followed BCG-naïve patients to evaluate recurrence-free survival (RFS). **Methods:** Forty-seven patients were eligible for first-line GD; four were excluded for incomplete induction (<3 cycles). The final cohort (n = 43) included pTa LG (n = 6), pTa HG (n = 14), pT1 HG (n = 16), and CIS (n = 7) pathology. GD induction involved six weekly instillations; monthly maintenance was recommended but optional. RFS was analyzed by pathology, AUA risk, and maintenance received. Predictors of recurrence were assessed using Cox proportional hazards models. **Results:** Majority did not recur (74%) during first year, and majority received maintenance (51%). Of those with recurrence, 9/11 recurred with same or lower stage. Recurrence was more common without maintenance (33% vs. 18%). Stage and AUA risk were not significant. Each GD dose incurred a 21% decrease in risk of recurrence (95% CI −0.01 −0.38; $p = 0.048$) (Fig. 1). **Conclusions:** Our prospective cohort supports the need for standardized GD maintenance of at least 6 cycles. In BCG-naïve NMIBC, patients treated with GD, overall recurrence was 23% with received maintenance with risk reduction of 21% per maintenance dose. Larger cohort studies standardizing and intensifying maintenance may be pivotal to optimizing patient outcomes on GD therapy.



WED-CS1-1035

Predictors of Early-Onset Renal Cell Carcinoma in the All of Us Research Program

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ABSTRACT: Introduction and Objective: Although the average age at kidney cancer diagnosis is 65, the frequency of early-onset disease is increasing. Evidence suggests the incidence of aggressive, early-onset renal cell carcinoma (eoRCC) has risen by 3.5% per year over the past two decades. To investigate potential drivers of this trend, we aimed to identify predictors of eoRCC among patients in the All of Us Research Program (AoURP), a sample of around 800K adults. **Methods:** Our cohort included all AoURP participants with renal cell carcinoma (RCC). We separated the cohort into two groups based on the presence or absence of early-onset disease, which we defined as RCC diagnosis prior to age 45. We collected data on race, ethnicity, sex, income, education, insurance, geographic residence, area deprivation index, body mass index (BMI), hypertension, chronic kidney disease, smoking, alcohol consumption, healthcare delays, and financial accessibility. Least absolute shrinkage and selection operator (LASSO) logistic regression with 10-fold cross-validation identified predictors of eoRCC. **Results:** A total of 2514 participants in AoURP had a diagnosis of RCC. Of these, 277 met criteria for eoRCC. On multivariate analysis, the strongest positive predictors of eoRCC were elevated BMI ($\beta = 1.18 \times 10^{-2}$), Hispanic ethnicity ($\beta = 7.16 \times 10^{-2}$), and residence in the Ohio River Valley (Michigan, Ohio, Indiana, or Kentucky) ($\beta = 5.99 \times 10^{-2}$). The strongest negative predictors were hypertension ($\beta = -8.45 \times 10^{-2}$), former smoking status ($\beta = -4.30 \times 10^{-2}$), and male sex ($\beta = -4.25 \times 10^{-2}$). **Conclusions:** This study reveals that BMI, Hispanic heritage, and residence in the Midwest may influence eoRCC risk. Interestingly, established global risk factors for RCC, including HTN, smoking, and male sex, were negative predictors. These findings warrant further investigation to determine whether modifiable risks such as BMI or geographic exposures may be responsible for increases in eoRCC.

WED-CS1-1040

Guideline vs. Practice: Real-World Patterns of Genetic Testing for Urologic Malignancies

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ABSTRACT: Introduction and Objective: Genetic testing plays a pivotal role in identifying hereditary cancer syndromes and guiding personalized treatment in urologic oncology. Despite guideline recommendations, real-world adherence to genetic testing protocols

remains unclear. To better characterize current utilization patterns and identify potential disparities, we analyzed genetic testing rates among eligible patients with urologic cancers using a large national database. **Methods:** We conducted a retrospective analysis of patients diagnosed with urologic cancers between 2021 and 2024 using the US Collaborative Network of TriNetX. Eligibility for genetic testing was determined based on AUA and NCCN guidelines for each cancer in 2021. We assessed the proportion of eligible patients who underwent genetic testing within one year of diagnosis, based on ICD-10 and CPT codes. **Results:** Among 125,860 patients meeting criteria, only 12,713 (10.1%) underwent genetic testing. Testing rates were highest in upper tract urothelial carcinoma (16.2%), and lowest in bladder cancer (8.6%) (Figure). Patients who underwent testing were significantly younger across all cancer types ($p < 0.05$). Higher proportion of White patients underwent genetic testing in kidney (68.4% vs. 63.0%, $p = 0.0057$), adrenal (70.0% vs. 66.0%, $p = 0.011$), bladder (77.0% vs. 71.0%, $p = 0.002$), and prostate cancers (79.0% vs. 72.0%, $p < 0.001$) (Figure). Among malignancies occurring in both genders, disparities in genetic testing rates were observed, reaching statistical significance only in bladder cancer (females, 33% vs. 36%, $p = 0.021$) (Table). **Conclusions:** Despite clear guideline recommendations, genetic testing remains underutilized across urologic cancers, with significant disparities by disease type, age, and race.

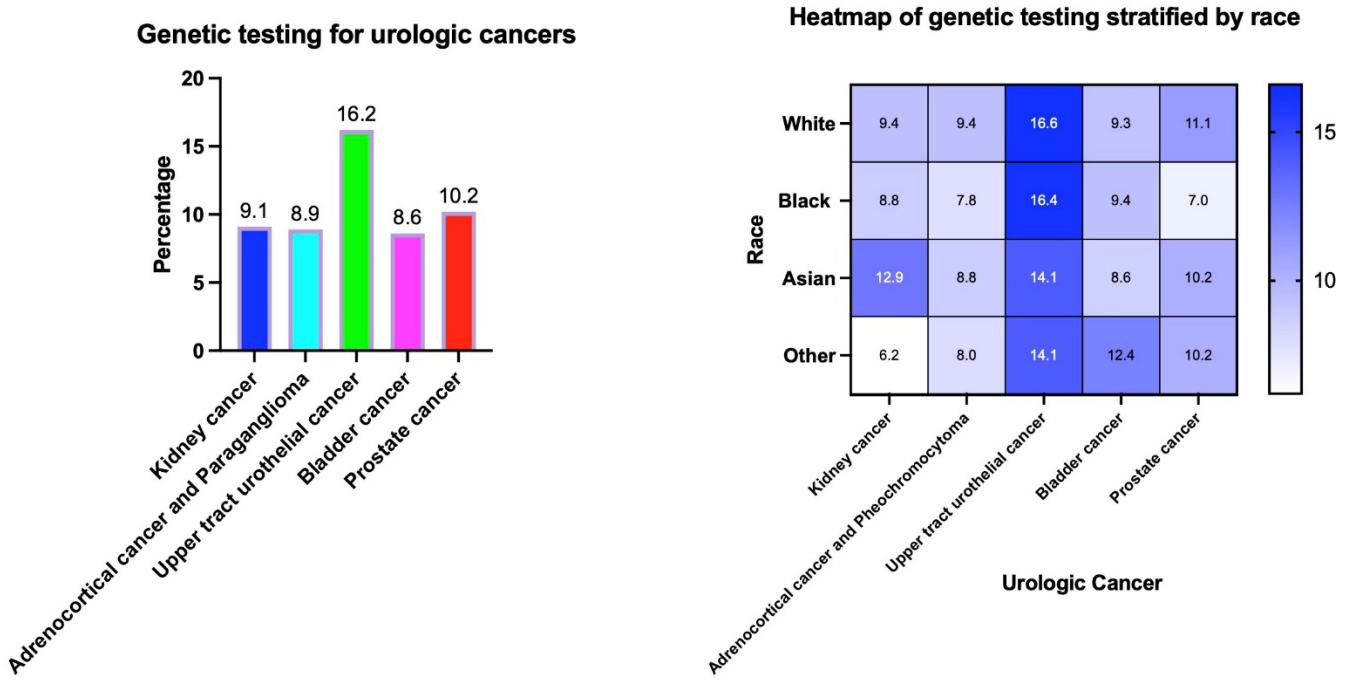


Table 1: Demographic characteristics of patients who underwent genetic testing when indicated and those who did not for various urologic cancers

(Yellow highlights = statistically significant)

	Kidney cancer		Adrenocortical carcinoma and pheochromocytoma		Upper tract urothelial cancer		Bladder cancer		Prostate cancer	
	Genetic testing: Yes (n=757)	Genetic testing: No (n=7560)	Genetic testing: Yes (n=1014)	Genetic testing: No (n=10311)	Genetic testing: Yes (n=523)	Genetic testing: No (n=2686)	Genetic testing: Yes (n=703)	Genetic testing: No (n=7428)	Genetic testing: Yes (n=9716)	Genetic testing: No (n=85162)
Age at index, years Mean, SD	33.3, 8.5	34.1, 7.4	53.5, 17.4	59.3, 16.6	48.1, 8.7	50.1, 7.7	67.2, 11.4	69, 11.6	69.9, 9.3	70.8, 9.6
Gender										
Male	4,017, 52%	416, 54%	345, 34%	3403, 33%	288, 55%	1558, 58%	471, 67%	4754, 64%	N/A	N/A
Female	3543, 46%	341, 45%	669, 66%	6908, 67%	235, 45%	1128, 42%	232, 33%	2674, 36%		
Race										
White	4,740, 63%	518, 68.4%	710, 70%	6805, 66%	397, 76%	1,988, 74%	541, 77%	5274, 71%	7676, 79%	61316, 72%
Black	1,061, 14%	102, 13.4%	193, 19%	2268, 22%	63, 12%	322, 12%	77, 11%	743, 10%	1360, 14%	17884, 21%
Asian	243, 3%	36, 4.7%	30, 3%	309, 3%	31, 6%	188, 7%	21, 3%	223, 3%	389, 4%	3406, 4%
Other	1516, 20%	101, 13.3%	81, 8%	928, 9%	31, 6%	188, 7%	21, 3%	149, 2%	291, 3%	2555, 3%

WED-CS1-1045

Risky Business: Prospective Evaluation of Risk Communication and Decision Making among Patients with Small Renal Masses

A. Keller, R. Chung, B. Croll, D. Chen, A. Kutikov, R. Lee, M. Smaldone, R. Uzzo, R. Viterbo, R. Greenberg, S. Leonard, E. Helstrom, J. Vega, S. Miller, E. Tagai and A. Correa

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ABSTRACT: Introduction and Objective: Although AS offers the most conservative, noninvasive, and nephron-sparing approach, it remains underutilized. While shared decision-making (SDM) for treatment consultations is uniformly recommended, the effectiveness of physician–patient risk communication regarding small renal masses (SRMs) and patient distress are poorly understood. We aimed to fill this gap by objectively measuring the quality of SDM discussions between patients and urologic oncologists and the association with patient-reported distress. **Methods:** Patients diagnosed with a SRM and scheduled for an initial visit were recruited. Patients with a known germline genetic risk, > CKD IIIa, or >1 SRM were excluded. Patients completed quantitative surveys at baseline and post-consultation. Distress was measured using the Impact of Events Scale–Revised. Using the evidence-based SHARE approach, visits were evaluated on a 5-step SDM model. A SHARE rubric was used to assign scores of 0–3 (0 = not completed, 3 = high quality). Bivariate analyses and ANCOVA were used to explore SHARE scores and distress at baseline and post-consultation. **Results:** 40 patients and 6 providers participated. 52% were male and median age was 64 (IQR 55,75). 15 chose AS, 6 decided on biopsy, 17 wanted surgery, and 2 chose ablation. The average scores for seek, explore, assess, reach, and evaluate were 2.3, 2.8, 2.5, 2.6, and 2.8, respectively. Overall, 23% and 21% of patients reported clinically significant distress at baseline and post-consultation, respectively. Patients reporting more distress at baseline and post-consultation had significantly lower assess scores compared to patients with less distress ($p < 0.05$). **Conclusions:** Patients reporting higher levels of distress had lower scores in the "assess" domain of the SHARE rubric. The association may reflect the inherent difficulty of engaging in personal, values-based conversations when patients are distressed. Our findings suggest that routine distress screening and provider training to increase assessment of patient values among those with high distress may be beneficial.

WED-CS1-1050

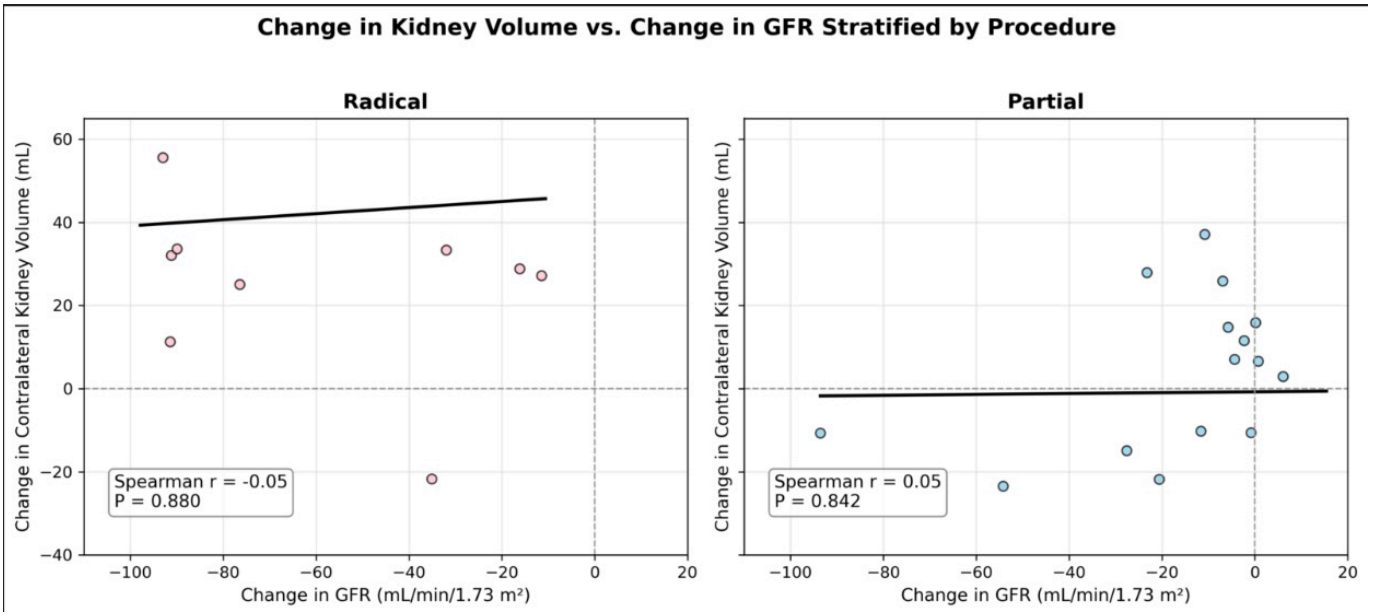
Significant Contralateral Renal Hypertrophy Occurs after Radical but Not Partial Nephrectomy for T2 Renal Masses: A Quantitative 3D Modeling Analysis

M. Lesgart, R. Chung, A. Keller, B. Croll, V. Izo, R. Uzzo, A. Kutikov and R. Lee

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ABSTRACT: Introduction and Objective: Compensatory renal hypertrophy (CRH) is a structural and functional adaptation to maintain the kidney function following partial (PNx) or radical nephrectomy (RNx). Studies suggest contralateral CRH strongly predicts preserved kidney function. We utilized a novel advanced 3D modeling software to calculate kidney volumes (KVs) from cross sectional imaging to examine KV change and its impact on postoperative kidney function. **Methods:** Patients with lesions >7 cm who had PNx or RNx 2014–2019 were identified in our institution's database. KVs and lesion volumes were measured with Synapse 3D (Fujifilm Medical Co, Tokyo, Japan). Growth rate was calculated by dividing ΔKV (mL) by time (yr) since surgery. Patients were stratified by RNx and PNx. Analysis of covariance was performed, adjusting for preop GFR and nephrometry score (NS). A spearman rank correlation coefficient analysis assessed whether a greater degree of ΔKV corresponded to a proportional ΔGFR. **Results:** Of 30 patients with lesions >7 cm, 18 (60%) and 12 (40%) patients underwent PNx and RNx, respectively. The median contralateral ΔKV was 4.8 mL (IQR −13.9, 15.6) and 32.7 mL (IQR 26.7, 65) for the PNx and RNx cohorts, respectively ($p = 0.003$). Adjusting for preoperative KV and NS, contralateral KV increased significantly comparing to RNx to PNx (mean adjusted difference 63 mL, $p = 0.008$). There was no association between contralateral ΔKV and ΔGFR, indicating the relationship between CRH and GFR in both cohorts was not significant (RNx $p = 0.88$; PNx $p = 0.84$) (Fig. 1). **Conclusions:** We found that patients with T2 lesions undergoing RNx had significantly greater postop CRH

of the contralateral kidney compared to those undergoing PNx, independent of preop KV and NS. However, ΔKV was not correlated with a change in renal function.



WED-CS1-1055

Stage-Dependent Disparities in Receipt of Definitive Surgery for Renal Cell Carcinoma: Insights from NCDB 2022

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ABSTRACT: Introduction and Objective: Surgical resection is the standard of care for stage I-III renal cell carcinoma (RCC). Prior literature describes differences in RCC incidence and mortality, however, whether differences in receipt of surgery vary stage to stage remains unclear. We evaluated demographic, socioeconomic, and facility-level predictors of surgery and whether the impact of race and insurance status differs between stage groups. **Methods:** We performed a retrospective cohort study using the National Cancer Database (NCDB) kidney Participant User File (2004–2022). We included Patients with stage I-III RCC. Metastatic or unknown stage were excluded. The primary outcome was receipt of definitive surgery (NCDB procedure codes 30–80). Multivariable logistic regression models were fit for three groups: stage I-II, stage I-III, and stage III. Models adjusted for age, sex, race, insurance status, comorbidity index, income quartile, education quartile, urban-rural residence, and facility type. Stage-by-race and stage-by-insurance interaction terms were evaluated using likelihood ratio testing. **Results:** The final cohort included 451,096 stage I, 60,399 stage II, and 107,465 stage III patients. Surgical utilization increased with stage (78% stage I, 92% stage II, 94% stage III). Black patients had lower adjusted odds of surgery than White patients, with disparities widening in stage III disease (stage I-II OR 0.80 vs. stage III OR 0.40). Medicaid and uninsured patients also had reduced odds of surgery, particularly in stage III disease (Fig. 1). Community cancer programs were associated with lower surgical utilization than academic centers (Fig. 1). Interaction analyses confirmed significant effect modification by stage for race and insurance ($p < 0.001$). **Conclusions:** Disparities in receipt of surgery exist across demographic and socioeconomic groups, worsening in stage III disease. As surgical complexity increases, barriers to surgical care may affect vulnerable groups.

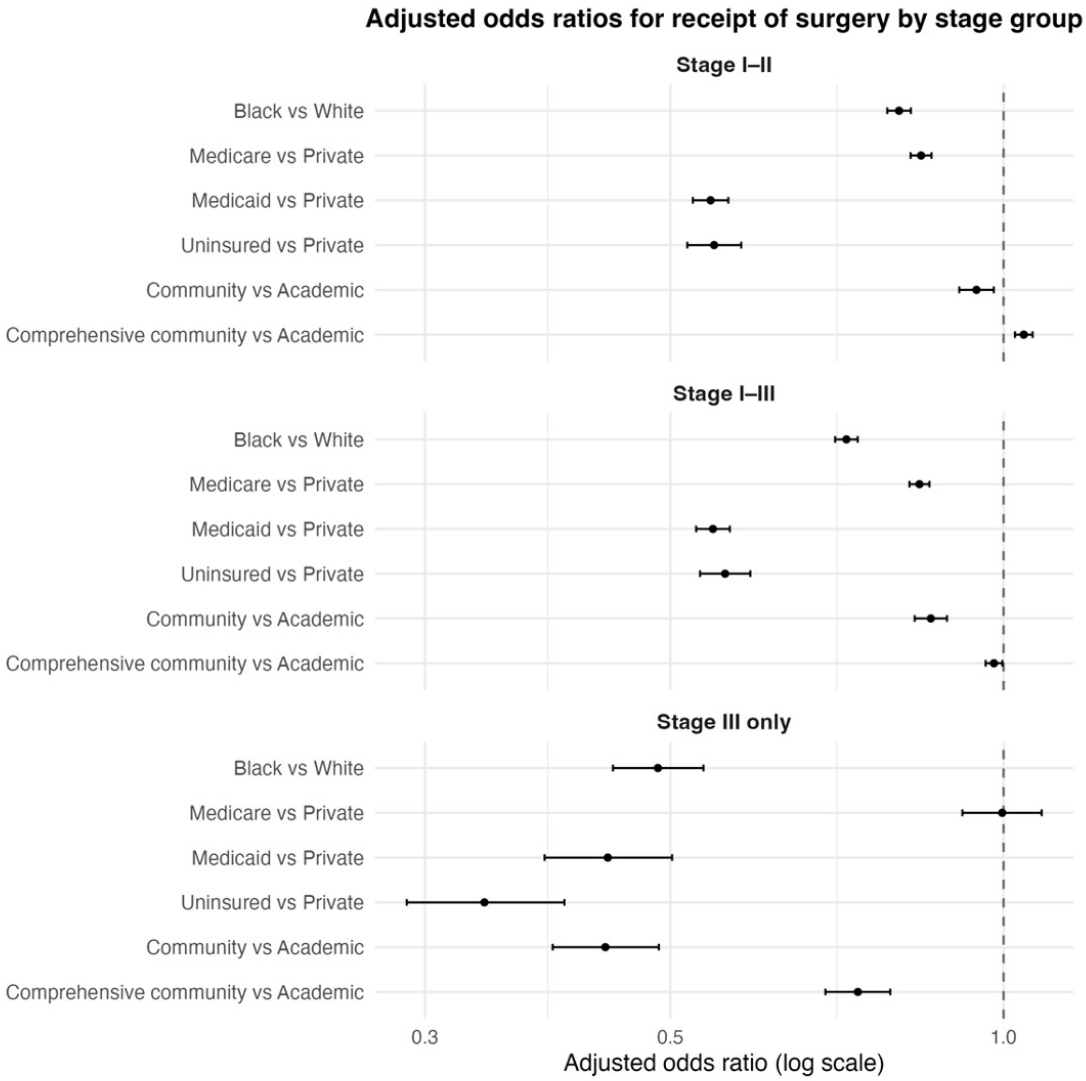


Figure 1: Adjusted odds ratios for receipt of surgery for renal cell carcinoma stratified by stage group, highlighting disparities by race, insurance status, and facility type.

Mini-Podium Session 2: Workforce Concerns, Surgical Technology, and Imaging

WED-CS2-1345

Surgical Upstaging of Radical Prostatectomy Patients in the MRI Era: A Retrospective Cohort Study

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ABSTRACT: Introduction and Objective: Surgical upstaging after radical prostatectomy has historically been reported in approximately one-third of patients staged using DRE, PSA, and transrectal ultrasound/biopsy. Over the past decade, preoperative multiparametric MRI (mpMRI) has become increasingly utilized to aid clinical staging, surgical planning, and risk stratification in prostate cancer. However, it remains unclear whether rates of surgical upstaging have changed in the MRI era. We sought to characterize the prevalence of surgical upstaging in a contemporary cohort of patients undergoing radical prostatectomy following mpMRI and to examine preoperative clinical predictors of upstaging. **Methods:** Four hundred and four patients with preoperative mpMRI who underwent radical prostatectomy at a single institution between January 2021–April 2025 were retrospectively reviewed. Preoperative variables included age, race, PSA, clinical stage, grade, time from diagnosis to surgery, and the presence of capsular bulge on mpMRI. Postoperative variables included pathologic stage, grade, and upstaging. Clinical and pathologic staging were determined according to the AJCC TNM Staging Manual (8th edition). Multivariable logistic regression was performed, reporting adjusted odds ratios (aORs) with 95% confidence intervals (CIs). $p < 0.05$ was considered statistically significant. **Results:** A total of 134 (33.2%) patients experienced surgical upstaging. Age, race, preoperative PSA, and time from diagnosis to surgery were not significant predictors of surgical upstaging. While the presence of organ-confined disease (Stage II) was not associated with surgical upstaging (aOR 0.39, 95% CI 0.09–1.71, $p = 0.213$), patients with peripherally-located tumors with capsular bulge on preoperative mpMRI were significantly associated with upstaging (aOR 1.83, 95% CI 1.05–3.19, $p = 0.033$). **Conclusions:** Surgical upstaging occurred in approximately one-third of patients undergoing radical prostatectomy, which is consistent with historical rates. Presence of capsular bulge on preoperative mpMRI was independently associated with upstaging, suggesting that it may serve as a useful risk-stratification marker to identify patients at higher risk for upstaging and inform surgical planning in the MRI era.

WED-CS2-1350

Effect of Radiologist Experience in Detection Rates of Clinically Significant Prostate Cancer on MRI-US Fusion Biopsy

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ABSTRACT: Introduction and Objective: Prostate MRI is recommended prior to biopsy to increase detection rate of clinically significant prostate cancer (csPCa) (Gleason 7+). PIRADS scores can identify legions at risk for csPCa allowing for targeted biopsy. This strategy is limited in part by radiologist experience. Radiologists with prior specialized training, higher number of prostate MRIs read, and overall years of experience are all related to higher likelihood of findings csPCa on targeted biopsy. **Methods:** We analyzed targeted biopsy specimens at a single academic center from 1/1/23–6/30/25 to determine the accuracy of targeted biopsies. We aimed to examine results between the most experienced GU radiologist and other radiologists. A total of 818 legions were biopsied from 634 patients. All biopsies were done under sedation using a transperineal MRI-US fusion technique. The most experienced GU radiologist reead nearly half (N = 295) of the MRIs and 12 radiologists read at least one. Detection of csPCa on PIRADS legions interpreted by our dedicated GU Radiologist were compared to all other radiologists. **Results:** Our experienced GU Radiologist had a higher percentage of PIRADS legions

containing csPCa on biopsy (Table 1). When comparing type of PI-RADS legion, our experienced GU Radiologist also identified a higher proportion of PIRADS4 (56% vs. 44%) and fewer PIRADS3 legions (20% vs. 31%) as compared to the others. **Conclusions:** This adds to existing literature that dedicated GU radiology specialization correlates with more accurate PIRADS scores and detection of csPCa. More experience may also allow for less equivocal PIRADS3 legions and therefore fewer unnecessary biopsies. Data can be used to improve cancer detection rates, counsel patients, and avoid unnecessary procedures resulting in less patient stress, lower risks, and lower healthcare cost.

Table 1. Comparison of detection of clinically significant prostate cancer (GG2 or Gleason 7) between dedicated GU radiologist and all other radiologists stratified by PIRADS score

		Dedicated GU Radiologist (N = 373)		**All Other Radiologists (N = 445)**		
	Published Detection Rate	Total Legions	% with csPCa	Total Legions	% with csPCa	Z score
PIRADS 3	12-25%	N = 74	32.4%	N= 139	17.3%	2.51104**
PIRADS 4	40-60%	N = 209	56.0%	N = 199	31.7%	4.94084**
PIRADS 5	70-90%	N = 90	91.1%	N = 107	77.6%	2.55967**

**statistically significant with p-value <0.01

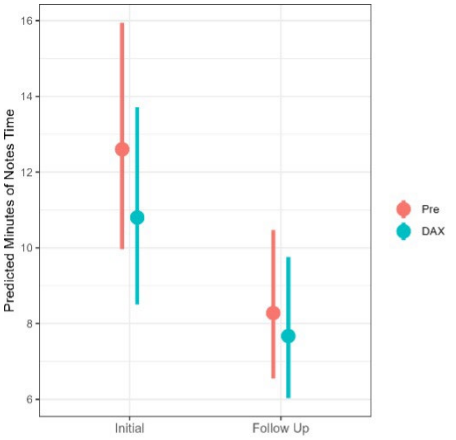
WED-CS2-1355

Ambient AI Scribing in Urology

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ABSTRACT: Introduction and Objective: Ambient AI scribes demonstrate reductions in documentation time and improved clinician satisfaction across diverse settings, particularly in documentation-intensive fields such as primary care and emergency medicine. There has been limited reporting of utility in within urologic practice. Here we describe the effects of DAX on urology encounter and documentation efficiency. **Methods:** De-identified encounter level data were pooled from January 1 to May 31 2025, with 3 months of pre-DAX pulled as control. Provider activity within charts was tracked in seconds for each outpatient visit. We performed descriptive statistics for DAX's overall utilization and total encounter time. Impacts on documentation time, with secondary analysis of initial visits (IVs) and follow-up visits (FVs), were assessed via negative binomial mixed effects model. Note quality was not assessed. **Results:** Overall there were 9689 total encounters, with 831 (8.6%) utilizing DAX. A slightly greater proportion of visits had same day closure in pre-DAX visits (79%) than the DAX visits (77%). Encounters utilizing DAX showed longer total encounter time, with median pre-DAX being 16.3 min (11.3, 24) compared to 18.4 min (13.5, 25.7) with DAX. According to the model results for note documentation time, DAX predicted a reduction of 0.6 min. IVs saw a greater benefit from AI scribing with a reduction of 2 min in documentation while FVs saved 0.6 min (figure). **Conclusions:** Ambient AI scribing tools are positioned as attractive options to reduce burnout from documentation; however, results show a disparity in utility by visit type. By nature of training, the software may be biased towards primary care, undermining assessments within surgical care. We expect user and software learning to affect these results longitudinally and look forward to reporting on these effects.



WED-CS2-1400

Impact of a Pre-Clerkship Urologic Surgery Skills Simulation on Student Confidence and Interest in Surgical Careers

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ABSTRACT: Introduction and Objective: Early simulation-based exposure improves medical student confidence and clinical readiness, yet long-term retention of these skills is rarely assessed. We evaluated immediate and 4-month confidence trends, perceived competence, and interest in surgical specialties following a pre-clerkship urology skills workshop. **Methods:** First-year medical students completed a five-station simulation-based urology workshop (laparoscopy, suturing, knot tying, cystoscopy, and urethral catheter placement). Pre- and post-event surveys assessed self-reported confidence and career interest (Likert 1–5, reported as mean ± standard deviation). A 4-month follow-up survey was distributed to the full class. Paired *t*-tests assessed pre/post changes. **Results:** Sixteen students participated in the workshop (93.8% interested in surgical/procedural careers). Twelve participants (75%) had some experience with suturing or knot-tying, three (18.8%) had no prior surgical skill experience, and eleven (68.8%) report never consistently practicing any surgical skills. Pre-workshop confidence was uniformly low in laparoscopy (1.19 ± 0.40), suturing (1.87 ± 0.92), knot-tying (2.12 ± 0.96), cystoscopy (1.12 ± 0.34), and catheterization (1.12 ± 0.34). All skills improved immediately post-workshop to about moderate comfort (laparoscopy 3.56 ± 0.81, suturing 3.00 ± 0.76, knot-tying 3.38 ± 0.89, cystoscopy 3.19 ± 0.75, catheterization 3.69 ± 0.79; all paired $p < 0.001$). At 4 months, five attendees and one non-attendee responded to a follow-up survey. Among attendees, confidence was 2.80 ± 1.30 for laparoscopy, 2.80 ± 0.84 for suturing, 2.40 ± 0.89 for knot-tying, 2.00 ± 1.22 for cystoscopy, and 2.40 ± 1.14 for catheterization. Non-attendee confidence was lower across skills. All attendee respondents maintained or increased their interest in surgical fields, whereas the non-attendee was less inclined to pursue a surgical career. **Conclusions:** A focused pre-clerkship urology workshop produced large immediate gains in confidence across core skills. Limited follow-up data suggest partial durability for laparoscopy and suturing at 4 months, with attrition for catheterization, cystoscopy, and knot-tying. These patterns support refresher or spaced sessions for skills with steeper decay.

WED-CS2-1405

International Medical Graduates in the United States Urologic Workforce: Results from the American Urological Association Annual Census

S. Sanam Venkata[1], W. Meeks[2], E. Galen[2], J. Atkinson[3,3], C. Pierre[3], J. Owens-Walton[1], K. Billups[3] and M. Tuong[1]

[1]University of Virginia Department of Urology, Charlottesville, VA, USA; [2]American Urological Association, Linthicum, MD, USA; [3]Meharry Medical College School of Medicine, Nashville, TN, USA

ABSTRACT: Introduction and Objective: International medical graduates (IMG) are physicians who attended medical school outside the United States (US), Puerto Rico, or Canada. Between 2020–2022, 9.2–11.1% of practicing urologists are IMGs. Our objective is to compare demographic characteristics of IMG urologists and US-graduate urologists (USMG) to provide insight on workforce composition and identify future needs. Ultimately, exploring workforce characteristics helps understand access to urologic care: who provides that access and what shape the ability to provide access. **Methods:** Data were collected from the American Urological Association (AUA) Annual Census from 2020 to 2022. IMGs were defined by response to "Country where medical school was attended." Responses were weighted using post-stratification techniques to account for non-response bias based on gender, location, certification status, and years since certification. All analyses were performed using SPSS 29 to produce an adjusted χ^2-statistic. **Results:** IMGs represent 10% of the workforce in any year, and many were educated in lower-middle income countries based on World Bank classification (Table 1). IMGs had a higher proportion of older urologists and identified as late-career than USMGs across all three years ($p < 0.01$). There was no significant difference between IMGs and USMGs in subspecialty status or practice setting, but IMGs more frequently practice in nonmetropolitan areas per Rural-Urban Commuting Area Codes ($p < 0.01$). **Conclusions:** IMGs are an aging component of the urologic workforce who provide care to rural populations. Measures must be taken to ensure these patients receive continued access to care when expanding the urologic workforce as IMG urologists move or retire.

Comparison of Workforce Characteristics across IMG and USMG Urologists from 2020-2022

	2020			2021			2022		
	IMG	USMG	P-value	IMG	USMG	P-value	IMG	USMG	P-value
Country of medical education									
High-income	22%	100%	N/A	16%	100%	N/A	15%	100%	N/A
Upper-middle income	32%	0		34%	0		28%	0	
Lower-middle income	44%	0		46%	0		53%	0	
Low income	2%	0		4%	0		5%	0	
Age									
<45 years	22%	31%	**<0.01**	25%	31%	**<0.01**	21%	31%	**<0.01**
45-54 years	14%	21%		17%	21%		21%	20%	
55-64 years	12%	21%		10%	21%		12%	23%	
65+ years	51%	28%		47%	28%		46%	26%	
Gender									
Male	99%	89%	**<0.01**	100%	88%	**<0.01**	100%	87%	**<0.01**
Female	1%	11%		0%	12%		0%	13%	
Sections									
Mid-Atlantic	13%	10%	**<0.01**	11%	10%	**<0.01**	12%	10%	0.11
New England	5%	6%		6%	6%		5%	6%	
New York	10%	7%		9%	8%		7%	8%	
North Central	16%	18%		17%	18%		15%	19%	
Northeastern	11%	3%		11%	3%		8%	3%	
South Central	15%	14%		12%	15%		18%	14%	
Southeastern	16%	21%		18%	21%		17%	21%	
Western	15%	20%		17%	20%		17%	19%	
Specialty									
General without subspecialty	57%	58%	0.11	60%	58%	0.56	52%	56%	0.21
Oncology	16%	12%		12%	11%		18%	12%	
Pediatrics	7%	8%		6%	7%		6%	8%	
Endourology	12%	8%		13%	9%		13%	9%	
Female pelvic medicine and recon	5%	7%		6%	8%		7%	9%	
Andrology	1%	5%		4%	5%		2%	5%	
Other	1%	2%		0%	1%		1%	1%	
Practice setting									
Academic	29%	29%	0.79	32%	28%	0.47	35%	30%	0.48
Public	11%	13%		9%	13%		12%	12%	
Private	60%	59%		59%	59%		53%	59%	
Practice location									
Metropolitan	87%	90%	**<0.01**	84%	91%	**0.02**	77%	91%	**<0.01**
Non-metropolitan	13%	10%		16%	9%		15%	9%	
Years in practice									
Early career (0-10 years)	29%	31%	**<0.01**	34%	31%	**<0.01**	30%	4%	**<0.01**
Mid career (11-20 years)	14%	20%		12%	20%		17%	19%	
Late career (21+ years)	57%	49%		53%	49%		53%	48%	
TOTAL	**1225**	**12127**		**1429**	**12361**		**1550**	**12426**	

WED-CS2-1410

Operating Room (OR) Safety: An Evaluation of the Injury Reporting Process at Medstar Georgetown University Hospital (MGUH)

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ABSTRACT: Introduction and Objective: Injuries occurring in the OR are underreported and underestimated. We aimed to determine which OR personnel sustain injuries, the types of injuries occurring, and factors influencing reporting behavior to identify potential barriers within the reporting process. **Methods:** Using REDCap, an anonymous survey was distributed to individuals working in the OR at MGUH, including physicians, medical students, nurses, and other OR staff across surgical specialties. Respondents were asked whether they had experienced/witnessed injuries shown in Table 1. Injuries were quantified and stratified by type, role in the OR, and surgical specialty. Reporting patterns to the Department of Occupational Health and Safety (OHS) were analyzed. **Results:** To date, 94 OR personnel have responded (30% residents/trainees, 24% nurses, 18% medical students, 13% attendings, 4% surgical technicians, and 11% other OR staff) with a 71.2% complete response rate. Twenty-eight injuries were reported, most frequently needlestick (n = 15) and head injuries (n = 5). Additionally, 66.3% of respondents witnessed an injury. Attendings reported the highest personal injury rate (41.7%), followed by residents (32.1%) and nurses (26.1%). Nurses and other OR staff more commonly experienced non-BBPE injuries, while personnel working closer to the sterile field more frequently reported BBPE injuries. Residents and medical students were least likely to report injuries. Over 90% of respondents indicated they would be more likely to report injuries if the reporting process were more efficient. **Conclusions:** Residents and nurses appear most at risk for OR injuries, while residents and medical students are least likely to report them. Streamlining the reporting and testing process, improving after-hours access to OHS services, and ensuring injuries do not influence evaluations may improve reporting and enhance workplace safety.

Table 1

Blood Borne Pathogen Exposures (BBPE)	Non-BBPE
Splashes	Patient handling
splatters	Slips/Trips/Falls
Sharps/percutaneous injuries	Workplace Violence
	Burns
	Chemical Exposures
	Infectious Exposures
	Other Injuries

WED-CS2-1415

Urologic Surgery Passport: Getting Patients to Surgery Safely While Reducing Administrative Burden for Surgical Teams

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[1]Virginia Commonwealth University Dorothy A. Pauley Department of Urology, Richmond, VA, USA; [2]Virginia Commonwealth University School of Medicine, Richmond, VA, USA; [3]Children's Hospital of Richmond at Virginia Commonwealth University, Richmond, VA, USA

ABSTRACT: Introduction and Objective: Ensuring that patients complete appropriate pre-operative testing and obtain necessary referrals is essential for reducing surgical risk and optimizing outcomes. However, these tasks can create a substantial administrative burden for clinical trainees. The objective of this quality improvement project was to better quantify and understand the impacts of this workload, and to identify possible solutions. **Methods:** VCU Urology residents completed a survey of multiple-choice and Likert-scale questions assessing time spent on pre-operative administrative tasks while on the VCU adult service during the 2025–2026 academic year, and the perceived impact on education. Department members—including attending surgeons, residents, and advanced practice providers—identified workflow inefficiencies and implemented short-term process improvements. **Results:** Among the residents, PGY-2 trainees reported the greatest time burden related to pre-operative tasks on the VCU adult service, averaging 3.6–4.3 h/day (n = 3). This was followed by PGY-3 residents, who reported an average of 2–3 h daily (n = 2). The remaining residents each reported spending an average of 1–2 h/day on these duties (combined n = 7). All residents (100%, n = 13) agreed or strongly agreed that the administrative workload had negatively affected their personal or professional development. To address this, the team developed a "Surgical Passport" designed to provide patients with clearer guidance regarding pre-operative requirements. The passport outlines steps for scheduling, completing ancillary appointments (e.g., Anesthesia, Wound Care), understanding the rationale and procedures for required laboratory testing, and best practices for communication with the surgical team. **Conclusions:** Preparing for surgery can be a stressful process for patients and often requires substantial planning and coordination by the surgical team, which can be perceived as detrimental to trainee development. A "surgical passport" was therefore developed to standardize the information provided to patients and reduce the upfront administrative burden on providers while recruitment for a surgical nurse navigator position is underway.

WED-CS2-1420

Resident Burnout, Wellbeing, and the Tangible Impact of Scheduled Resident Wellness Events

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ABSTRACT: Introduction and Objective: Resident burnout and stress are highly prevalent yet arduous dilemmas nationally. The objective of this study is to determine the potential benefit of monthly scheduled resident-attending wellness events in alleviating physician burnout and promoting resident wellbeing. **Methods:** This is a cross-sectional review of current surgical residents at a single tertiary academic medical center in regard to burnout and wellbeing. The first cohort (SWE) participated in monthly scheduled wellbeing events including faculty and residents. The comparison cohort encompassed surgical residents without regularly scheduled wellness events (non-SWE). Wellbeing was measured using the validated Mayo Clinic Well-Being Index and five additional questions pertaining to wellness events. Results were collected via an optional survey. Differences in wellness scores between cohorts were assessed utilizing a Mann Whitney U test, and categorical survey responses were compared using Fisher's exact test. Statistical significance was defined as $p < 0.05$. **Results:** 20 residents responded with 8 in the SWE cohort and 12 in the non-SWE cohort. A lower Well-Being Index score (0 as minimum, 7 as maximum) indicated less emotional and mental distress. SWE residents had a significantly lower median Well-Being Index score compared to non-SWE (0 [IQR 0–1.3] vs. 5 [IQR 4–6]; p =0.001). 88% of SWE residents reported wellness events as a positive impact on well-being compared to 8% of non-SWE (p = 0.0008). SWE residents were more likely to report these events as valuable to them (88% vs.17%, p = 0.005). The majority of residents indicated that residency programs should offer more regularly scheduled wellness events (88% vs. 50%). **Conclusions:** The incorporation of scheduled resident wellness events with program faculty demonstrated exceptional and improved levels of wellness and mental health in a small-scale study. Conveying this intervention, with its associated analysis, may help provide others with a framework and basis to enhance resident wellbeing and mitigate burnout.

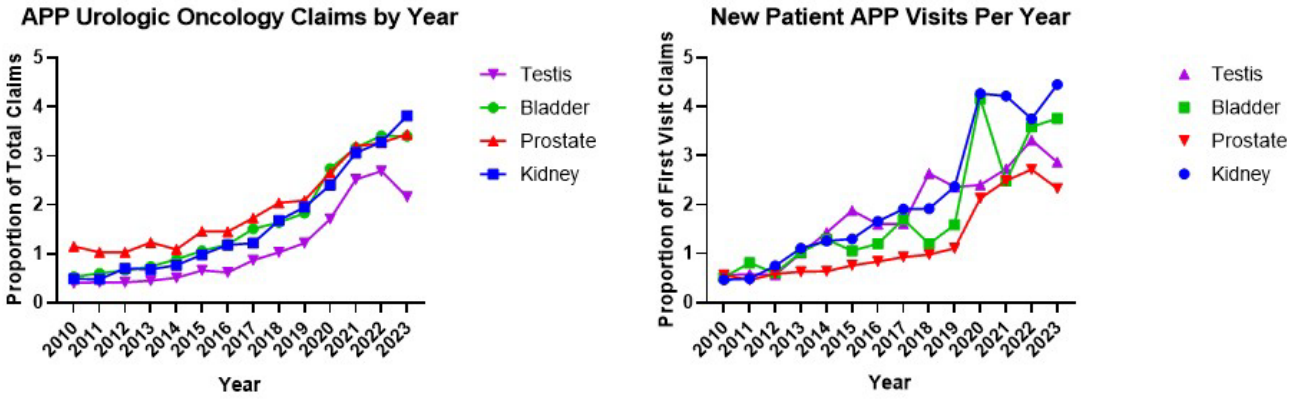
WED-CS2-1425

Trends in Advanced Practice Provider-Led Outpatient Visits and Procedures for Urologic Oncology Care

A. Kodavatikanti[2], A. Weitzner[1], S. Lokeshwar[1], C. Cronin[1], P. Korn[1] and N. Singla[1]

[1]Johns Hopkins School of Medicine, Baltimore, MD, USA; [2]Georgetown University School of Medicine, Washington, DC, USA

ABSTRACT: Introduction and Objective: Advanced practice providers (APPs) play a vital role in urologic care, especially as workforce shortages and patient demands continue rising. We evaluated national temporal trends of APP involvement in outpatient urologic oncology visits and procedures. **Methods:** The Merative MarketScan database was used to identify all outpatient visit claims associated with ICD-9/10 genitourinary cancer (prostate, kidney, bladder, testis) diagnosis. APP care was flagged with a vendor-derived variable. Descriptive statistics were used to characterize the proportion of first-time and total visits conducted by APPs from 2010 to 2023. Association of patient-specific factors (age, region, urbanicity, insurance, CCI) with APP use were characterized by Wilcoxon rank-sum and Chi-squared tests for continuous and categorical variables, respectively. **Results:** APP-primary claims increased from 0.88% in 2010 to 3.38% in 2023 (Fig. 1) and were highest for prostate cancer (1.79%, $p < 0.001$). Differences among cancers grew from 2019 onward, due to lower APP utilization among testicular cancer patients ($p < 0.001$). APP-led new patient visits increased from 0.54% in 2010 to 3.07% in 2022, before declining to 2.98% in 2023. APP-led patients were more likely to reside outside of the Northeast in non-urban areas, have non-HMO/PPO insurance and have lower medical complexity ($p < 0.001$). APP-led urodynamic studies increased from 1.23% in 2019 to 7.89% in 2020, while APP-led cystoscopies and prostate biopsies remained stable. APP-performed cystoscopy was higher outside of the Northeast, in non-PPO/HMO insurance, and rural settings ($p < 0.001$). APP-performed prostate biopsy was more common in younger patients ($p = 0.044$). **Conclusions:** APP involvement in urologic oncology has increased over the past decade, both for clinic visits and procedures. APP-led care was more common in non-urban regions and outside of the Northeast.



WED-CS2-1430

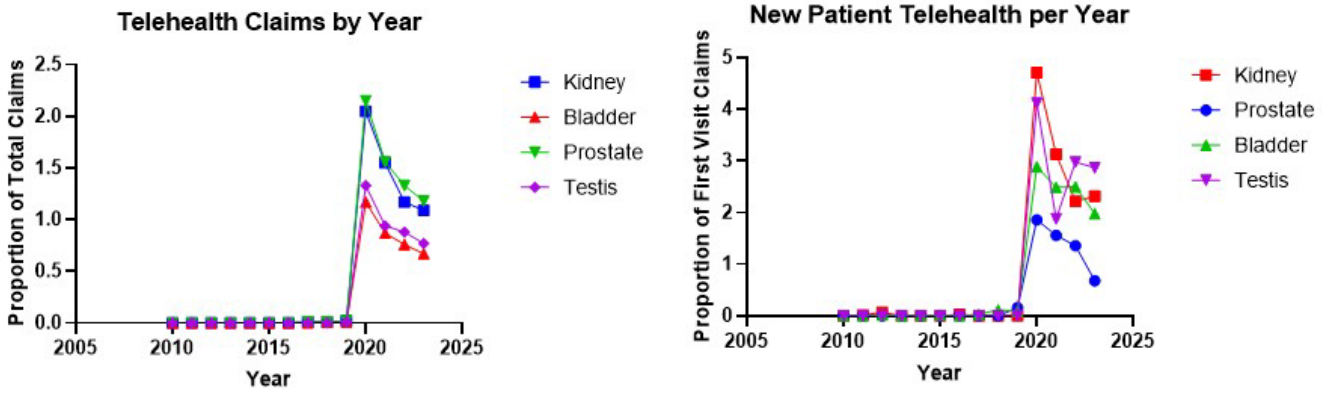
Telehealth Utilization Trends and Determinants in Urologic Oncology

A. Kodavatikanti[2], A. Weitzner[1], S. Lokeshwar[1], C. Cronin[1], P. Korn[1] and N. Singla[1]

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ABSTRACT: Introduction and Objective: Since the COVID-19 pandemic, telehealth has emerged as a vital modality for care delivery, improving specialty care access while diminishing unnecessary travel. We evaluated national temporal trends and patient characteristics associated with telehealth use in outpatient urologic oncology visits. **Methods:** We used the Merative MarketScan database to identify outpatient visit claims associated with ICD-9/10 diagnoses of genitourinary malignancy (prostate, kidney, bladder, testis) diagnosis. Telemedicine encounters were identified with a vendor-derived variable. Descriptive statistics were used to characterize the proportion of first-time and total visits conducted by telemedicine from 2010 to 2023. Associations between patient-specific factors (age, region, urbanicity, insurance, CCI) and telehealth utilization were evaluated using Wilcoxon rank-sum for continuous variables and Chi-squared tests for categorical variables. **Results:** Overall telehealth claims rose rapidly during the COVID-19 pandemic, from 0.02% in 2019 to 1.93% in 2020, before declining to 1.06% in 2023 (Fig. 1). Kidney and prostate cancer visits were significantly more likely to occur via telehealth (0.28%) than bladder (0.14%) and testis (0.16%) visits ($p < 0.001$). Overall telehealth for new patient visits increased from 0.08% in 2019 to 3.2% in 2020, followed by a decline to 1.97% in 2023. Kidney (0.47%), prostate (0.37%) and testis (0.40%) new patient visits were more frequently conducted via telehealth than bladder cancer visits (0.16%) ($p < 0.001$). Patients receiving telehealth were more

likely to be male, reside in the Western U.S., live in urban regions, have HMO insurance and have higher comorbidity burden ($p < 0.001$). **Conclusions:** While rates of telehealth have declined since the COVID-19 pandemic, use remains higher than pre-pandemic levels. To our knowledge, this is the first national study to characterize telehealth utilization stratified by genitourinary cancer type.



WED-CS2-1435

Silencing the Pager: A Quality Improvement Initiative to Reduce Overnight Resident Pages

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ABSTRACT: Introduction and Objective: Overnight home call during residency can result in significant sleep disturbances, fatigue, and negatively affect wellbeing. Our goal is to decrease overnight pages by identifying common and possibly preventable reasons for overnight pages with the overarching goal of improving resident overnight sleep quality and wellbeing. **Methods:** We performed a qualitative analysis on one month of overnight (8 p.m.–6 a.m.) text page data for a small 10 resident program; this was further broken down by pages from 10 p.m.–5 a.m. which was the agreed upon hours for residents to be sleeping. Pages were analyzed independently by two coders before final themes were agreed upon. **Results:** Of the 197 overnight pages, 31% were potentially avoidable. Common themes include general admission and nursing orders (diet, IV fluids, maintain foley/arterial line), notifications for asymptomatic hypertension, and as needed medications for pain and comfort. **Conclusions:** Next steps include using this data to create a customized orderset within the EMR which includes these orders. After implementation, we will again assess overnight pages to determine if the intervention was successful.

Table 1. Themes from overnight pages broken down by time and if potentially preventable

	Total (N=197)	10pm- 5am (N=109)	8pm-10pm & 5am-6am (N=88)
Potentially Preventable	**31% (N=62)**	**27% (N=30)**	**36% (N=32)**
Medications	16% (N=31)	13% (N=14)	19% (N=17)
Vital Signs	7% (N=14)	7% (N=8)	7% (N=6)
Orders	9% (N=17)	7% (N=8)	10% (N=9)
Likely Not Preventable	**69% (N=135)**	**73% (N=79)**	**64% (N=56)**
New Consults	35% (N=66)	36% (N=39)	31% (N=27)
Patient Evaluation	15% (N=30)	17% (N=18)	14% (N=12)
Patient Calls	6% (N=12)	6% (N=7)	6% (N=5)
Catheter Issues	7% (N=13)	8% (N=9)	5% (N=4)
Unknown	7% (N=14)	6% (N=6)	10% (N=9)

WED-CS2-1440

A Multi-Institutional Analysis of Gender Bias in Press Ganey Scores in Urology and Other Surgical Specialties

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ABSTRACT: Introduction and Objective: Patient experience is central to healthcare quality assessment and increasingly tied to compensation. Press Ganey (PG) surveys measure patient satisfaction; we aim to evaluate provider gender-based differences in PG scores within urology and among other surgical specialties. **Methods:** Twenty academic institutions with urology departments across all 9 US-Census-defined regions were analyzed. Custom Python scripts extracted each surgeon's name, gender, specialty, PG rating, and number of ratings. An artificial intelligence model was used to predict gender using first names if not explicitly stated. The Mann-Whitney U test was used to compare PG ratings; Chi-square or Fisher's exact tests assessed gender distribution differences in the top and bottom decile in PG ratings. **Results:** Out of 3557 surgeons (34.2% female, 65.8% male), 327 were urologists (21.1% female, 78.9% male). Between female and male urologists, PG ratings and number of ratings did not differ. Female urologists had lower mean PG ratings than female general surgeons (4.78 vs. 4.84, $p < 0.01$) and obstetricians/gynecologists (OBGYN) (4.78 vs. 4.82, $p = 0.03$), but no other specialties. In the top decile of urology PG ratings (≥4.9), 17.1% were female; in the bottom (≤4.7), 21.6% were female. Only general surgery had significant gendered differences in PG scores (female 4.84 vs. 4.83, $p = 0.03$), as well as a greater proportion of female providers in the top decile ($p < 0.01$) when compared to overall gender distribution. **Conclusions:** PG scores were uniformly high across surgical specialties, with no significant gender difference within urology. Female urologists experienced lower ratings than other specialties with historically greater proportions of women. Investigating the gender-neutrality of scores may be better tested by written comment analysis to contextualize patient sentiments.

Specialty	Gender	n	Mean Rating	Median Rating	p-value	Number of Ratings	Number of Ratings	p-value	Top 10th Percentile	p-value	Bottom 10th Percentile	p-value
Urology	F	69 (21.1%)	4.78	4.8	0.27	291.8	255	0.28	24 (17.1%)	0.17	16 (21.6%)	1.00
	M	258 (78.9%)	4.81	4.8		369.4	275.5		116 (82.9%)		58 (78.4%)	
Cardiothoracic Surgery	F	5 (21.7%)	4.88	4.9	0.85	149.2	140	0.35	4 (23.5%)	1.00	1 (16.7%)	1.00
	M	18 (78.3%)	4.87	4.9		218.2	189		13 (76.5%)		5 (83.3%)	
General Surgery	F	213 (28.1%)	4.84	4.9	0.03*	157.6	120	0.23	124 (32.5%)	0.01*	34 (26%)	0.62
	M	545 (71.9%)	4.83	4.8		170.4	125		258 (67.5%)		97 (74%)	
Neurosurgery	F	25 (10.4%)	4.75	4.8	0.12	138.3	80	< 0.01*	5 (5.5%)	0.08	5 (13.9%)	0.66
	M	215 (89.6%)	4.78	4.8		242.3	160		86 (94.5%)		31 (86.1%)	
Obstetrics and Gynecology	F	509 (76.5%)	4.82	4.9	0.32	214	149	0.43	257 (79.3%)	0.12	53 (79.1%)	0.71
	M	156 (23.5%)	4.81	4.8		224.1	159.5		67 (20.7%)		14 (20.9%)	
Ophthalmology	F	152 (44.8%)	4.8	4.8	0.53	519.4	335.5	0.09	45 (47.9%)	0.57	38 (44.2%)	0.99
	M	187 (55.2%)	4.79	4.8		635.3	425		49 (52.1%)		48 (55.8%)	
Orthopedic Surgery	F	101 (15%)	4.8	4.8	0.76	295.7	245	< 0.01*	40 (14.8%)	1.00	9 (13.2%)	0.81
	M	574 (85%)	4.8	4.8		421.5	308.5		230 (85.2%)		59 (86.8%)	
Otolaryngology	F	81 (23.9%)	4.82	4.8	0.70	297.3	194	0.04*	37 (23.9%)	1.00	15 (21.7%)	0.75
	M	258 (76.1%)	4.81	4.8		358.5	261		118 (76.1%)		54 (78.3%)	
Plastic Surgery	F	55 (32.5%)	4.8	4.8	0.13	132.4	105	0.06	21 (25.6%)	0.09	4 (23.5%)	0.59
	M	114 (67.5%)	4.83	4.9		178.7	144		61 (74.4%)		13 (76.5%)	
Vascular Surgery	F	7 (31.8%)	4.84	4.9	0.79	94.6	81	0.06	4 (36.4%)	1.00	3 (27.3%)	1.00
	M	15 (68.2%)	4.85	4.8		167.6	156		7 (63.6%)		8 (72.7%)	

Mini-Podium Session 3: Prostate Cancer

WED-CS3-1515

Risks of Prostate Cancer Recurrence and Cardiovascular Events in Patients with or without Testosterone Replacement Therapy: A TriNetX Review

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ABSTRACT: Introduction and Objective: The initiation of testosterone replacement therapy (TRT) in men with previously treated prostate cancer (PCa) is controversial. There are few reproducible studies that detail the risk of recurrence or cardiovascular (CV) events in the setting of TRT. We sought to discern the risk difference of PCa recurrence and CV events in men previously treated for PCa who started TRT versus those who did not. **Methods:** We queried TriNetX, a global database consortium, for adult males with a diagnosis of PCa. We stratified patients by initiation of (TRT group) or omission of TRT (No TRT group) after PCa diagnosis. Propensity score matching factors included disease stage and Gleason score, as well as cardiometabolic diseases, including diabetes, hypertension, hyperlipidemia, atrial arrythmias, cerebrovascular accidents, deep venous thrombosis, pulmonary embolism, and myocardial infarction (MI). The groups were then analyzed for risk of PCa recurrence and CV events after treatment (Table 1). **Results:** The TRT group had a 32% increased risk of recurrence compared to the No TRT group [risk ratio: 0.689, 95% CI (0.603,0.763)], as well as significantly increased risk of acute kidney injury and cerebrovascular accident. Contrastingly, the No TRT group had significantly increased risk of MI and atrial arrythmias. Table 1 shows the risk, risk ratio, and associated statistics for each primary outcome. **Conclusions:** Our results show significantly increased risk of recurrence of PCa in patients who receive TRT. However, results also show that TRT may have a slight protective effect against cardiac events and dysrhythmias. The decision to initiate TRT should carefully consider patient risk factors and disease status. Future studies should be designed proactively to monitor patients on TRT for recurrence and CV events.

Table 1: Risk of various primary outcomes in no TRT versus TRT groups. All significant values are highlighted in blue.

End Point (ICD-10)	Risk No TRT I TRT		Risk Ratio	95% CI	*p*-Value
Atrial fibrillation/Atrial flutter (I48)	10.531%	9.161%	1.15	1.053,1.255	0.0018
Acute Kidney Injury (N17)	14.022%	15.354%	0.913	0.86,0.97	0.0030
Pulmonary Embolism (I26)	2.404%	2.419%	0.994	0.862,1.146	0.9330
Myocardial Infarction (I21)	5.536%	4.25%	1.303	1.155,1.469	<0.0001
Personal History of Transient Ischemic Attack and Cerebral Infarction without Residual Deficits (Z86.73)	4.798%	5.958%	0.805	0.726,0.894	<0.0001
Cardiovascular Cumulative	21.145%	20.36%	1.039	0.97,1.112	0.2795
Rising PSA following treatment for malignant neoplasm of prostate (R97.21)	3.191%	4.635%	0.689	0.603,0.763	<0.0001

WED-CS3-1520

Tolinapant Enhances Cytotoxic Effects of Docetaxel in Human Prostate Cancer Cells

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ABSTRACT: Introduction and Objective: Second mitochondrial-derived activator of caspases (SMAC) mimetics, antagonists of inhibitors of apoptosis proteins (IAPs), have been shown to reverse resistance to apoptosis in various liquid and solid malignancies when used in combination with various chemotherapeutic and immunologic agents. We investigated if the novel oral SMAC mimetic, tolinapant, resulted in greater cell death when used in combination with docetaxel in prostate cancer cell lines. **Methods:** PC3, DU-154, and LNCaP cell lines were used to assess drug toxicity profiles of docetaxel single-agent therapy, tolinapant single-agent therapy, and docetaxel plus tolinapant combination therapy. Using previously validated IC50 values for each cell line, dosing curves were generated for docetaxel and tolinapant monotherapy. A concentration producing a survival rate of 65% or more was selected for combination therapy. Each cell line was then treated with combination therapy. This was repeated in triplicate. Cell death was qualitatively assessed using crystal violet staining and quantitatively assessed using ImageJ. **Results:** The dosing curves of docetaxel in PC3, DU-145, and LNCaP demonstrated dose-dependent cell toxicity, with cell survival rates of 84.4% at 6 nM, 77.2% at 5 nM, and 65.8% at 1.5 nM, respectively. The dosing curves of tolinapant in PC3, DU-145, and LN-CaP demonstrated minimal to no cell toxicity with rates of >100%, 96.4%, and 100.2% respectively at 1 μM. The PC3 and DU-145 cell lines showed a significant decrease in cell survival with combination therapy compared to control, and the LNCaP cell line trended toward significance (Fig. 1). **Conclusions:** Tolinapant significantly enhances the cytotoxicity of docetaxel in a panel of prostate cancer cell lines. Further investigation is needed to determine the difference in synergy between cell lines and further characterize the potentiation of apoptosis by tolinapant.

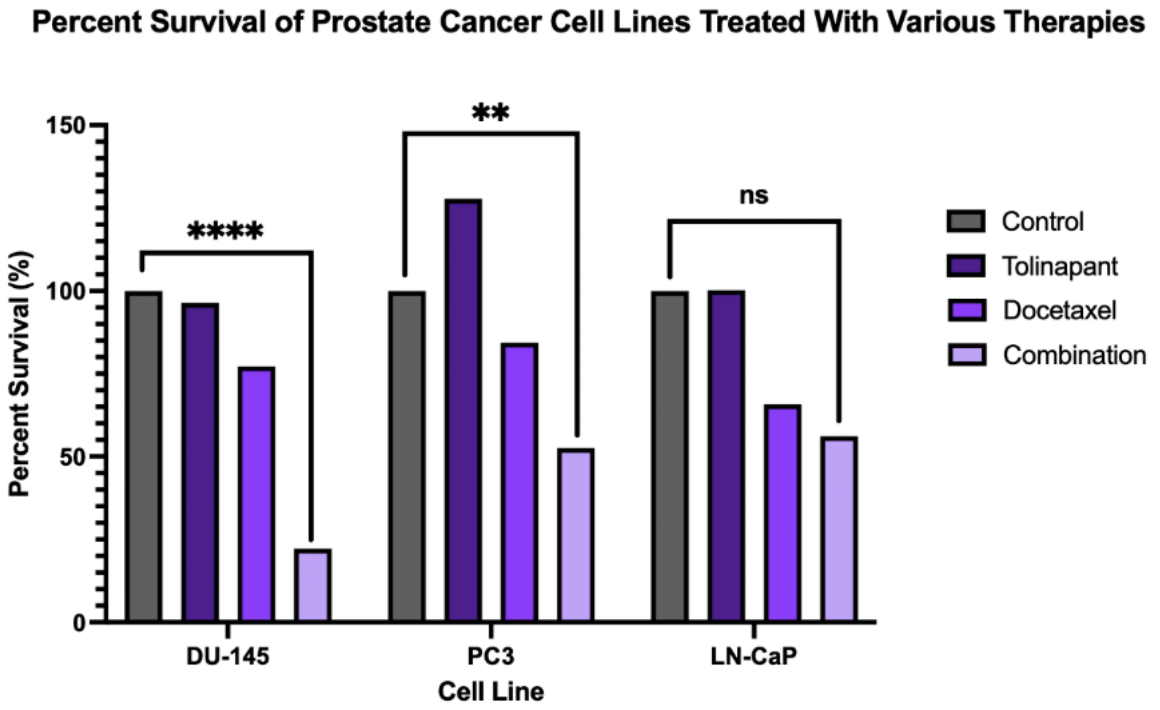


Figure 1: Percent survival of prostate cancer cell lines treated with various therapies. Both control and combination treatment groups are an average representative of triplicate data. Both tolinapant and docetaxel treatment groups are representative of a single data point (DU-145 tolinapant: 1 μM, docetaxel: 5 nM; PC3 tolinapant: 1 μM, docetaxel: 6 nM; LNCaP tolinapant: 1 μM, docetaxel: 1.5 nM). Direct comparison of control to combination therapy showed a significant difference between non-treatment and combination treatment in

DU-145 (p-value: <0.0001) and PC3 cell lines (p-value: 0.0062), and no significant difference between non-treatment and combination treatment in the LNCaP cell line (p-value = 0.0511). * = Statistical significance.

WED-CS3-1525

Comparison of Outcomes and Prostate Cancer Diagnosis in Freehand Transperineal vs. Transrectal Prostate Biopsy in the VA Patient Population

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ABSTRACT: Introduction and Objective: Mixed findings exist regarding infectious risk from freehand transperineal (TP) prostate biopsy versus the transrectal (TR) approach. This approach may be of benefit in the high-risk VA patient population. This project aims to compare rates of complications and prostate cancer detection rates utilizing TP versus TR prostate biopsy in a high-risk VA patient population. **Methods:** This was an IRB-approved, retrospective cohort study of patients at Baltimore VA Medical Center who underwent at least one prostate biopsy between 2020–2025, examining rates of infectious outcomes (fever, urinary tract infection, prostatitis, epididymo-orchitis, bacteremia, and sepsis), non-infectious outcomes (urinary retention, bleeding requiring intervention, vasovagal event, and mortality), and diagnosis of clinically-significant prostate cancer (CSPCa) and prostate cancer (PCa) associated with TP vs. TR prostate biopsy. **Results:** 573 patients underwent 729 prostate biopsies (359 TP, 370 TR). There was no significant difference in composite infectious complications in TP vs. TR (2.8% vs. 4.1%, $p = 0.4$), although there was a significantly higher incidence of prostatitis in TR (0% vs. 1.6%, $p = 0.004$). Rates of sepsis were found to be similar (0.6% vs. 1.1%, $p = 0.7$). Composite non-infectious complication rates were also similar (3.9% vs. 2.4%, $p = 0.3$). Systematic TP was demonstrated to be superior to systematic TR in the detection of both CSPCa (31.8% vs. 24.3%, $p = 0.03$) and PCa (54.3% vs. 45.1%, $p = 0.01$). A multivariate analysis controlling for age and PSA was performed and demonstrated that biopsy type (TP vs. TR) was a significant independent predictor of CSPCa ($p = 0.007$) and PCa ($p = 0.005$) detection. **Conclusions:** This study demonstrates that TP vs. TR prostate biopsy results in comparable infectious and non-infectious outcomes, while systematic TP detected a significantly higher proportion of both CSPCa and PCa in a VA patient population. Further studies are needed to fully examine this relationship.

WED-CS3-1530

Temportal Trends in Genitourinary Cancers

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ABSTRACT: Introduction and Objective: Genitourinary (GU) cancers—including prostate, bladder, kidney, testicular, and penile malignancies—represent a major portion of the global cancer burden. Although incidence and mortality trends are well described, temporal trends in clinical presentation, stage distribution, and survival, along with age at diagnosis remain incompletely characterized. **Methods:** Using the National Cancer Database (NCDB), we identified 3,913,802 patients diagnosed with prostate ($n = 2,176,432$), bladder ($n = 831,303$), kidney ($n = 724,922$), testicular ($n = 102,815$), and penile ($n = 20,893$) cancers from 2004–2021. Pearson correlation assessed changes in age at diagnosis over time. Multinomial logistic regression examined associations between year of diagnosis and clinical T, N, and M stage at presentation. Kaplan–Meier survival analysis with log-rank testing estimated 5- and 10-year overall survival across diagnosis years. **Results:** Age at diagnosis increased significantly across all malignancies (prostate r = 0.081; bladder r = 0.040; kidney r = 0.022; testicular r = 0.015; penile r = 0.052; all $p < 0.05$). Odds of advanced-stage disease increased over time, including prostate T4 OR 2.05 and M1 OR 1.07; bladder T4 OR 1.01 and M1 OR 1.05; kidney T4 OR 2.06; penile T4 OR 1.48 and M1 OR 1.05; and testicular T4 OR 2.97 and M1 OR 1.08. Five-year survival was 86.1% for prostate, 40.7% for bladder, 69.9% for kidney, 60.2% for penile, and 93.5% for testicular cancers. Ten-year survival was 72.4%, 40.6%, 54.2%, 42.9%, and 90.4%, respectively. Survival for prostate, bladder, penile,

and testicular cancers remained stable over time. Kidney cancer demonstrated progressive improvement, with 5-year survival increasing from 63.2% to 71.9% and 10-year survival from 47.9% to 55.1%. **Conclusions:** From 2004–2021, GU cancers in the United States increasingly presented in older patients and at more advanced stages. These findings challenge perceptions of earlier onset and may reflect evolving screening practices and healthcare utilization patterns during the study period. Persistent stage migration and uneven survival gains highlight the need for improved early detection strategies, biomarker development, and equitable access to care.

WED-CS3-1535

Trends in Age, Stage at Diagnosis, and Survival in Prostate Cancer: A National Cancer Database Study (2004–2021)

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ABSTRACT: Introduction and Objective: Prostate cancer is the most frequently diagnosed genitourinary malignancy in the United States. While incidence and mortality trends are well described, temporal changes in age at diagnosis, stage distribution, and stage-specific survival remain incompletely characterized. **Methods:** Using the National Cancer Database (NCDB), we analyzed 2,176,432 patients diagnosed with prostate cancer between 2004 and 2021. Temporal trends in age at diagnosis were evaluated using Pearson correlation. Multinomial logistic regression assessed associations between year of diagnosis and clinical T, N, and M stage. Temporal trends in stage distribution were evaluated using yearly proportions of clinical T, N, and M stages. Kaplan–Meier analysis estimated overall survival by year of diagnosis and stage group. **Results:** Age at diagnosis increased significantly over time (r = 0.081, 95% CI 0.079–0.082; $p < 0.05$) with a median age of 66 years. Later diagnosis years were associated with higher odds of advanced stage disease, including T2 (OR 1.03), T3 (OR 1.04), and T4 (OR 2.05) compared with T1. Node-positive disease increased (OR 1.11), as did metastatic disease (M1 OR 1.07). Stage distribution analysis demonstrated declining T1 disease with increasing proportions of higher-stage tumors, particularly T3 and T4, consistent with progressive stage migration over time. Survival differed substantially between localized and advanced disease, with 5-year survival of 90.4% for N0M0 disease compared with 32.1% for N + M+ disease. Overall survival remained stable across diagnosis years, with 5-year survival of 86.1% and 10-year survival of 72.4%. **Conclusions:** Prostate cancer diagnoses from 2004–2021 increasingly occurred at older ages and with more advanced stages, with declining T1 disease and rising proportions of T3–T4 tumors. Because nodal and metastatic disease were associated with substantially worse survival, these trends raise concern for delayed detection. Occurring during an era in which major guidelines discouraged routine PSA screening, these findings highlight the need to reassess screening strategies that preserve early detection while minimizing overtreatment.

WED-CS3-1540

The Impact of Site of Metastasis on Efficacy of Definitive Radiotherapy along with Androgen Deprivation Therapy in Metastatic Prostate Cancer: An NCDB Analysis

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ABSTRACT: Introduction and Objective: Prostate cancer is the second leading cause of cancer death among men in the US. The current standard of care for metastatic hormone-sensitive prostate cancer is Androgen Deprivation Therapy (ADT). The role of prostate radiotherapy in low metastatic burden population has been well-established in randomized control trials in Europe but has not been extensively studied in American cohorts. Prostate cancer screening and management differs dramatically between U.S. and European prostate cancer cohorts. Outcomes based on metastatic sites cM1a, cM1b, cM1c has also not been documented. Using the National Cancer Database (NCDB), the present study examines the survival outcomes of adding prostate radiotherapy to ADT stratified by site of

metastasis in an American cohort. **Methods:** The NCDB was queried from 2004 to 2022; individuals with metastatic prostate cancer (cT1-4, N0-1, M1a-c) were identified. Following propensity score matching (PSM) for treatment groups, overall survival (OS) was assessed with Cox Proportional Hazards Model and the Kaplan-Meier Method. **Results:** A total of n = 18,632 men had cM1 prostate cancer. Prior to PSM, patients treated with XRT were more often white (81.0% vs. 77.0%), without comorbidities (82.9% vs. 78.4%), and higher cT (cT4; 17.8% vs. 14.1%) (all $p < 0.001$). Baseline characteristics were well balanced after PSM, resulting in 2802 cM1. Median follow-up was 37 months. Among patients cohorts, addition of XRT to ADT was associated with improved OS in cM1 (HR 0.74, 95%CI 0.68–0.82, $p < 0.001$), in cM1a (HR 0.45, 95%CI 0.30–0.67, $p < 0.001$), in cM1b (HR 0.78, 95%CI 0.70–0.87, $p < 0.001$), and in cM1c (HR 0.89, 95%CI 0.67–1.17, $p = 0.39$). **Conclusions:** Prostate radiotherapy was associated with improved overall survival in cM1a, cM1b but not cM1c visceral metastases cohort. This is consistent with previous data suggesting limited benefits of radiotherapy in visceral metastases patients and support the selective use of adjunct radiotherapy in non-regional lymph node metastases (cM1a) and bone metastases (cM1b).

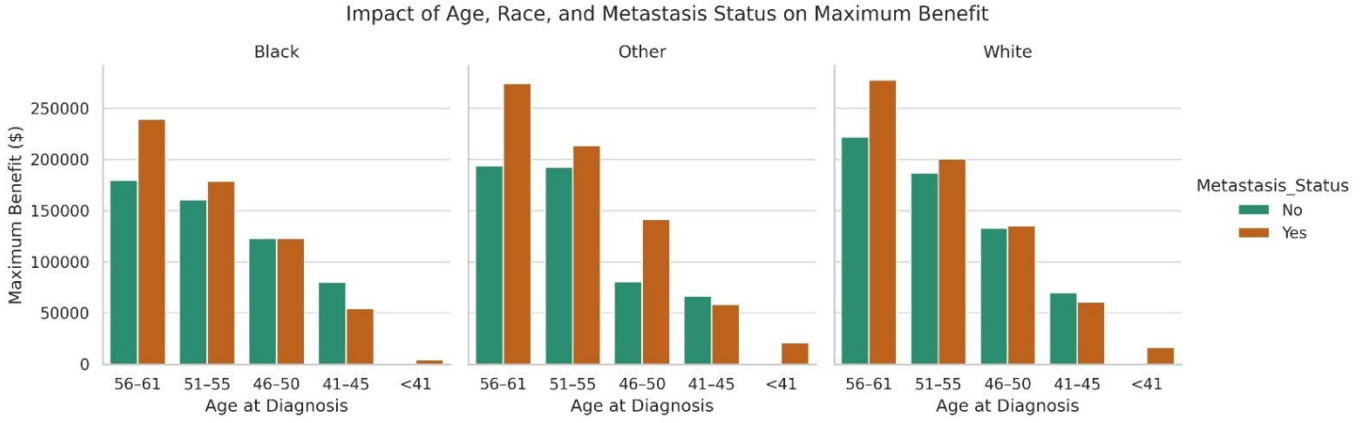
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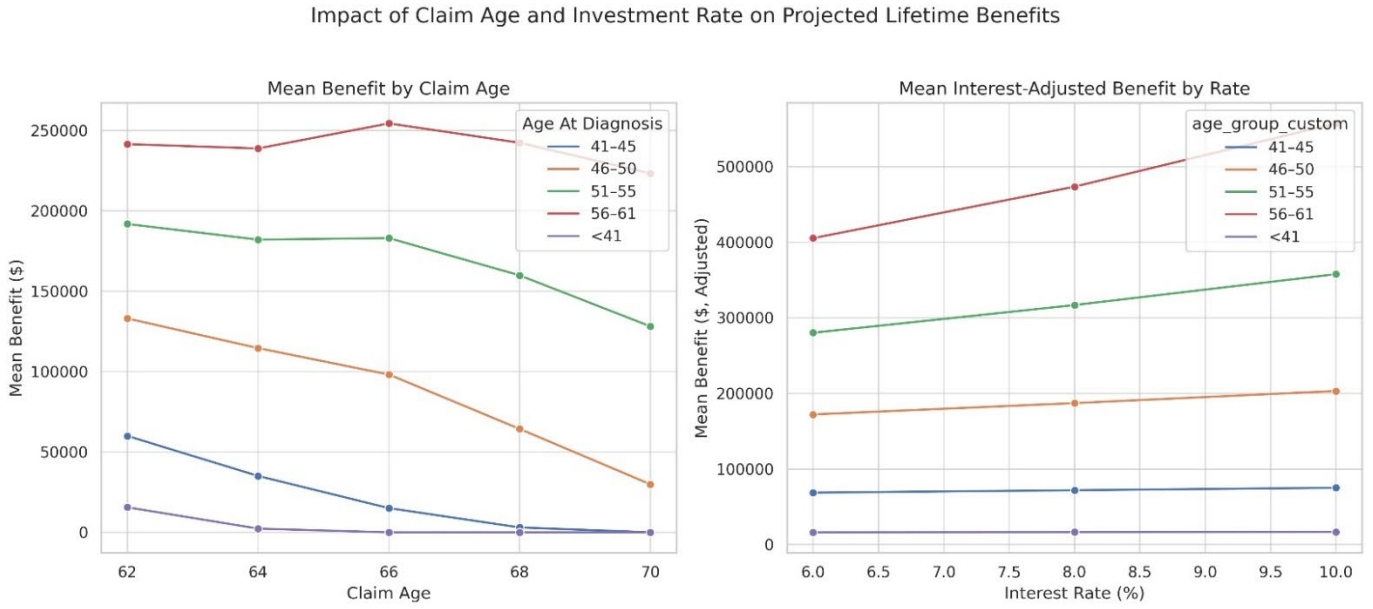
Population-Based Modeling of Optimal Social Security Claiming Age in Men with Newly Diagnosed Prostate Cancer Using the Surveillance, Epidemiology, and End Results (SEER) Program

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ABSTRACT: Introduction and Objective: Social Security retirement benefit claiming between ages 62 and 70 results in permanent differences in monthly payments and depends on life expectancy. Men with newly diagnosed prostate cancer have variable survival based on age, metastatic status, and race, yet the impact of these differences on optimal claiming strategies remains unclear. **Objective:** To model lifetime and investment-adjusted Social Security benefits by claiming age among men with newly diagnosed prostate cancer using the SEER Program database. **Methods:** We performed a retrospective cohort study of 15,000 men aged 50–90 years with prostate cancer. Patients who died before age 62 were excluded. Diagnosis age was stratified (41–45, 46–50, 51–55, 56–61 years). Race (White, Black, Other) and metastatic status at diagnosis were recorded. Total lifetime Social Security retirement benefits were calculated for claiming ages 62, 64, 66, 68, and 70 using Social Security Administration schedules. Investment-adjusted future value was modeled assuming annual returns of 6%, 8%, and 10%. **Results:** Claiming at age 62 maximized cumulative benefits across diagnosis-age groups, metastatic status, and racial strata (Fig. 1). Men with metastatic disease and Black patients derived the greatest relative benefit from early claiming, reflecting shorter survival. In older, non-metastatic groups, delaying to age 66 modestly increased nominal benefits. When incorporating reinvestment assumptions (6–10% annual return), early claiming consistently produced the highest projected future value across all strata (Fig. 2). **Conclusions:** Survival duration, rather than delayed retirement credits, primarily determines optimal claiming strategy. Early claiming maximized projected financial value across most clinical subgroups, particularly in higher-risk populations.





WED-CS3-1550

Characterizing Young-Onset Prostate Cancer at an Urban Academic Cancer Center

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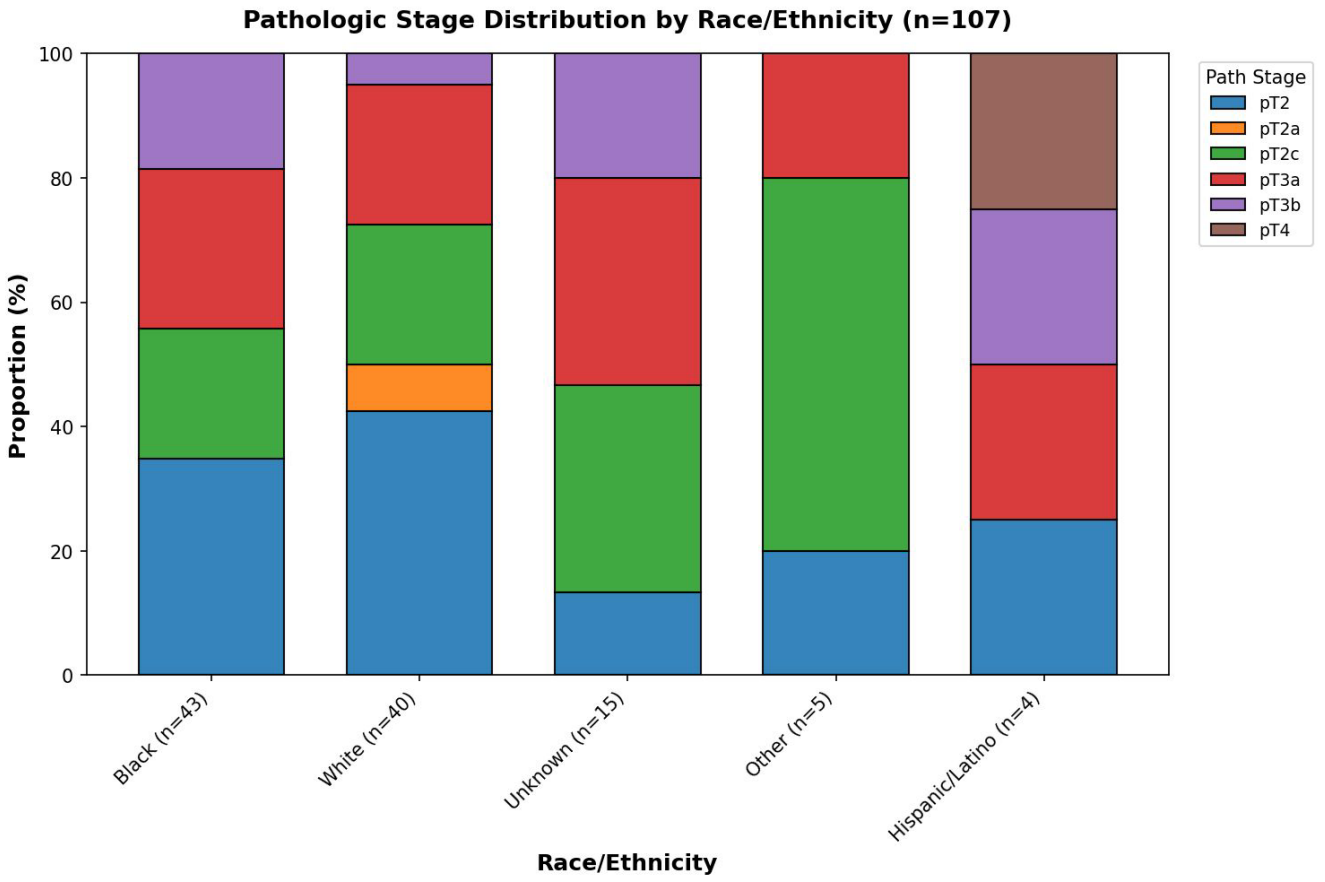
[1]George Washington University School of Medicine, Washington D.C., Washington, DC, USA; [2]George Washington University Hospital, Washington, DC, USA

ABSTRACT: Introduction and Objective: Although prostate cancer traditionally affects older men, the global incidence among men aged ≤55 years has increased over the last decade. This study evaluates the clinical and pathological features of men aged ≤55 years diagnosed with prostate cancer at George Washington University Hospital (GWUH), with a focus on racial differences in stage, pathology, and recurrence. **Methods:** A retrospective study was performed of patients ≤55 years diagnosed with prostate cancer between January 2016 and March 2025 at GWUH. Differences in clinical stage, pathological stage, and Gleason grade were assessed using Pearson's chi-square test. Associations between race and recurrence were assessed using Fisher's exact test due to small counts. **Results:** A total of 187 patients were identified. Black patients presented more frequently with advanced clinical stage (6.2% vs. 1.7%) and, among those who underwent radical prostatectomy, higher rates of extraprostatic extension (44.7% vs. 28.1%) compared to White patients. However, these results were not statistically significant. Black patients were more likely to present with higher clinical Gleason grade (χ^2 = 9.052, p = 0.029) and had higher recurrence rates (p = 0.0035) compared to White patients, with nearly a fourfold higher risk of recurrence. **Conclusions:** At GWUH, men ≤55 years with prostate cancer most often presented with localized stage and pathology. Racial disparities were observed within Gleason grade and recurrence rates, with Black men nearly four times as likely to experience recurrence. These findings highlight the need for targeted screening and improved post-treatment surveillance in high-risk populations. Future studies should assess factors contributing to racial disparities.

Pathology & Gleason Score Prevalence by Race/Ethnicity

Feature	Black	White	Hispanic/Latino	Other	Unknown
N (total)	81	58	6	9	33
Clinical Gleason (all patients)	-	-	-	-	-
3+3	18 (24.7%)	22 (48.9%)	1 (20.0%)	5 (71.4%)	12 (50.0%)
3+4	25 (34.2%)	13 (28.9%)	2 (40.0%)	2 (28.6%)	5 (20.8%)
4+3	15 (20.5%)	8 (17.8%)	1 (20.0%)	0 (0.0%)	2 (8.3%)
≥8	13 (17.8%)	2 (4.4%)	1 (20.0%)	0 (0.0%)	5 (20.8%)
Pathological Gleason (surgical patients)	-	-	-	-	-
3+3	2/40 (5.0%)	4/34 (11.8%)	0/4 (0.0%)	1/3 (33.3%)	1/11 (9.1%)
3+4	20/40 (50.0%)	23/34 (67.6%)	1/4 (25.0%)	2/3 (66.7%)	6/11 (54.5%)
4+3	9/40 (22.5%)	6/34 (17.6%)	2/4 (50.0%)	0/3 (0.0%)	3/11 (27.3%)
≥8	7/40 (17.5%)	1/34 (2.9%)	1/4 (25.0%)	0/3 (0.0%)	1/11 (9.1%)
Pathology (surgical patients)	-	-	-	-	-
EPE (extraprostatic extension)*	17/38 (44.7%)	9/32 (28.1%)	3/4 (75.0%)	0/2 (0.0%)	7/9 (77.8%)
SVI (seminal vesicle invasion)*	9/38 (23.7%)	1/32 (3.1%)	2/4 (50.0%)	0/2 (0.0%)	3/9 (33.3%)
PNI (perineural invasion)*	36/38 (94.7%)	28/29 (96.6%)	2/2 (100.0%)	2/2 (100.0%)	9/9 (100.0%)
Intraductal carcinoma*	3/27 (11.1%)	2/21 (9.5%)	0/1 (0.0%)	0/2 (0.0%)	0/4 (0.0%)
Cribriform patterns*	4/7 (57.1%)	3/3 (100.0%)	1/1 (100.0%)	-	0/1 (0.0%)
Biochemical recurrence rate (all patients)	22 (27.2%)	4 (6.9%)	3 (50.0%)	1 (11.1%)	1 (3.0%)
Salvage therapy (all patients)	13 (16.0%)	2 (3.4%)	3 (50.0%)	1 (11.1%)	1 (3.0%)

*EPE, SVI, PNI, intraductal carcinoma, cribriform: among surgical patients with assessable pathology



WED-CS3-1555

A Comparison of Prostate Cancer Active Surveillance Trends between Academic and Non-Academic Centers: A TriNetX Analysis

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ABSTRACT: Introduction and Objective: Active surveillance (AS) is a widely accepted treatment option for low-risk prostate cancer (PCa) that is utilized to prevent overtreatment. We compared AS rates at academic and non-academic centers to analyze differences in treatment approaches for PCa. **Methods:** We queried TriNetX, a global healthcare data repository, to identify patients diagnosed with PCa between 2015–2024. Patients were stratified by center type (academic vs. non-academic) and treatment modality (AS vs. surgery or radiation). The AS groups underwent MRI or biopsy within 6 months of PCa diagnosis and did not undergo radiation or prostatectomy, and the surgery/radiation (Surgery/XRT) groups underwent treatment within 6 months of first instance of PCa. Descriptive statistics and statistical analyses were performed. **Results:** The TriNetX queries produced 266,911 patients diagnosed with PCa and treated with AS or Surgery/XRT between 2015–2024. AS trends by center type are depicted in Fig. 1. At the beginning of the study period, academic centers had increased odds of AS compared to non-academic centers (OR 1.37, $p < 0.001$). Academic centers demonstrated increasing adoption of AS, with the annual change in odds approximately 2% greater than that observed at non-academic centers (interaction OR 1.02 per year, $p < 0.001$). A sub-analysis was conducted based on Gleason scores, specifically Gleason 6, 7, and 6&7 combined, the results of which are shown in Fig. 2. **Conclusions:** Rates of active surveillance differ significantly between academic and non-academic centers, emphasizing the contrast in PCa treatment paradigms based on practice type. This study suggests possible disparities in PCa treatment depending on center type.

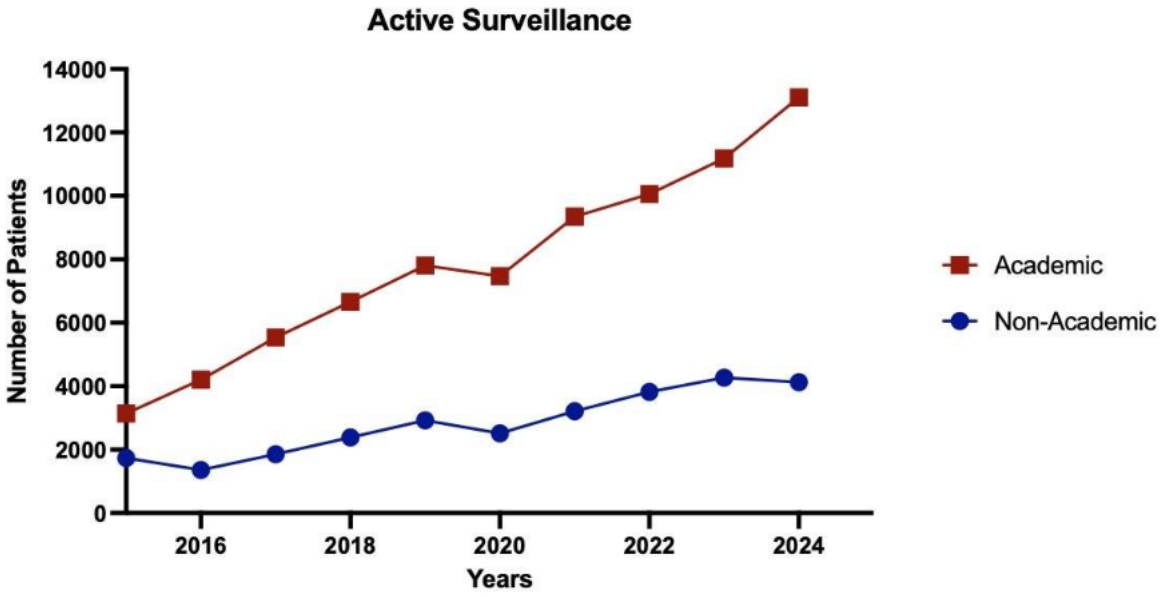


Fig. 1

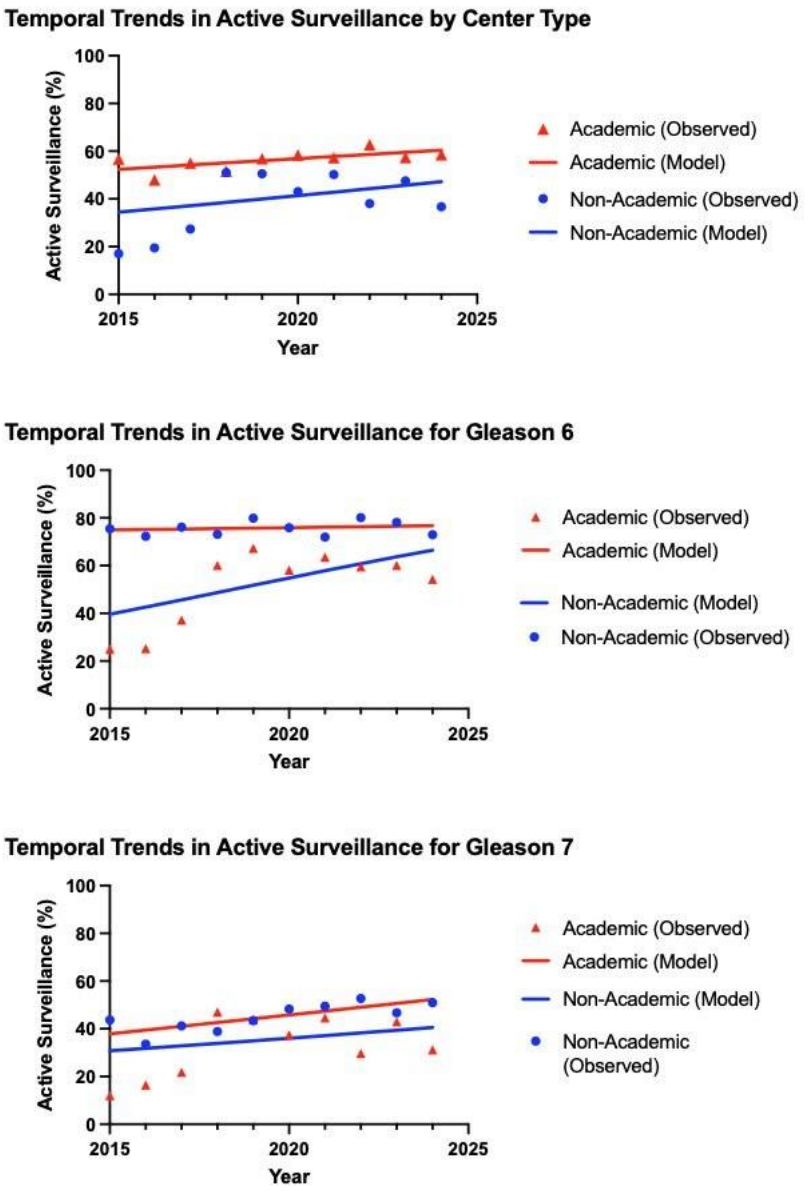


Figure 2: Temporal trends in active surveillance use by center type, stratified by disease risk. (**A**) Combined Gleason 6 and 7 disease. (**B**) Gleason 6 disease. (**C**) Gleason 7 disease. Points represent observed yearly proportions, and lines represent model-predicted probabilities from grouped binomial logistic regressions.

WED-CS3-1600

The Use of Rectal Spacers with Radiation Therapy in Prostate Cancer Patients: A TriNetX Analysis

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ABSTRACT: Introduction and Objective: Rectal spacers are often placed in patients with prostate cancer (PCa) who undergo radiation in order to reduce radiation exposure to the rectum. We aimed to compare the risk of gastrointestinal (GI) complications after radiation in patients with and without rectal spacers. **Methods:** We queried TriNetX, a global healthcare data repository, to identify patients

diagnosed with PCa who were treated with radiation and had no previous GI diagnoses (inflammatory bowel disease or irritable bowel syndrome). Patients were stratified by placement or omission of a rectal spacer prior to radiation treatment. Propensity score matching factors included age, stage of PCa, and PSA. The groups were analyzed for gastrointestinal complications after radiation treatment. Descriptive statistics and statistical analyses were performed. **Results:** After propensity score matching, there were a total of 13,912 patients included in each group. Patients without spacers were associated with a higher risk of hematochezia (5.9% vs. 3.1%) and radiation proctitis (17.2% vs. 10.9%) when compared with those with a spacer [RR 1.879, 95% CI (1.673, 2.110); RR 1.583, 95% CI (1.484, 1.688), respectively]. The risk of fistula is uncommon for patients with (0.42%) or without rectal spacers (0.58%) [RR 1.398, 95% CI (0.998–1.956)]. Additionally, patients with spacers had a lower risk of pelvic and perineal pain (1.2% vs. 2.3%) and diarrhea (5.4% vs. 9.5%) compared to patients without a rectal spacer [RR 1.903, 95% CI (1.579, 2.293); RR 1.754, 95% CI (1.604, 1.918), respectively]. **Conclusions:** Our study demonstrates that rectal spacer placement decreases risk of many GI complications associated with prostate irradiation, improving patient safety, outcomes, and quality of life.

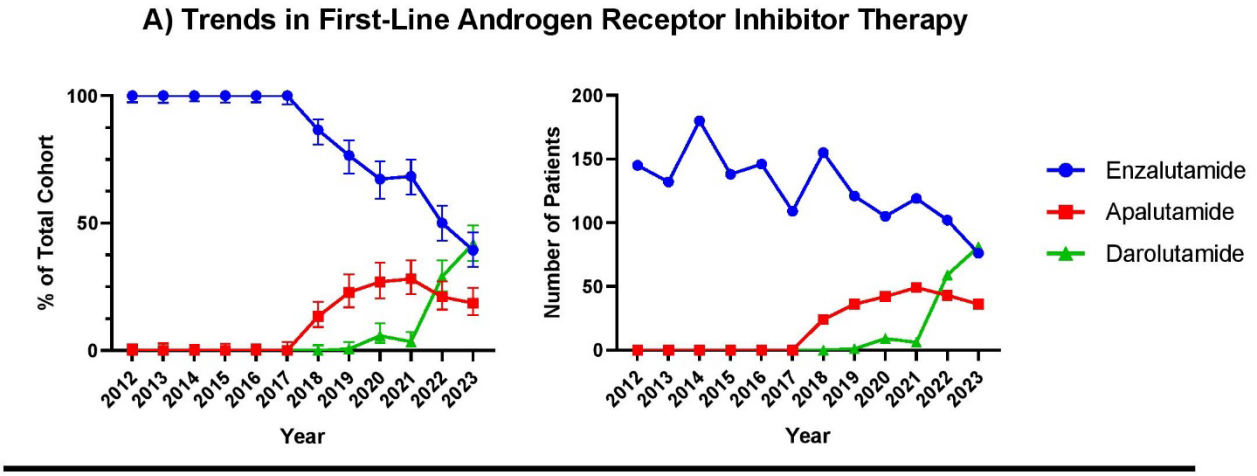
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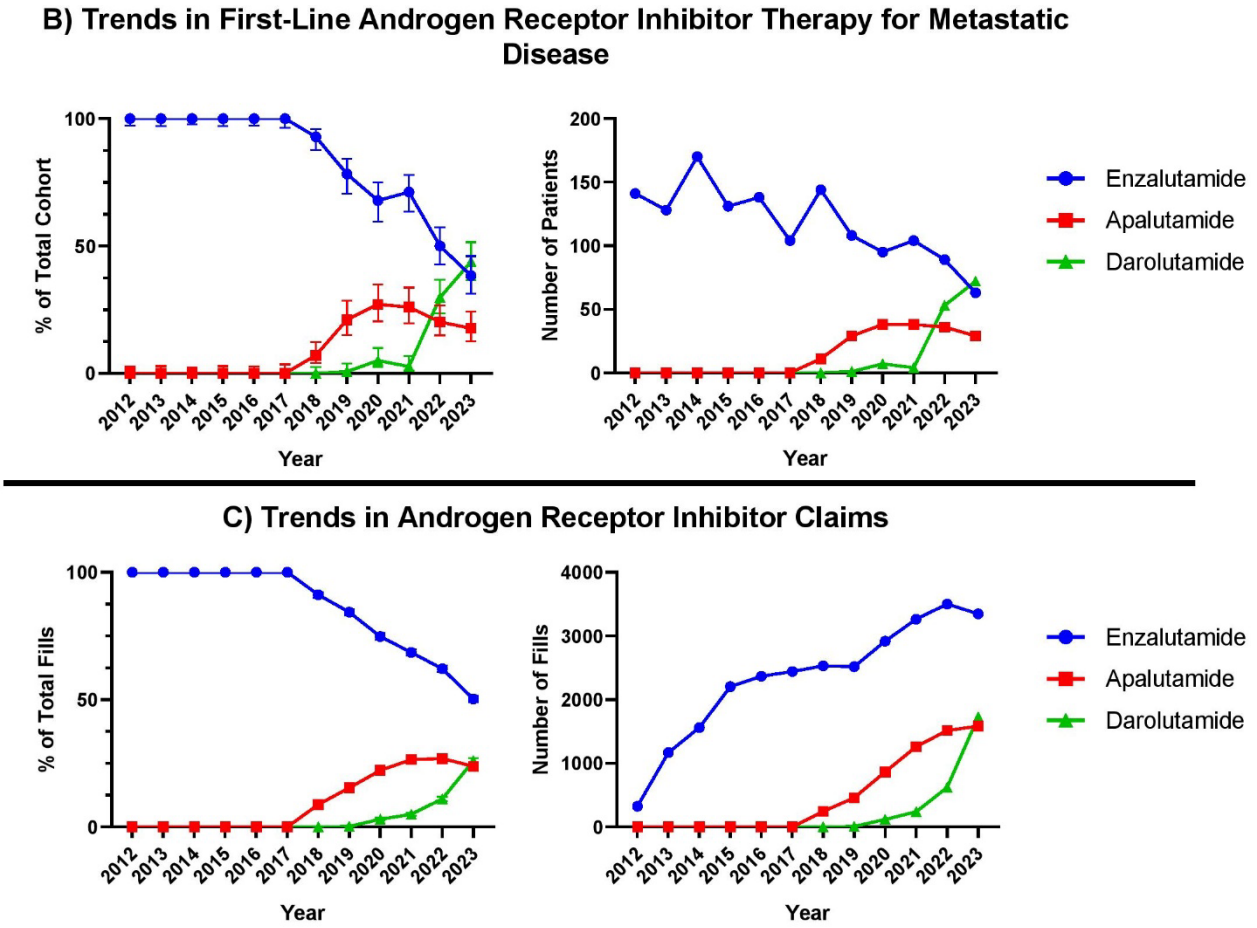
Temporal Trends in Second-Generation Androgen Receptor Inhibitors for Prostate Cancer in the United States

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[1]Johns Hopkins School of Medicine, Baltimore, MD, USA; [2]Georgetown University School of Medicine, Washington, DC, USA

ABSTRACT: Introduction and Objective: Second-generation androgen receptor inhibitors (ARIs) have transformed treatment for patients with advanced prostate cancer. Despite overlapping indications and comparable efficacy among these ARIs, their staggered market entry and differing toxicity profiles may influence real-world prescribing. We characterized temporal trends and utilization patterns of these agents as frontline treatment for advanced prostate cancer in the United States. **Methods:** Using the Merative MarketScan database, we identified patients with prostate cancer receiving enzalutamide, apalutamide, or darolutamide between 2012 and 2023. ARI therapy was classified as first-line if initiated after ≥180 days of continuous enrollment. Annual proportions of first-line initiation and overall utilization of ARIs were assessed descriptively. Within-year comparisons by geographic status, urbanicity, insurance plan, and metastatic status were evaluated with chi-squared testing. **Results:** Among 1.1 million individuals with prostate cancer, 3773 patients received ARI therapy, of whom 1914 met criteria for first-line analysis. Use of first-line darolutamide steadily increased, rising to 42% in 2023 and surpassing enzalutamide (Fig. 1). First-line ARI selection did not differ significantly by region, urbanicity, insurance, or metastatic status. Overall ARI utilization increased 21-fold over the study period, with enzalutamide remaining the most common agent (Fig. 1). In 2023, a higher proportion of darolutamide fills occurred in metropolitan areas (p = 0.0008), and among metastatic patients (p = 0.0058). **Conclusions:** Darolutamide rapidly emerged as the most selected first-line ARI by 2023, reflecting evolving prescribing preferences largely independent of patient demographics. However, continued dominance of enzalutamide for overall fills highlights durability of legacy therapy, particularly among non-metropolitan and non-metastatic populations.





WED-CS3-1610

Lower Urinary Tract Symptom Improvement and Changes in Sexual Function after Irreversible Electroporation for Localized Prostate Cancer: A PRESERVE Trial Analysis

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[1]James Buchanan Brady Urological Institute, Johns Hopkins University School of Medicine, Baltimore, MD, USA; [2]Memorial Sloan Kettering Cancer Center, New York, NY, USA; [3]Brian Moran Cancer Institute, Deuly Health and Care, Hinsdale, IL, USA; [4]Mayo Clinic Department of Urology, Rochester, MN, USA; [5]Fox Chase—Temple Urologic Institute, Philadelphia, PA, USA; [6]University of Cincinnati, Cincinnati, OH, USA

ABSTRACT: Introduction and Objective: Electroporation (IRE) is an ablative technique using electrical pulses to change the permeability of the cell membrane, leading to cell death. This analysis assessed changes in urinary and sexual function from baseline to 12 months after IRE for the treatment of intermediate-risk prostate cancer (PCa) using data from the PRESERVE trial. **Methods:** This prospective, non-randomized, single-arm pivotal trial included patients in the US who met inclusion criteria and were treated with IRE: age > 50 with organ-confined, Gleason 3 + 4 or 4 + 3 PCa, clinical stage ≤ T2c, prostate-specific antigen (PSA) ≤ 15 ng/mL or PSA density <0.15 ng/mL2 if PSA > 15 ng/mL. International Prostate Symptom Score (IPSS), IPSS Quality of Life (IPSS-QoL), and International Index of Erectile Function (IIEF-15) were collected through 12 months. Correlation between change in score and baseline characteristics, and differences in mean change in score by key subgroups, were assessed. **Results:** Prostate size was correlated with change in IPSS score at both 6 and 12 months ($p < 0.05$ and $p < 0.05$, respectively) with an improved trend shown in patients with prostates < 80 cm3 in size. Mean improvement in score at 12 months was larger for patients with anterior (vs posterior) lesions. Median IPSS-QoL improved from a baseline of 2(1–3) to 1 (0–2) at 6 months and 1 (0–2) at 12 months. Of the patients who reported no erectile dysfunction at baseline, at

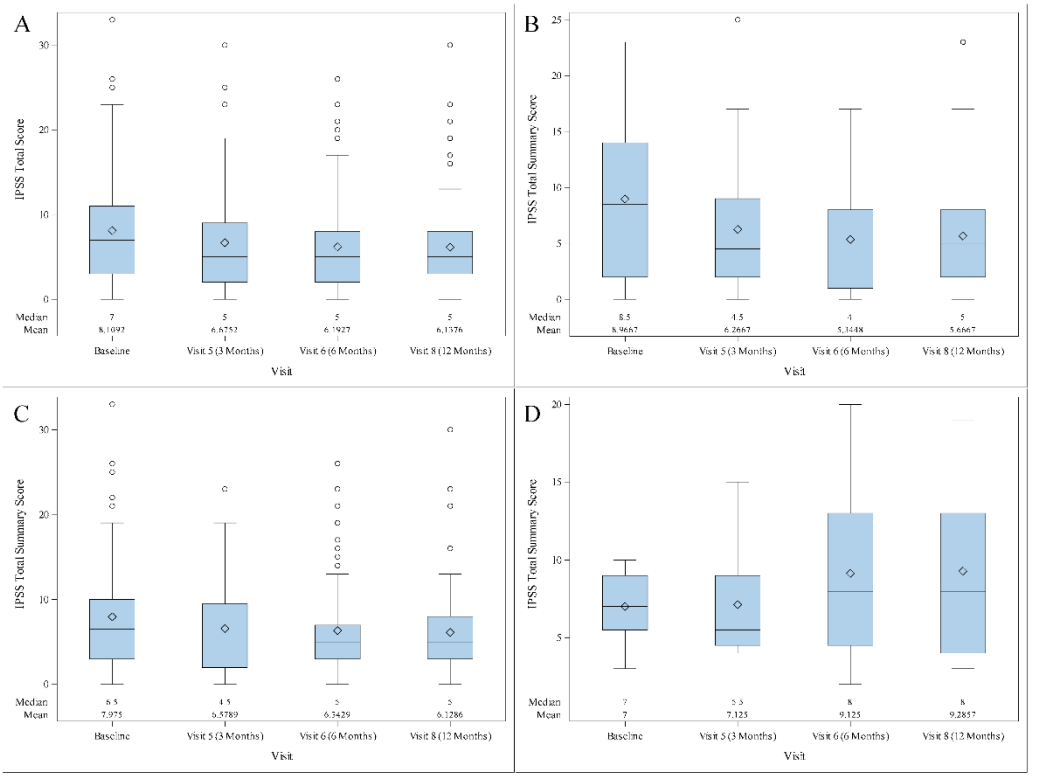
12 months, 76% (29/38) remained free of erectile dysfunction. At 12 months, 72% (55/76) of men who were potent at baseline, maintained potency. **Conclusions:** This study emphasizes factors related to functional recovery after IRE to better support preoperative counseling.

Table 1: IIEF-15 erectile function domain shift table.

	12-Month Visit					
Baseline	None *n* (%)	Mild *n* (%)	Mild-to-Moderate *n* (%)	Moderate *n* (%)	Severe *n* (%)	Total *n* (%)
None	29 (76)	2 (5)	2 (5)	5 (13)	0 (0)	38 (48)
Mild	8 (73)	0 (0)	2 (18)	1 (9)	0 (0)	11 (14)
Mild-to-Moderate	0 (0)	0 (0)	4 (40)	2 (20)	4 (40)	10 (13)
Moderate	2 (14)	0 (0)	1 (7)	6 (43)	5 (36)	14 (18)
Severe	0 (0)	0 (0)	0 (0)	0 (0)	7 (100)	7 (9)
Total	39 (48)	2 (3)	9 (11)	14 (18)	16 (20)	

Categories of erectile dysfunction are based on the following scores:
None = 26–30
Mild = 22–25
Mild-to-Moderate = 17–21
Moderate = 11–16
Severe = 6–10
Note: Those who did not attempt sexual intercourse during the time periods of interest were excluded (scores 1–5).

Figure 1: A) IPSS Total Score from Baseline to 12 Months Overall and B-D) Among Patients with Prostate Size <30 cm^3, 30-79 cm^3, ≥80 cm^3 at Baseline



Mini-Podium Session 4: Pediatrics

THU-CS5-1100

Decision-Making for Newborn Circumcision: Are We Providing Adequate and Appropriate Counseling?

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ABSTRACT: Introduction and Objective: Despite being a medical procedure, counseling on newborn circumcision can be lacking, and parents may be making less informed decisions. Our objectives assessed circumcision plans relative to perceived counseling level, decisional confidence, and explored motivations for/against circumcision. We hypothesized that greater counseling would increase decisional confidence and reduce circumcision rates. **Methods:** We conducted a cross-sectional survey of parents of newborn boys in prenatal clinics and the maternity floor. The survey evaluated demographics, circumcision motivations, perceived prenatal counseling, and decisional confidence using Likert scales. Categorical differences were assessed using chi-square and Fisher's exact tests. Logistic regression estimated unadjusted odds ratios with 95% confidence intervals. **Results:** Among 182 respondents, 140 (76.9%) planned circumcision (Table). No prenatal counseling was reported by 36.0% planning circumcision and 42.9% declining circumcision. Moderate/high counseling was associated with higher odds of planning circumcision than no counseling (OR 3.960, $p = 0.038$). High decisional confidence did not differ by circumcision plan (56.8% planning vs. 43.9% declining, $p = 0.157$) but was more common with moderate/high counseling than none (OR 3.27, $p = 0.015$). Paternal circumcision (OR 77.14, $p < 0.001$), healthcare employment (OR 2.96, $p = 0.016$), and White race (OR 2.27, $p = 0.023$) were associated with higher odds of planning circumcision, while Hispanic ethnicity was associated with lower odds (OR 0.098, $p < 0.001$). **Conclusions:** Our hospital's circumcision rates exceed national averages. Circumcision planning was associated with paternal circumcision, healthcare employment, and White race. Greater prenatal counseling was linked to higher decisional confidence and greater circumcision plans. We wonder if the prenatal counselors are more motivated to encourage circumcision as they provide the service. Given our high rates, we are planning an intervention study to provide balanced counseling on routine circumcision.

Demographics	**Yes Circumcision N = 140 (76.9%)**	**No Circumcision N = 42 (23.1%)**	***p*-Value**
Race/Ethnicity			
White	100 (71.4)	22 (52.4)	
Black	21 (15.0)	0 (0.0)	<0.001
Hispanic	8 (5.7)	16 (38.1)	
Other	11 (7.9)	4 (9.5)	
Region			
Northeast	22 (16.2)	2 (4.8)	
Mid-Atlantic	73 (53.7)	28 (66.7)	0.132
Southeast	31 (22.8)	7 (16.7)	
Other	10 (7.4)	5 (11.9)	
Healthcare worker			
Yes	52 (37.4)	7 (16.7)	0.014
No	87 (62.6)	35 (83.3)	
Father circumcision status			
Yes	135 (97.1)	14 (33.3)	<0.001
No	3 (2.2)	24 (57.1)	
Reasons for or against circumcision			N/A
Religious	32 (22.9)	4 (9.5)	

Cultural	36 (25.7)	7 (16.7)	
Social	62 (44.3)	2 (4.8)	
Hygiene	114 (81.4)	0 (0.0)	
Prior negative experience	10 (7.1)	0 (0.0)	
Medical health benefits	61 (43.6)	2 (4.8)	
Aesthetics	33 (23.6)	1 (2.4)	
Family history	75 (53.6)	15 (35.7)	
Bullying	23 (16.4)	0 (0.0)	
Unnecessary	—	28 (66.7)	
Risk of procedure	—	12 (28.6)	
General counseling			
None	50 (36.0)	18 (42.9)	0.053
Very little/Some	56 (40.3)	21 (50.0)	
Moderate/Substantial	33 (23.7)	3 (7.1)	
Confidence in Decision			
Not at all/very little/some	60 (43.2)	23 (56.1)	0.157
Very/Completely	79 (56.8)	18 (43.9)	

THU-CS5-1105

Effect of Standardized Educational Materials on Parental Circumcision Decision-Making: A Prospective Intervention Study

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ABSTRACT: Introduction and Objective: Parental decisions regarding infant circumcision are often influenced by social norms, religion/culture, and myths that circumcision is more hygienic. At our East Coast hospital, circumcision rates greatly exceed the national average. We also found that a fair number of parents do not receive counseling on routine circumcision. We evaluated whether a standardized educational pamphlet could influence parental circumcision intent, hypothesizing that this information could alter decision-making and improve perceived understanding. **Methods:** We conducted a prospective pre-post intervention study of expectant parents of newborn boys at a single academic institution. Participants completed a baseline survey assessing circumcision intent, then reviewed a standardized educational pamphlet outlining procedural risks, benefits, and professional society guidance. A post-intervention survey evaluated changes in circumcision plan, perceived helpfulness of the pamphlet, and new information learned. Matched responses were analyzed descriptively. **Results:** Eighty-four participants were enrolled, with 47 (56%) completing both surveys. At baseline, 31 (66%) planned circumcision, 13 (28%) declined, and 3 (6%) were unsure. After reviewing the pamphlet, 8 participants (17%) changed their circumcision plan: two to planning circumcision, two to declining circumcision, and four to unsure. Six participants (13%) attributed their decision change to the pamphlet, and two (4%) due to discussions with peers or family. Most participants (87%) rated the pamphlet as helpful, including 29 (62%) rating it very helpful. Thirty-seven (79%) reported learning new information. **Conclusions:** A standardized educational pamphlet was associated with changes in circumcision intent; nearly one-fifth of parents altered their planned decision. Some participants changed their decision after discussions with others, suggesting the information prompted further thought. The majority reported new information was learned, which satisfies our intent to increase evidence-based counseling to parents on decision-making for circumcision.

Outcome Measure	***n*** **(%)**
Circumcision Plan—Pre-Intervention	
Yes	31 (66)
No	13 (28)

Unsure	3 (6)
Circumcision Plan—Post-Intervention	
Yes	32 (68)
No	11 (23)
Unsure	4 (9)
Change in circumcision plan	8 (17)
No → Yes	1
Unsure → Yes	1
Unsure → No	2
Yes → Unsure	1
No → Unsure	3
Decision Influence	
Pamphlet changed decision	6 (13)
Other reason changed decision	2 (4)
No change in decision	39 (83)
Perceived Helpfulness of Pamphlet	
Very helpful	29 (62)
Somewhat helpful	12 (26)
Neutral	3 (6)
Not very helpful	3 (6)
Not helpful at all	0 (0)
Amount of New Information Learned	
Significant amount	10 (21)
Very good amount	13 (28)
Some new information	14 (30)
Slight new information	4 (9)
No new information	6 (13)

THU-CS5-1110

Spinal Anesthesia in Urology for Responsive Pediatric Anesthesia and Satisfaction in Surgery (SuRPaSS): A Novel Pediatric Awake Spinal Anesthetic Program

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ABSTRACT: Introduction and Objective: Risks of general anesthesia are increased in infants below age one. To offer an alternative that circumvents these risks, we sought to develop a pilot program for the use of infant spinal anesthesia (SA) during common urologic procedures. **Methods:** The authors developed and implemented a single-institution multiphase evidence-based quality improvement program at a large tertiary pediatric referral center. Prospective clinical and familial satisfaction data were collected. Two hundred and two males, 24 months or below undergoing non-complex urologic procedures were included. Successful SA was the primary outcome. Secondary outcomes included anesthesia, procedure, and total OR time. In addition to parental satisfaction, post-operative pain mediation usage, and complication rates, both anesthetic and surgical. **Results:** One hundred and sixty-three procedures were attempted under SA. One hundred and forty-three (87.7%) were successful, and 20 (12.7%) were converted to general anesthesia. The most common procedure under SA was circumcision (31%). The median age of successful SA was 6 months (IQR: 4.5–8.5 months). Anesthesia time tended to be shorter in those undergoing spinal anesthesia. Stratified by anesthesia type, procedure times only significantly differed for

hypospadias repair (SA 72.0 min vs. GA 126 min, $p = 0.001$). Guardians whose children underwent SA were the most satisfied with a median satisfaction of 4.60/5 [IQR 4.25–4.90]. Acute complications remained low (2.4%) and were all transient. **Conclusions:** Pediatric urologic procedures can be safely completed under SA. Familial satisfaction with SA is high. Implementation of a successful pediatric SA program requires a multidisciplinary team.

THU-CS5-1115

A Population Based Analysis of Autism Spectrum Disorder and Lower Urinary Tract Symptoms in Pediatric Patients

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ABSTRACT: Introduction and Objective: Literature suggests that individuals with autism spectrum disorder (ASD) are at an increased risk of lower urinary tract symptoms (LUTS). There is a scarcity of adult and pediatric urologic literature that explores this relationship. The most current research is psychiatry-based. This study aims to explore the prevalence and odds of LUTS in children with ASD compared to neurotypical peers. **Methods:** We utilized TriNetX, a de-identified research network of 112 healthcare organizations. Patients ≤ 18 years old with ASD were identified via ICD-10 codes. Those with diagnosis of cerebral palsy, spina bifida, attention deficit hyperactivity disorder, neurogenic bladder, and congenital urinary tract anomalies were excluded. A control group of neurotypical patients was identified using CPT codes from pediatric visits. Patients were matched on sex, race, current age, age at index diagnosis, BMI, and constipation. The presence of LUTS was the primary outcome of interest. All statistics were run within TriNetX. **Results:** ASD and neurotypical cohorts included 358,705 and 2,643,247 patients, respectively. After propensity score matching, there were 355,827 patients in each arm. Median follow-up was 440 (ASD) and 793 days (neurotypical). The 1 and 5-year prevalence rates, stratified by age, of LUTS in the ASD cohort were 2.28% and 4.39% (ages 5–9) and 1.34% and 3.08% (ages 10–14), respectively. When compared to matched neurotypical peers, those in the ASD had increased odds of being diagnosed with LUTS (OR = 3.20, 95% Cl 3.106, 3.3). **Conclusions:** This is the largest population-based cohort analysis to date of a potential relationship between LUTS and ASD. When compared to a matched cohort of neurotypical peers, pediatric patients with ASD had increased odds of being diagnosed with LUTS. Although this study does not suggest causality, the findings highlight the need for further prospective studies to examine the relationship between ASD and urinary dysfunction in a potentially vulnerable population.

THU-CS5-1120

To Stent or Not to Stent? Factors Associated with 30-Day Morbidity after Ureteral Stent Placement during Ureteral Reimplantation for Vesicoureteral Reflux

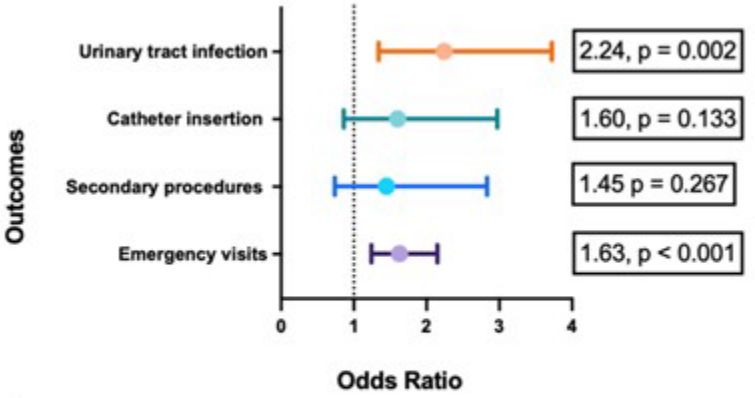
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ABSTRACT: Introduction and Objective: Ureteral reimplantation is a commonly performed procedure for vesicoureteral reflux (VUR). Ureteral stents are utilized in a variety of reimplant procedures, but routine use remains controversial due to potential complications. This study evaluates factors associated with 30-day outcomes after ureteral stent placement during pediatric ureteral reimplantation. **Methods:** A retrospective cohort study was conducted using the ACS NSQIP Pediatric database (2021–2023) of patients who underwent ureteral reimplantation for VUR. Patients were stratified by placement of ureteral stent and compared. Multivariate regression assessed associations between stent placement and emergency department (ED) visits, secondary procedures, catheter insertion, and urinary tract infections (UTI). **Results:** Of 2295 patients, 1059 (46.1%) had a ureteral stent placed. Stented patients were more likely male (38.7% vs. 27.3%), had Grade 4/5 VUR (61.1% vs. 54%), prior anti-reflux procedures (11.2% vs. 4.6%), urogenital comorbidities (25.4% vs. 20.5%), ASA 3/4 (12.9% vs. 7.3%), or open surgery (86.1% vs. 79.9%); $p < 0.05$. Stent placement was associated with longer operative times (240 vs. 206 min), increased length of stay (1.95 vs. 1.52 days), and higher rates of ED visit (13.8% vs. 8.4%), catheter insertion (2.8% vs. 1.4%),

and UTI (4.2% vs. 2.0%); $p < 0.05$ (Table 1). Stent placement was associated with increased odds of ED visit (OR 1.64, $p < 0.001$) and UTI (OR 2.24, $p = 0.002$), (Fig. 1). **Conclusions:** Ureteral stent placement during pediatric ureteral reimplantation is associated with increased short-term morbidity, particularly ED visits and UTIs. Therefore, routine stent use should be carefully considered, especially in low-risk pediatric patients.

	Cohort A Ureteral reimplantation without stent insertion (n=1236)	Cohort B Ureteral reimplantation with stent insertion (n=1059)	p-value
Mean Age, years (SD)	4.81 (3.1)	4.71 (3.4)	**0.004**
Sex (%) Male Female	 27.3% 72.7%	 38.7% 61.3%	**<0.001**
Race (%) White Black Asian	 78.7% 2.7% 4.5%	 74.9% 4.1% 6.4%	0.361
Hispanic (%)	15%	17%	0.415
Mean Weight, lbs (SD)	44.1 (26.3)	43.5 (27.7)	0.54
VUR Severity Grade 4/5 (%)	54%	61.1%	**<0.001**
Prior anti-reflux procedure (%)	4.6%	11.2%	**<0.001**
Urogenital comorbidities (%)	20.5%	25.4%	**0.005**
Bilateral (%)	54.9%	54.6%	0.803
ASA 3/4 (%)	7.3%	12.9%	**<0.001**
Major cardiac risk factors (%)	1.9%	2.3%	**0.032**
Seizure disorder (%)	1.0%	2.2%	**0.019**
Cerebral palsy (%)	0.2%	0.5%	0.353
Developmental delay (%)	8.7%	9.3%	0.617
Neuromuscular disorder (%)	1.5%	1.4%	0.936
Laparoscopic/MIS (%)	20.1%	13.9%	**<0.001**
Mean OR time (mins)	206.37	240.35	**<0.001**
Antibiotics on discharge (%)	84.1%	86.9%	0.057
Mean length of stay (days)	1.52	1.95	**<0.001**
Emergency room visits within 30 days (%)	8.4%	13.8%	**<0.001**
Unplanned procedure rates within 30 days (%)	1.3%	2.3%	0.076
Unplanned catheter insertion within 30 days (%)	1.4%	2.8%	**0.014**
UTI within 30 days (%)	2.0%	4.2%	**0.002**



Adjusted Odds Ratios for 30-Day Outcomes Following Ureteral Reimplantation for Stent Placement.
Multivariable logistic regression analysis controlling for age, sex, surgical approach (open vs. minimally invasive), ASA classification, VUR grade, prior anti-reflux procedures, urogenital comorbidities, bilateral surgery, and discharge antibiotic prescription.

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Balancing Pain Control and Safety: Association of Peri-Operative Ketorolac Use in Pediatric Testicular and Penile Surgeries and Post-Operative Outcomes

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ABSTRACT: Introduction and Objective: Data about the safety of ketorolac usage for peri-operative pain control for minor pediatric urology procedures is limited. The objective of this study is to determine whether usage of ketorolac in pediatric patients undergoing penile and testicular surgeries is associated with a higher rate of complications post-operatively. **Methods:** A retrospective cohort study of the US Collaborative Network of TriNetX was conducted; pediatric patients who underwent penile and testicular surgeries from 2005–2025 were identified. Patients with pre-existing bleeding disorders were excluded. This group was stratified by use of ketorolac in the peri-operative period, and 30-day outcomes were assessed (hematoma/seroma, infections, wound dehiscence, hematocele, hydrocele, epididymitis/orchitis). **Results:** 234,434 pediatric patients meeting eligibility criteria were identified. 54,695 (23.3%) patientsreceived peri-operative ketorolac. The baseline characteristics of the two cohorts are detailed in Table 1. Patients who received ketorolac were significantly older (mean age 4.4 years vs. 2.1 years). After propensity matching for age, race/ethnicity, 53,456 patients in each cohort were compared. The group that received peri-operative ketorolac had higher incidence of hematoma/seroma (0.11% vs. 0.04%, RR 2.52, $p = 0.0001$), hematocele (0.1% vs. 0.05%, RR 1.66, $p = 0.025$), and orchitis/epididymitis (0.06% vs. 0.03%, RR 1.88, $p = 0.032$). There was no statistically significant difference in wound dehiscence, hydrocele, or development of post-operative infections (Table 2). **Conclusions:** Ketorolac use in pediatric urologic surgery is associated with a modest but statistically significant increase in certain postoperative complications, including hematoma, hematocele, and orchitis. These findings underscore the importance of individualized pain management and careful risk-benefit discussions.

Table 1: Baseline characteristics of pediatric patients who underwent penile and testicular surgeries and received peri-operative ketorolac and those who did not.

	Received ketorolac (*n* = 54,695) N (%)	**Did not receive ketorolac (*n* = 179,739) N (%)**	***p*-value**
Age, mean (SD)	4.4 (4.1)	2.1 (3.1)	<0.001
Ethnicity, *n* (%)			
Non-Hispanic/Latino	37,506 (69.1)	114,938 (69.0)	0.679
Hispanic or Latino	8555 (15.8)	24,604 (14.8)	<0.001
Unknown ethnicity	8183 (15.1)	26,918 (16.6)	
Race, *n* (%)			
White	29,758 (54.9)	85,515 (51.4)	<0.001
Black	8947 (16.5)	28,597 (17.2)	<0.001
Asian	3363 (6.2)	9923 (6.0)	0.042
Other	6128 (11.3)	15,533 (9.3)	<0.001
Unknown	6048 (11.1)	26,892 (16.1)	

Table 2: Complications in patients who received ketorolac compared to those who did not (rates, risk ratio).

	Received Ketorolac (*n* = 53,456) N (%)	**Did not Receive Ketorolac (*n* = 53,456) N (%)**	**Risk Ratio (95% CI)**	***p*-Value**
Hematoma and/or seroma	58 (0.11)	23 (0.04)	2.522 (1.556, 4.087)	<0.001
Infections	93 (0.17)	94 (0.18)	0.989 (0.743, 1.317)	0.942
Dehiscence	92 (0.17)	84 (0.16)	1.095 (0.815, 1.472)	0.546
Hematocele	50 (0.1)	30 (0.05)	1.667 (1.060, 2.620)	0.025
Hydrocele	577 (1.08)	562 (1.05)	1.027 (0.915, 1.152)	0.655

Epididymitis and/or orchitis	32 (0.06)	17 (0.03)	1.882 (1.045, 3.389)	0.032

THU-CS5-1130

Beyond the Injury: Psychiatric and Gender Identity Sequelae of Pediatric Genitourinary Self-Harm

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ABSTRACT: Introduction and Objective: Self-inflicted genitourinary trauma (GUT) in pediatric populations remains an understudied phenomenon. While self-harm is frequently associated with underlying mental health conditions, the anatomical distribution and psychosocial implications of GUT are poorly characterized. Emerging literature suggests that individuals experiencing gender dysphoria are at elevated risk for psychiatric comorbidities and self-injurious behavior. This study aims to characterize the incidence of self-inflicted GUT in children and adolescents, and to evaluate its association with subsequent diagnoses of mood disorders and gender identity-related conditions. **Methods:** Using the US Collaborative Network of TriNetX, we identified patients aged 8–17 who presented between 2005 and 2024 with ICD-coded injuries to the external genitalia attributed to intentional self-harm. A control cohort included patients with accidental GUT. Individuals with pre-existing diagnoses of gender identity disorder, depression, or anxiety were excluded. Both cohorts were followed longitudinally for new diagnoses of (1) gender identity disorder, (2) depression, and (3) anxiety. **Results:** 334 patients with self-inflicted GUT and 91,242 with accidental GUT were identified. After matching for age and gender, the cumulative incidence of gender identity disorder was significantly higher in the self-inflicted cohort (4.5% vs. 0.2%; RR: 22.5, $p < 0.0001$). Similarly, rates of depression (59.3% vs. 4.6%; RR: 12.8, $p < 0.0001$) and anxiety (62.3% vs. 12.9%; RR: 4.8, $p < 0.0001$) were elevated (Fig. 1). **Conclusions:** Self-inflicted GUT in pediatric patients is strongly associated with subsequent development of gender identity disorder, depression, and anxiety. These findings underscore the need for early psychiatric and gender-affirming intervention in children presenting with self-inflicted genital trauma. Providers should maintain a high index of suspicion and collaborate closely with mental health professionals to ensure comprehensive care.

THU-CS5-1135

Predictive Factors Influencing Risk of Secondary Orchiopexy Following Primary Repair: A Retrospective Cohort Study Utilizing TriNetX Networks

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ABSTRACT: Introduction and Objective: Orchiopexy is the primary treatment for cryptorchidism and is typically performed between 6–18 months of age to reduce risks of testicular atrophy and malignancy. Although failure is uncommon (1.5–3.0%), some patients require secondary orchiopexy following their index surgery. Studies have postulated possible risk factors including age at index surgery, bilateral operation, surgical complexity (non-palpable testis), and poor follow-up. We aimed to characterize the factors associated with secondary orchiopexy, including age at reoperation and potential differences between operative approaches. **Methods:** We performed a retrospective review of boys aged 0–18 years who underwent primary orchiopexy between 01/01/2000 and 12/31/2025 across 53 Health Care Organizations in the TriNetX database. Analyses included propensity score matching and Kaplan-Meier survival analyses. **Results:** Within the TriNetX database, among 53,659 patients undergoing primary orchiopexy, 1877 required secondary orchiopexy. The estimated median age at reoperation was 8.3 years, approximately 3.3 years after index repair (ie. age at index ~5 years old). Primary repair before 24 months of age was independently associated with greatest increased risk of secondary orchiopexy. Concomitant inguinal hernia repair at index surgery was also associated with significantly higher reoperation risk. No significant difference was found in rates of secondary orchiopexy between children with routine follow-up vs. those without, regardless of age. Additionally, no significant difference was found in secondary orchiopexy rates between concomitant laparoscopic and open inguinal hernia repair approaches at the time of primary repair. **Conclusions:** In this large multi-institutional cohort, earlier age at index repair and concomitant inguinal hernia repair were independently associated with increased risk of secondary orchiopexy, whereas operative approach and follow-up patterns were not. These findings suggest that patient-specific characteristics and/or mechanical failure of the index repair, rather than operative approach or surveillance differences, may more strongly influence predicting and identifying reoperation risk.

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Re-Evaluating Ultrasound Predictors of Vesicoureteral Reflux in Patients with History of Prenatal Hydronephrosis: A Multicenter Analysis

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ABSTRACT: Introduction and Objective: The 2017 AUA guidelines on vesicoureteral reflux (VUR) provide criteria for obtaining a voiding cystourethrogram (VCUG) in infants with a history of prenatal hydronephrosis. Our objective was to evaluate ultrasound predictors of VUR described in these guidelines and assess their association with VUR in a large multicenter cohort of infants with prenatal hydronephrosis. **Methods:** Patients were prospectively enrolled into a multicenter hydronephrosis registry from 2008–2025. Inclusion criteria were prenatal hydronephrosis confirmed postnatally, with VCUG performed before six months of age and available postnatal ultrasound findings. Patients with prior UTI, posterior urethral valves or neurogenic bladder were excluded. Univariate and multivariable logistic regression analyses were performed. **Results:** Of the 2928 enrolled patients, 1270 met inclusion criteria with VCUG performed. The patients were predominantly male (70%) and represented 10 centers, with a median follow-up time of 28 months. VUR

was identified in 23% (294/1270) of patients. In univariate analyses, ureteral dilation (Odds Radio (OR) 2.38, 95% CI: 1.81–3.12) was found to be a predictor of VUR. High-grade hydronephrosis (OR 0.80, 95% CI: 0.61–1.1) was not a predictor of VUR. In multivariable analyses, the following ultrasound findings were significant independent predictors of VUR: ureteral dilation (OR 2.0, 95% CI: 1.5–2.7), duplication (OR 2.7, 95% CI: 1.8–4.0), and ureterocele (OR 2.3, 95% CI: 1.5–3.7). High-grade hydronephrosis was not associated with VUR (OR 0.73, 95% CI: 0.55–0.96). (Table). **Conclusions:** Ureteral dilation, duplication, and ureterocele were independent predictors of VUR. High grade hydronephrosis was not associated with increased VUR risk and should not alone guide decisions regarding cystography in infants with prenatal hydronephrosis. However, high grade hydronephrosis may prompt consideration to evaluate for possible bladder outlet obstruction.

Table: Multivariable predictors of VUR in patients with hydronephrosis undergoing VCUG (n = 1270).

Parameter	OR (multivariable)	p-value
High-grade hydronephrosis	0.73 (0.55–0.96)	0.03
Dilated Ureter	2.0 (1.5–2.7)	<0.001
Duplication	2.7 (1.8–4.0)	<0.001
Ureterocele	2.3 (1.5–3.7)	0.0002
Solitary kidney	0.60 (0.17–2.1)	0.43

2017 AUA Guidelines on VUR.

> **Recommendation**: Voiding cystourethrogram is recommended for children with high-grade ((Society of Fetal Urology grade 3 and 4) hydronephrosis, hydroureter or an abnormal bladder on ultrasound (late-term prenatal or postnatal), or who develop a urinary tract infection on observation.

THU-CS5-1145

Predictors of Longitudinal Quality-of-Life Improvement in Children with Voiding Dysfunction

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ABSTRACT: Introduction and Objective: Pediatric voiding dysfunction (VD) significantly impacts a child's quality of life (QoL). Longitudinal data on treatment-related QoL remain limited. This large-scale retrospective study examines the impact of longitudinal care on validated QoL metrics using the Vancouver Non-neurogenic Lower Urinary Tract Dysfunction (VNLUTD) questionnaire. **Methods:** A retrospective chart review evaluated 5–17-year-old VD patients from 2018 to 2024. Patients with multiple visits and VNLUTD scores were included. QoL was assessed between two clinic visits (initial and first return). Demographics, incontinence type, and symptoms were included as covariates. Treatment variables were modeled as time-varying covariates in a linear mixed-effects model with a random intercept to account for within-subject correlation. Cohen's d effect size quantified the adjusted mean change in scores between visits. **Results:** A total of 64 patients with 172 visits were reviewed (mean 2.69 ± 0.9 visits). Mean age was 10.27 ± 2.94, and mean VNLUTD score 16.78 ± 6.51. Patients were primarily female (59.9%) and White (51.2%). After adjustment, there was a significant decrease in VNLUTD score at the return visit (β = 2.98, SE = 0.78, p = 0.0002), indicating improved QoL. Using the baseline SD of 6.51, this corresponds to a Cohen's d of 0.46, a moderate effect. Dysuria (β = 4.79, p = 0.0003), frequency (β = 3.73, p = 0.0008), stranguria (β = 3.76, p = 0.034), and constipation (β = 2.10, p = 0.032) were independently associated with higher VNLUTD scores. Sex, race, primary vs. secondary enuresis, and other symptoms were not significant. Fiber use was associated with higher scores. **Conclusions:** Longitudinal analysis showed significant QoL improvement between visits, with dysuria, frequency, constipation, and stranguria predicting poorer outcomes. Fiber use was interestingly associated with higher scores, which could reflect possible reverse causation. Identifying and

managing these symptoms may enhance treatment efficacy. Further large-scale studies will be instrumental in refining and individualizing treatment approaches.

TABLE 1. LINEAR MIXED-EFFECTS MODEL RESULTS PREDICTING VNLUTD

PREDICTOR	Estimate (β)	Standard Error	t	p-value
VISIT (INITIAL VS RETURN)	**2.98**	0.78	3.81	**0.0002**
SEX (FEMALE VS MALE)	1.13	1.13	1	0.321
RACE (OVERALL)	—	—	—	0.608
AFRICAN AMERICAN	−8.27	5.94	−1.39	0.167
AMERICAN INDIAN	−6.26	6.08	−1.03	0.306
BLACK	−6.83	4.6	−1.48	0.142
HISPANIC	−10.14	6.09	−1.66	0.1
WHITE	−7.41	4.54	−1.63	0.107
ASIAN	−11.96	6.2	−1.93	0.058
OTHER/MULTIRACIAL	−3.80	5.8	−0.66	0.514
PRIMARY DIAGNOSIS	—	—	—	0.661
PRIMARY	−0.88	1.1	−0.80	0.427
SECONDARY	−1.97	3.4	−0.58	0.565
CONSTIPATION	**2.1**	0.97	2.17	**0.032**
DYSURIA	**4.79**	1.3	3.69	**0.0003**
HEMATURIA	−5.21	3.55	−1.47	0.145
STRANGURIA	**3.76**	1.75	2.15	**0.034**
UTI	0.77	1.47	0.52	0.602
URGENCY	−0.95	1.02	−0.93	0.356
FREQUENCY	**3.73**	1.09	3.43	**0.0008**

THU-CS5-1150

From Reconstruction to Reproduction: Successful Pregnancy in Patients with Bladder Exstrophy a Single Institution Experience

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ABSTRACT: Introduction and Objective: The earliest recorded case of a pregnancy in a patient with classical bladder exstrophy dates to the 18th century. This account described significant challenges during the patient's delivery. Underscoring the long-standing complexity of reproductive care in the exstrophy-epispadias complex (EEC) population. The objective of this study was to review our institution's large EEC database to better understand female reproductive outcomes in this population. **Methods:** Female patients over the age of 18 with classical bladder or cloacal exstrophy and a history of pregnancy (regardless of outcome) were included in this study. The primary outcome was the achievement of pregnancy. Secondary outcomes evaluated included rate of live births, pregnancy losses, method of bladder emptying, pelvic organ prolapse rates, additional urologic surgeries, urinary tract infections, and obstetric complications. **Results:** Thirty-one patients met the inclusion criteria. These patients had a total of 57 pregnancies. Thirty-eight of these pregnancies (66.6%) resulted in the live births of 40 children. Two pregnancies (3.5%) were multiple gestations, both twins. There were 16 spontaneous abortions (28.1%), two ectopic pregnancies (3.5%), and one molar pregnancy (1.8%). All patients underwent exstrophy closure during infancy, with 16 patients (51.6%) undergoing at least one osteotomy. Nine patients underwent repeat exstrophy closure. Most patients emptied their bladder per urethra or via a stoma into a bladder augment. Eight patients experienced pelvic organ prolapse after delivery, and nine had UTIs during pregnancy. **Conclusions:** Pregnancy is safe in those with bladder exstrophy. However, this population faces increased rates of pregnancy loss compared to national averages. While an exact cause remains unknown, reasons for decreased fertility are thought to be multifactorial. The medical complexity of these patients highlights the need for lifelong multidisciplinary management.

THU-CS5-1155

A SYSTEMATIC REVIEW AND META-ANALYSIS OF STAPLER CIRCUMCISION IN PAEDIATRIC UROLOGY

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ABSTRACT: Introduction and Objective: The aim of this study was to systematically evaluate the safety and efficacy of stapler (device-assisted) circumcision compared to conventional techniques in the paediatric population. With the growing use of stapler devices, a comprehensive evidence synthesis is required to inform best clinical practice and establish their role in paediatric urology. **Methods:** A PRISMA-compliant systematic review and meta-analysis was conducted, searching PubMed, Cochrane, Scopus, and Web of Science until March 2025. We included randomised controlled trials (RCTs) and cohort studies comparing stapler devices with conventional circumcision in patients under 18. Primary outcomes included operative time, bleeding, surgical site infection (SSI), wound dehiscence, and revision rates. Data were pooled using a random-effects model, with results expressed as odds ratios (OR) or standardised mean differences (SMD) with 95% confidence intervals (CI). **Results:** Twenty-three studies (n = 23,490 patients; 14,566 device-assisted, 9302 conventional) were included. Device-assisted circumcision was associated with a significantly shorter operative time (SMD −4.79 min; 95% CI −5.86 to −3.72; $p < 0.00001$). The device-assisted group also showed a significantly lower risk of postoperative bleeding (OR 0.50; 95% CI 0.26–0.96; $p = 0.04$) and a reduced need for revision surgery (OR 0.26; 95% CI 0.10–0.69; $p = 0.007$). No statistically significant differences were found for rates of SSI ($p = 0.07$), wound dehiscence ($p = 0.34$), or postoperative edema ($p = 0.59$). **Conclusions:** Stapler circumcision is a safe and effective alternative to conventional methods for children, offering significant advantages in shorter operative times, reduced bleeding, and fewer revision surgeries. Although other complication rates were comparable, the high heterogeneity across studies warrants cautious interpretation. These findings support stapler devices as a reliable option, particularly where efficiency is critical. Further high-quality, large-scale RCTs are needed to confirm these results.

Mini Podium Session 5: Trauma, Reconstruction, Sexual Dysfunction and Infertility

THU-CS6-1400

Paclitaxel-Coated Balloon Dilation for Management of Ureteroenteric Anastomotic Stricture

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ABSTRACT: Introduction and Objective: Ureteral strictures are a common urologic condition associated with significant morbidity and costs. Although open or minimally invasive reconstructive surgery remains the gold standard treatment, endoscopic approaches are often attempted due to lower morbidity. We report the management of a ureteroenteric anastomotic stricture (UEAS) using paclitaxel-coated balloon (PCB) dilation. **Methods:** A PubMed literature review was performed to identify reports describing PCB dilation for ureteral strictures and was compared with our institutional experience. **Results:** Published data on PCB dilation for ureteral strictures remains limited. We present a case of a 43-year-old female with interstitial cystitis status post remote cystectomy with Indiana pouch creation and an atrophic left kidney who presented with chronic right hydronephrosis managed with a percutaneous nephrostomy tube. Antegrade nephrostogram and loopogram performed 9/30/25 demonstrated a 3–4 cm right UEAS. Given poor candidacy for reconstructive surgery, she elected for off-label PCB dilation. On 12/15/25, the stricture was dilated using an 18 Fr × 4 cm UroMax balloon followed by an 18 Fr × 5 cm Optilume balloon via an antegrade approach. A ureteral stent was placed and removed via pouchoscopy 21 days later. Five weeks after stent removal, renal ultrasound showed absence of hydronephrosis. One month after stent

removal, serum creatinine improved to 1.36 from 2.1 preoperatively. **Conclusions:** This case demonstrates successful treatment of a UEAS using antegrade PCB dilation. While PCB dilation has reduced retreatment rates in urethral strictures, further studies are needed to clarify its role in treating ureteral strictures.

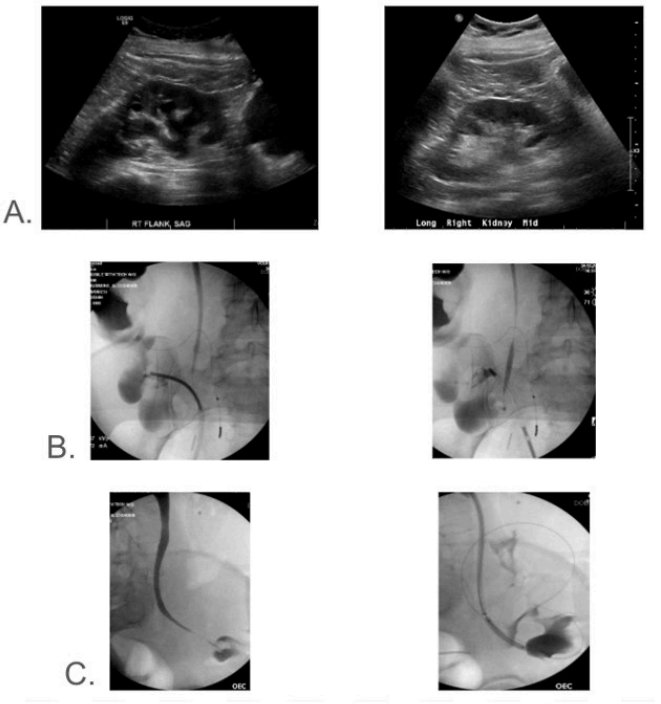


Figure 1: A. Renal ultrasound pre- and post- DCB UEAS dilation.
B. pre-dilation loopogram and antegrade nephrostogram.
C. DCB UEAS Intraoperative imaging.

THU-CS6-1405

Transurethral Incision with Mucosal Realignment for Bladder Neck Contracture: A Single-Institution Case Series

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ABSTRACT: Introduction and Objective: Bladder neck contracture (BNC) is a challenging complication following prostate surgery. Transurethral incision with mucosal realignment (TUIMR) has been proposed to improve mucosal healing and potentially reduce recurrence while avoiding abdominal reconstruction of the bladder neck. We report our initial institutional experience with TUIMR for the management of BNC. **Methods:** A retrospective review of our IRB-approved database from September 2023 to December 2025 was conducted. Eleven patients with BNC of mixed etiology underwent TUIMR. Presence of BNC was confirmed with cystoscopy. Patients who had failed prior endoscopic treatments of BNC were also included in this cohort. Postoperative evaluation occurred at intended intervals of 3, 6, and 12 months with uroflowmetry and cystoscopy when clinically indicated. The primary outcome was recurrence, defined as inability to pass a 16 French flexible cystoscope through the previously stenotic site at follow-up. **Results:** Eleven patients met all inclusion criteria with a median follow-up of 8.1 months (IQR 3.9–10.8). The mean age was 72 years. 10 patients (91%) had prior BNC treatments and 3 patients (27%) had prior pelvic radiation (Table). The median post-operative catheter duration was 10 days. Overall recurrence occurred in 2 patients (18%). One patient had a recurrence at approximately 3 months following TUIMR, while the other patient had a recurrence at 8 months. At most recent follow-up, patients without recurrence were able to void without complaints, while the two with recurrence became symptom free following subsequent transurethral incision with triamcinolone injection or drug-coated

balloon dilation. **Conclusions:** TUIMR for BNC demonstrates encouraging early outcomes with a low short-term recurrence rate. Larger studies with extended follow-up are required to better define long-term durability.

Table: Patient demographics and outcomes.

	Patients Who Underwent TUIMR (*n* = 11)
Age (years), mean	72
Sex (male), *n* (%)	11 (100)
History of Pelvic Radiation, *n* (%)	
Yes	3 (27)
No	8 (73)
History of Prior BNC Treatment, *n* (%)	
Yes	10 (91)
No	1 (9)
Post-Operative Catheter Duration (days), median (range)	10 (10–17)
Overall Recurrence, *n* (%)	
Yes	2 (18)
No	9 (81)
Recurrence at 3-month follow-up, *n* (%)	
Yes	1 (9)*
No	10 (91)
Recurrence at 6-month follow-up, *n* (%)	
Yes	1 (13)
No	7 (87)
Recurrence at 12-month follow-up, *n* (%)	
Yes	2 (50) **
No	2 (50)

*One patient had BNC recurrence at 3 months follow-up; **One patient had BNC recurrence at 8 months follow-up.

THU-CS6-1410

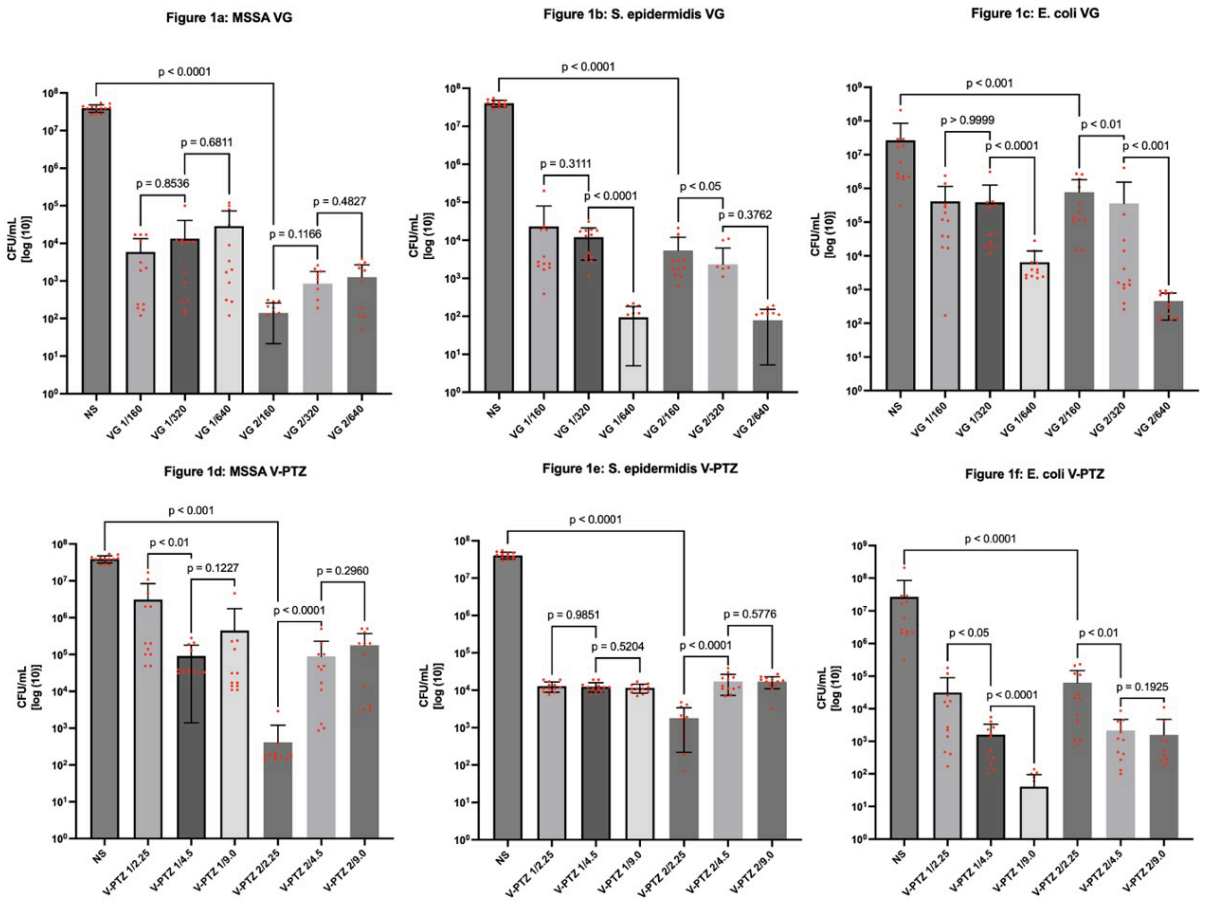
Maximizing the Potential of the Hydrophilic Penile Implant Surface: Exploring the Ideal Combination and Concentrations of Antibiotics

A. Kronenberg, B. Im, J. Rifkin, A. Winslow, N. Hickok and P. Chung

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ABSTRACT: Introduction and Objective: Vancomycin combined with gentamicin (VG) or piperacillin-tazobactam (V-PTZ) have been shown to confer adequate coverage of the pathogens commonly implicated in clinical penile prosthesis (PP) infection. To date, the antimicrobial efficacy of VG has not been compared directly to that of V-PTZ. **Methods:** Sterile 8 mm PP discs were submerged for 3 min in 3 mL of normal saline (NS) or the following antibiotic solutions: 1 or 2 mg/mL VAN + 160, 320, or 640 µg/mL GEN; 1 or 2 mg/mL VAN + 2.25, 4.5, or 9.0 mg/mL PTZ. PP discs were rinsed in NS, incubated with 105 colony forming units per milliliter (CFU)/mL of methicillin-sensitive Staphylococcus aureus sourced from a clinical PP infection, *Staphylococcus epidermidis* 35,984, or *Escherichia coli* 33,694 in trypticase soy broth (TSB) for 48 h. Samples were then rinsed with PBS and biofilm was removed by shaking in 0.3% Tween-20. Suspended bacteria were diluted, plated, and counted. **Results:** Average bacterial counts with 95% CI are plotted in Fig. 1a–f. Amongst the VG dipped discs, those dipped in 2 mg/mL VAN + 640 µg/mL GEN resulted in the greatest reduction in bacterial counts across all

species ($p < 0.001$). However, amongst V-PTZ dipped discs, no single combination had optimum efficacy across all species; against MSSA and S. epidermidis, the 2 mg/mL VAN + 2.25 mg/mL PTZ discs had the greatest reduction in bacterial counts ($p < 0.001$). However, against E. coli, the discs dipped in 1 mg/mL VAN + 9.0 mg/mL PTZ had the peak reduction (~6 log) in bacterial counts ($p < 0.001$). **Conclusions:** A combination of 2 mg/mL VAN and 640 µg/mL GEN confers the greatest average antimicrobial efficacy.



THU-CS6-1415

Surgical Management of Inguinal Hernias in the Setting of Penile Implant Reservoirs and Artificial Urinary Sphincter Pressure Regulating Balloons

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ABSTRACT: Introduction and Objective: Inflatable penile prostheses (IPP) and artificial urinary sphincters (AUS) are established surgical treatments for refractory erectile dysfunction (ED) and stress urinary incontinence (SUI). Inguinal hernias are common and multifactorial; however, limited data exist regarding the presentation and management of inguinal hernias in patients with existing IPP/AUS reservoirs. This work aims to characterize the presentation and surgical management of inguinal hernias in this population. **Methods:** A retrospective review was performed of male patients ≥18 years old who underwent inguinal hernia repair January 2017-January 2026 at a high-volume academic center who had a concomitant diagnosis of ED or SUI. Patient demographics and intraoperative features of hernia repair and prior IPP/AUS placement were included. **Results:** Ten patients presented with *de novo* indirect ($n = 7$) or direct ($n = 3$) hernias ipsilateral to IPP reservoir ($n = 5$) or AUS ($n = 5$) pressure regulating balloons (PRB) (Table 1). All herniorrhaphies were repaired with mesh in a robotic ($n = 2$) or open fashion ($n = 8$). A urologist was present intraoperatively in 3 cases that underwent device revision concomitantly with herniorrhaphy (1 IPP reservoir explant due to patient preference, 1 IPP reservoir replacement due to

herniation of reservoir, and 1 AUS pressure regulating balloon replacement due to recurrent SUI). Of the 8 patients with documented follow up within 2 months of repair, no complications, device malfunctions, or recurrent hernias were observed. **Conclusions:** Development of an inguinal hernia in the setting of an IPP reservoir or AUS PRB is an uncommon event. Urologists should be consulted prior to herniorrhaphy to evaluate whether revision of the reservoir or PRB are required. Robotic and open approaches are both viable and did not compromise IPP or AUS device function in this small cohort.

TABLE 1. Clinical Characteristics of Patients with Inflatable Penile Prosthesis or Artificial Urinary Sphincter Who Developed Subsequent Ipsilateral Hernia

Baseline IPP/AUS Characteristics	
Implant Type, N (%)	
Artificial Urinary Sphincter AMS 800	5 (50%)
Coloplast Titan IPP	3 (30%)
Boston Scientific IPP	2 (20%)
Reservoir Placement, N (%)	
Retropubic	6 (60%)
Submuscular	4 (40%)
Virgin Reservoir Placement, N (%)	
Yes	5 (50%)
No	5 (50%)
AUS Reservoir Volume, mL	
Mean ± SD	23.0 ± 1.2
IPP Reservoir Volume, mL	
Mean ± SD	98.0 ± 27.8
Hernia Following IPP/AUS Placement	
Age at Hernia Repair, Years	
Mean ± SD	71.9 ± 7.0
Years between IPP/AUS Placement and Hernia Repair	
Mean ± SD	5.5 ± 4.5
Inguinal Hernia Classification, N (%)	
Direct	2 (20%)
Direct with Herniated Reservoir	1 (10%)
Indirect	7 (70%)
Surgical Approach, N (%)	
Open	8 (80%)
Robotic	2 (20%)
Urologist Present at Repair, N (%)	
Yes	3 (30%)
No	7 (70%)
Device Revision during Hernia Repair, N (%)	
Yes	3 (30%)
No	7 (70%)
IPP/AUS Functional After Hernia Repair, N (%)	
Yes	6 (60%)
No (Device Explanted)	2 (20%)
Not Specified	2 (20%)

Abbreviations: IPP, Inflatable penile prosthesis; AUS, Artificial Urinary Sphincter

THU-CS6-1420

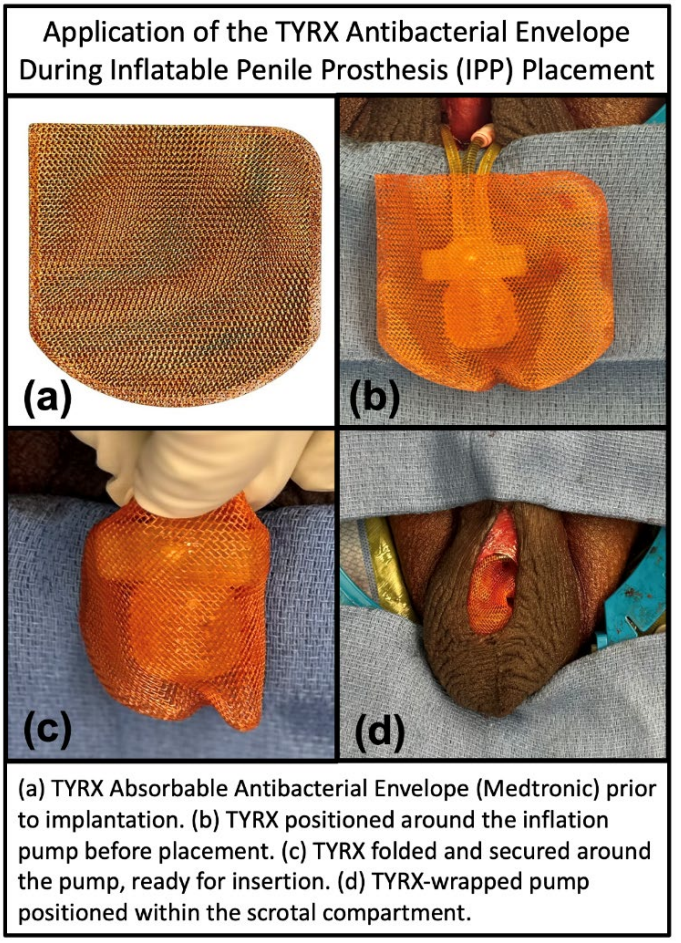
Use of TYRX Antibacterial Envelope in Inflatable Penile Prosthesis Surgery: A Prospective Phase IV Pilot Study

J. Baran, J. Rifkin, B. Im, T. Desai, J. DeHoratius, O. Kolesnikov and P. Chung

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ABSTRACT: Introduction and Objective: Infection remains a concern in inflatable penile prosthesis (IPP) surgery. Medtronic's TYRX Absorbable Antibacterial Envelope is a polypropylene mesh pocket delivering minocycline and rifampin for seven days and fully absorbing in nine weeks. It is FDA approved for use with cardiac pacemakers and neuromodulation devices. There is no indication for use in IPP, particularly for enveloping the scrotal pump during implantation. This phase IV pilot study evaluates the feasibility, safety, and patient-reported outcomes with use of the absorbable antibacterial envelope during IPP surgery. **Methods:** Fifteen men who underwent primary or revision IPP placement by a single surgeon were enrolled between January-May 2025. Demographic and

comorbidity data were collected. IPP pumps were placed in the absorbable antibacterial envelope and positioned into a sub-dartos pouch; no other changes to standard-of-care surgical placement were made. The primary endpoint was the patient's ability to locate and operate the pump within six weeks after surgery. Secondary endpoints included infection and mechanical malfunction within six months after surgery. **Results:** Fifteen patients were enrolled and completed the six month follow up. All patients were able to utilize the pump by the six-week visit. More than half of participants were overall "very" or "extremely" satisfied (8/15) and confident (12/15) with the inflation and deflation process. No patient experienced infection or malfunction. One patient on anticoagulation and hemodialysis developed a scrotal hematoma, which resolved conservatively. **Conclusions:** Use of the absorbable antibacterial envelope in IPP surgery appears feasible and safe, with patients being able to utilize the pump at six weeks after surgery. No infection or mechanical malfunctions were encountered. These findings support continued evaluation of the absorbable antibacterial envelope as an adjunctive infection-prevention strategy in prosthetic urology.



THU-CS6-1425

Outcomes of Ureteroiliac Artery Fistula Managed with Endovascular Therapy: A Single-Institution Case Series

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ABSTRACT: Introduction and Objective: Ureteroiliac artery fistula (UAF) is a rare but life-threatening condition presenting with intermittent hematuria or hemorrhagic shock. Although endovascular stenting is the preferred initial therapy, long-term outcomes are not well-defined. We evaluated outcomes and complications in a contemporary cohort of UAF treated with primary endovascular intervention. **Methods:** TriNetX was queried using ICD and CPT codes to identify patients treated between September 2010 and July

2025 with hematuria and prior iliac angiography or endovascular stent grafting. UAF diagnoses were confirmed by manual chart review. Demographics, interventions, and outcomes were collected and analyzed using REDCap. **Results:** Among 134 screened patients, 5 developed UAF (median age 71 years, IQR 70–74). All had prior major abdominal surgery, pelvic radiation, and ureteral stenting; 80% had ileal conduits. Indications for stenting included ureteral stricture (80%) and ureteroenteric leak (20%), with a median stent-to-fistula interval of 3.0 years (IQR 0.6 to 5.5). All patients underwent primary endovascular stent grafting; 20% required additional internal iliac embolization. Ureteral stents were removed within one week in 80%, and all patients received percutaneous nephrostomy diversion. No patient required new long-term dialysis. Post-treatment, 60% underwent graft revision (7 total revisions), 20% required thrombectomies for graft occlusion events, and 60% ultimately required definitive surgery (20% nephrectomy with vascular bypass, 40% vascular bypass with ureteral ligation) due to recurrent hemorrhage. Recurrent urinary tract infections resolved after nephrostomy diversion. Median follow up was 16 months (IQR 9–73 months), calculated by date of diagnosis to death or the last clinical contact. Overall mortality was 80% regardless of therapy. **Conclusions:** Primary endovascular stenting provides rapid hemorrhage control but is frequently not definitive treatment in patients with extensive pelvic tissue damage. High rates of revision, surgery, and mortality highlight the need for early multidisciplinary evaluation and consideration of definitive management.

THU-CS6-1430

Non-Transecting Robotic Ureteral Reconstruction Is Effective in the Management of Narrowed Proximal and Mid-Ureteral Stricture Disease: A Matched Analysis

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[1]Fox Chase-Temple Urologic Institute, Philadelphia, PA, USA; [2]Sidney Kimmel Medical College—Thomas Jefferson University, Philadelphia, PA, USA

ABSTRACT: Introduction and Objective: Reconstruction of proximal and mid ureteral strictures can be technically challenging, with various approaches based on stricture patency. We performed a matched analysis to evaluate outcomes between transecting and non-transecting robotic ureteral reconstructive (RUR) techniques for management of proximal and mid ureteral strictures. **Methods:** We retrospectively reviewed our single-institutional RUR database to identify all consecutive patients undergoing surgical management for proximal or mid-ureteral strictures between 2012 and 2022. Patients with obliterative strictures were excluded. Patients were categorized by whether a transecting (ureteroureterostomy, augmented buccal mucosa graft anastomosis, appendiceal interposition) or non-transecting (dorsal onlay or ventral inlay buccal mucosa graft) technique was performed. Propensity score matching using demographics (e.g., age, gender, BMI) and comorbidities (e.g., smoking status, diabetes, history of radiation) was performed. Peri-operative variables were compared using chi-square, Fisher's exact, and Mann-Whitney U tests. Statistical significance was defined as $p < 0.05$. Surgical success was defined as the absence of additional procedures for recurrent stricture disease. **Results:** Thirty patients were included, with 15 in each cohort (Table 1). There were no significant differences in baseline pre-operative characteristics between groups. Median operative time ($p = 0.13$) and estimated blood loss ($p = 0.21$) did not differ significantly. The non-transecting cohort had a significantly greater intraoperative stricture length than the transecting cohort (2.5 cm versus 1.5 cm, $p = 0.018$). Surgical success between the non-transecting and transecting cohorts were comparable (86.7% versus 80.0%, $p = 1.0$). **Conclusions:** Transecting and non-transecting approaches have comparable success for RUR for proximal and mid-ureteral strictures. Despite longer stricture lengths, the comparable outcomes of non-transecting approach may be related to preserved native anatomy and vasculature. These results support non-transecting technique as a feasible and effective option in properly selected patients.

Table 1: Comparison of perioperative outcomes for non-transecting vs. transecting RUR.

	Non-Transecting ($n = 15$)	Transecting ($n = 15$)	p-Value
Preoperative Characteristics			
Age (years)	55.0 (IQR 42.0–60.5)	56.0 (IQR 40.5–62.0)	0.97
Gender			
- Male	8/15 (53.3%)	7/15 (46.7%)	1.0
- Female	7/15 (46.7%)	8/15 (53.3%)	

Body mass index (kg/m^2)	31.2 (IQR 28.6–33.4)	27.7 (IQR 24.6–37.0)	0.65
Smoking Status - Never - Former - Current	 9/15 (60.0%) 5/15 (33.3%) 1/15 (6.7%)	 9/15 (60.0%) 4/15 (26.7%) 2/15 (13.3%)	0.80
Prior abdominal surgery	6/15 (40.0%)	11/15 (73.3%)	0.14
History of radiation	2/15 (13.3%)	0/15 (0.0%)	0.48
Diabetes mellitus	2/15 (13.3%)	3/15 (20.0%)	1.0
Stricture location - Proximal - Middle Proximal + Middle	 8/15 (53.5%) 6/15 (40.0%) 1/15 (6.7%)	 7/15 (46.7%) 7/15 (46.7%) 1/15 (6.7%)	0.93
Prior ureteral intervention	4/15 (26.7%)	2/15 (13.3%)	0.65
Intraoperative Characteristics			
Operative time (minutes)	237.0 (IQR 199.0–276.0)	197.0 (IQR 172.5–244.5)	0.13
Estimated blood loss (milliliters)	75.0 (IQR 50.0–100.0)	100.0 (IQR 75.0–125.0)	0.21
Intraoperative stricture length (centimeters)	2.5 (IQR 1.9–3.0)	1.5 (IQR 1.0–2.5)	**0.018**
Indocyanine green fluorescence used	8/15 (53.3%)	9/15 (60.0%)	1.0
Postoperative Characteristics			
Surgical success	13/15 (86.7%)	12/15 (80.0%)	1.0
Hospital length of stay (days)	1.0 (IQR 0.0–1.0)	1.0 (IQR 1.0–1.0)	0.39
Ureteral stent duration (weeks)	6.0 (IQR 6.0–6.8)	6.0 (IQR 4.8–6.0)	0.11
Follow up duration (months)	40.6 (IQR 10.2–60.6)	17.5 (IQR 4.8–60.5)	0.48

THU-CS6-1435

Evolving Trends in Robotic Ureteral Reconstruction: Increasing Adoption of Non-Transecting Techniques for Complex Strictures

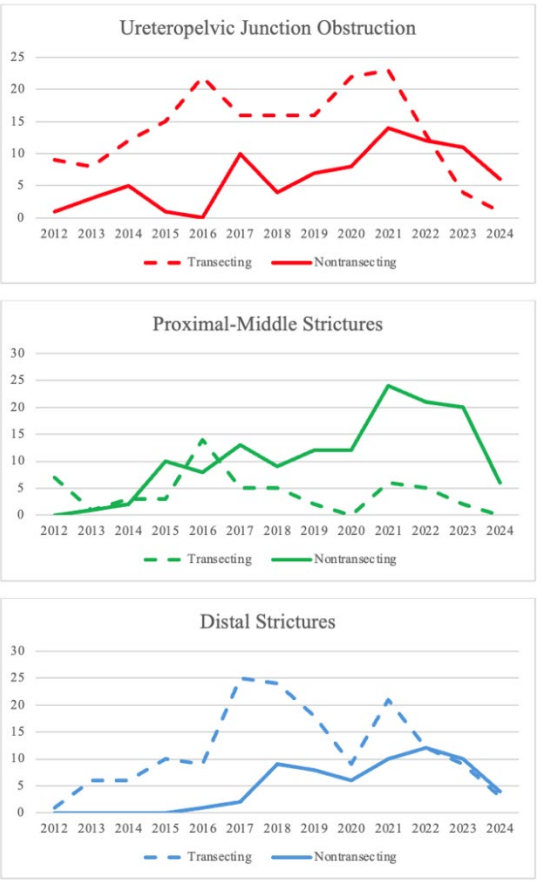
M. Lee[1], K. Zhao[1], M. Stifelman[2], L. Zhao[3], R. Lee[1] and D. Eun[4]

[1]Fox Chase-Temple Urologic Institute, Philadelphia, PA, USA; [2]Hackensack Meridian School of Medicine, Nutley, NJ, USA; [3]New York University Langone Health, New York, NY, USA; [4]Sidney Kimmel Medical College at Thomas Jefferson University, Philadelphia, PA, USA

ABSTRACT: Introduction and Objective: To describe contemporary practice patterns of robotic ureteral reconstruction (RUR) for surgical management of ureteral strictures and demonstrate trends in types of techniques (transecting versus non-transecting) performed. **Methods:** We retrospectively reviewed our multi-institutional Collaborative of Reconstructive Robotic Ureteral Surgery (CORRUS) database to identify all consecutive patients undergoing RUR for surgical management of narrowed ureteral strictures between 2012 and 2024. Patients were stratified by operative technique (transecting versus non-transecting) and analyzed over time to assess trends in utilization. We further evaluated the proportion of non-transecting cases performed in higher-risk scenarios, including

redo reconstruction, radiation-induced strictures, and long-segment disease. **Results:** Overall, there was a marked temporal increase in the adoption of non-transecting RUR techniques for surgical management of narrowed strictures (Fig. 1). Since 2022, 48.3% of non-transecting cases were performed for management of higher-risk ureteropelvic junction obstruction, including redo reconstruction, prior pelvic radiation, and long-segment disease. In recent years, non-transecting approaches have been increasingly utilized in higher-risk proximal-middle and distal strictures (89.4% and 69.2%, respectively). **Conclusions:** Contemporary trends in RUR demonstrate a preference for non-transecting techniques. The increasing application of non-transecting techniques in redo, radiation-induced, and long-segment strictures may highlight the importance of prioritizing blood supply and minimizing ischemic risk in complex ureteral stricture disease.

Figure 1: Trends of Transecting versus Non-Transecting RUR for Stricture Management



THU-CS6-1440

To Transect or Not to Transect? Comparison of Robotic Ureteral Reconstruction Techniques for Distal Ureteral Strictures

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[1]Fox Chase-Temple Urologic Institute, Philadelphia, PA, USA; [2]Sidney Kimmel Medical College at Thomas Jefferson University, Philadelphia, PA, USA

ABSTRACT: Introduction and Objective: Historically, distal ureteral strictures were primarily managed with ureteroneocystostomy. Advances in robotic surgery have expanded reconstructive options, including transecting and non-transecting approaches. Here, we compare perioperative outcomes of transecting versus non-transecting robotic ureteral reconstruction (RUR) techniques for the surgical management of distal ureteral strictures. **Methods:** We performed a retrospective, single-institutional analysis to identify all consecutive patients undergoing RUR for surgical management of distal ureteral strictures between 2018 and 2024. Indications for surgery included

patients with narrowed (non-obliterative) distal ureteral strictures with associated flank pain, recurrent urinary tract infections and/or decreasing renal function on renal scan. Propensity score matching was performed and perioperative outcomes were compared using nonparametric independent sample median tests and chi-square tests ($p < 0.05$ was considered significant). Surgical success was defined as freedom from additional intervention for recurrent stricture disease. **Results:** Overall, 34 patients met inclusion criteria for analysis (Table 1). There were no differences in preoperative characteristics, including median age ($p = 0.36$), body mass index ($p = 0.65$), prior ureteral intervention ($p = 1.00$), and history of pelvic radiation ($p = 0.72$). Non-transecting techniques included side to side reimplantation (70.6%) and buccal mucosa graft onlay ureteroplasty (29.4%). Transecting techniques included refluxing reimplantation (82.4%), non-refluxing reimplantation (5.9%), and ureteroureterostomy (11.8%). There was no difference in median operative time ($p = 0.33$), estimated blood loss ($p = 0.94$), or intraoperative stricture length ($p = 0.89$). There was no difference in surgical success between both groups ($p = 1.00$). **Conclusions:** Transecting and non-transecting RUR techniques for narrowed distal ureteral strictures demonstrate comparable and favorable perioperative outcomes. Both approaches represent effective reconstructive strategies and may be utilized based on stricture characteristics and intraoperative findings.

Table 1: Comparison of perioperative outcomes for non-transecting vs. transecting RUR.

Variable	Non-Transecting ($n = 17$)	Transecting ($n = 17$)	p-Value
Age (IQR), years	69.0 (IQR 52.0–73.0)	60.0 (IQR 44.0–69.0)	0.36
Body mass index (IQR), kg/m^2	26.7 (IQR 24.2–33.4)	27.0 (IQR 25.0–31.0)	0.65
Prior abdominal surgery (%)	52.9%	58.8%	1.00
History of pelvic radiation (%)	29.4%	41.2%	0.72
Diabetes mellitus (%)	11.8%	17.6%	1.00
Prior ureteral intervention (%)	17.6%	17.6%	1.00
Median operative time (IQR), minutes	216.0 (IQR 151.0–257.0)	187.0 (IQR 134.0–223.0)	0.33
Median estimated blood loss (IQR), milliliters	100.0 (IQR 50.0–100.0)	100.0 (IQR 50.0–100.0)	0.94
Median stricture length (IQR), centimeters	2.3 (IQR 1.0–3.0)	2.0 (IQR 2.0–3.0)	0.89
Utilization of indocyanine green (%)	58.8%	47.1%	0.73
Median hospital length of stay (IQR), days	1.0 (IQR 1.0–1.0)	1.0 (IQR 1.0–3.0)	0.45
Median follow up duration (IQR), months	17.6 (IQR 6.3–28.7)	26.8 (IQR 7.0–49.3)	0.36
Surgical success (%)	88.2%	94.1%	1.00

THU-CS6-1445

Results of Primary Closure of Fournier's Gangrene Debridement in a Rural Appalachian Population

Z. Edgerton, G. Edwards, J. Herriott, A. Pettit, J. Mihalo, K. Sweeney, B. Barash, A. Colangelo, W. Harvey, C. Gish, D. McClelland and A. Elbakry

West Virginia University Medicine, Morgantown, WV, USA

ABSTRACT: Introduction and Objective: Fournier's gangrene is a life-threatening urologic emergency. Traditionally, patients have been debrided and left with open incisions to allow for either delayed closure or healing by secondary intention. We sought to evaluate outcomes in patients whose incisions were closed immediately during initial debridement. **Methods:** We evaluated all patients at our single institution who underwent debridement for Fournier's gangrene from 2022 to 2025. We stratified patients to either primary

closure, secondary closure, or healing by secondary intention. We then evaluated whether or not the patients that were treated with primary closure had wound breakdown or required re-operation for their Fournier's gangrene. **Results:** From 2022 to 2025, 53 patients were treated with incision and debridement for Fournier's gangrene at our institution. 22 of them were treated with primary closure. Of the patients treated with primary closure, one experienced some degree of wound breakdown that did not require re-operation. No patients in this cohort required re-operation. In comparison, all patients treated with secondary closure or healing by secondary intention required additional surgeries during their initial hospitalization. Average length of follow up for the primary closure patients was 3.1 months. **Conclusions:** Early closure of debridement of Fournier's gangrene is a reliable, safe, and durable treatment option. This can limit a patient's need to undergo re-operation and the potential morbidity that comes with it. Limitations of the study included absence of information about the size of the debrided area. This is a prohibiting factor for primary closure in extensive tissue loss. However, the study demonstrates the safety and efficacy of the primary closure whenever technically feasible in contrary to the dogma.

THU-CS6-1450

Primary Closure Following Debridement of Fournier's Gangrene Leads to Shorter Duration of Hospitalization

Z. Edgerton, J. Herriott, G. Edwards, J. Mihalo, A. Pettit, K. Sweeney, W. Harvey, B. Barash, A. Colangelo, C. Gish, D. McClelland and A. Elbakry

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ABSTRACT: Introduction and Objective: Fournier's gangrene is a life-threatening urologic emergency. Traditionally, debridement was done and the surgical site was left open to either heal by secondary intention or closure at a later date after multiple debridements. This results in long hospital stays with high costs to the patient and hospital system. We sought to evaluate if primary closure of Fournier's debridement lead to shorter hospital stays in select patients. **Methods:** We evaluated all cases of Fournier's gangrene at our institution and stratified patients based on whether they were closed primarily or left open at the time of initial debridement. Based on this stratification, we evaluated the average length of hospital stay for each group. **Results:** Between 2022 and 2025, there were 54 cases of Fournier's gangrene at our institution. 22 of these patients were closed primarily and the remaining 32 patients were not. The average length of hospital stay for the primary closure group was 8.57 days. Compared to the non-primary closure group, where the average hospital stay was 16.67 days, this represented a statistically significant decrease in length of hospitalization (Welch two-sample t-test, p = 0.002). Re-operation rate in the primary closure group was 0%. **Conclusions:** Primary closure of Fournier's gangrene leads to significant reduction in length of hospital stay when compared to delayed closure. Primary closure did not lead to any instances of re-operation in our cohort. Limitations of the study included absence of information about the size of the debrided area. This is a prohibiting factor for primary closure in extensive tissue loss. However, the study demonstrates the safety and efficacy of the primary closure whenever technically feasible in contrary to the dogma.

THU-CS6-1455

Feasibility, Safety and Efficacy of Transurethral Incision with Transverse Mucosal Realignment for Neo-Vesicourethral Anastomotic Stenosis in Neobladder Patients: A Multi-Institutional Pilot Study

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ABSTRACT: Introduction and Objective: Orthotopic neobladder (ONB) following radical cystectomy can be complicated by neo-vesicourethral anastomotic stenosis (nVUAS). Though endoscopic management remains first-line, standard methods of dilation, incision, or resection yield variable outcomes. The transurethral incision with transverse mucosal realignment (TUI-TMR) (Warner JN, Urology 2021) is a novel endoscopic technique originally described for post-prostatectomy VUAS and bladder neck contracture with

promising results. Given no previous description of this technique for nVUAS repair, we sought to examine our pilot experience with TUI-TMR in this complex patient population. **Methods:** Across two institutions, we retrospectively reviewed patients with ONB and nVUAS who underwent TUI-TMR from May 2021 to July 2025. Presence of nVUAS was confirmed with cystoscopy or retrograde urethrography. Patients were treated using the TUI-TMR technique as originally described, with no modifications necessary for the difference in tissue type. The primary outcome was surgical success, defined as no need for surgical re-intervention for nVUAS at follow-up. **Results:** We identified six men with ONB who underwent nVUAS repair with the TUI-TMR technique; five patients' surgeries proceeded as planned while one patient's TUI-TMR procedure was aborted due to extensive fibrosis and inability to place a tension-free suture. Among the five patients who underwent TUI-TMR as intended, none had prior pelvic radiation while 60% (3/5) had multiple previous nVUAS treatments (Table). All patients experienced same-day discharge. No patients experienced surgical complications. With a median follow-up of 4 months (range 2–33), surgical success was observed in 80% (4/5) of patients. **Conclusions:** TUI-TMR for nVUAS repair in patients with ONB is feasible, safe, and appears effective. Future work with larger cohorts and long-term follow-up will aid in validating durability and functional outcomes.

Table: Patient Demographics and Outcomes.

	Neobladder Patients who underwent TUI-TMR (n=5)
Age (years), mean	70
Sex (male), n (%)	5 (100)
History of Pelvic Radiation, n (%)	
Yes	0 (0)
No	5 (100)
History of Prior nVUAS Treatment, n (%)	
Yes	3 (60)
No	2 (40)
Operative Time (minutes), median (range)	62 (51-97)*
Hospital Length of Stay (days), median (range)	0 (0-0)
Post-Operative Catheter Duration (days), median (range)	14 (12-30)
Surgical Complications, n (%)	
Yes	0 (0)
No	5 (100)
Surgical Success, n (%)	
Yes	4 (80)
No	1 (20)**

* One patient's operative time missing.

** One patient underwent repeat TUI-TMR, after which he was able to void volitionally.

Abbreviations: TUI-TMR: Transurethral Incision with Transverse Mucosal Realignment, nVUAS: Neo-Vesicourethral Anastomotic Stenosis

Mini Podium Session 6: BPH and Stones

THU-CS7-1600

Agreement between MRI and Pathologic Measurements of the Prostate Central Zone: Implications for Preoperative Benign Prostatic Hyperplasia Assessment

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ABSTRACT: Introduction and Objective: AUA Benign Prostate Hyperplasia (BPH) Guidelines recommend assessing prostate size and morphology prior to procedural intervention. MRI allows visualization of the prostatic central zone (CZ), which may be valuable in BPH procedural planning. We assessed agreement between CZ width measured on MRI and pathology specimens in patients who underwent radical prostatectomy. **Methods:** We identified 24 males who underwent radical prostatectomy between July 2023-October 2025. MRI CZ width was measured at the widest point in axial and coronal planes (Fig. 1 A, B). Pathologic CZ diameter was recorded at the widest axial dimension (Fig. 1 C, D). Spherical prostate volumes were calculated for each modality. Descriptive and correlation statistics assessed agreement between MRI and pathologic measurements. **Results:** The mean CZ histologic diameter was 3.30 ± 0.14 cm. Mean MRI CZ diameters were 3.34 ± 0.14 cm (axial) and 3.40 ± 0.15 cm (coronal). The mean percent difference between MRI and pathology was 6.9 ± 1.1% ($p = 0.48$) for axial and 6.5 ± 1.0% ($p = 0.06$) for coronal measurements. Linear regression demonstrated strong correlations between MRI and pathologic measurements with Pearson correlation coefficients (PCC) of 0.915 (axial) and 0.942 (coronal). Bland-Altman analysis showed mean differences of −0.04 cm (95% limits of agreement [LoA]: −0.61 to 0.53 cm) for axial and −0.10 cm (95% LoA: −0.59 to 0.39 cm) for coronal measurements (Fig. 1 E, F). Spherical volume calculations demonstrated strong correlation between MRI and pathology (PCC 0.896). **Conclusions:** MRI-derived CZ measurements demonstrate strong agreement with pathologic measurements. These findings suggest MRI can reliably characterize CZ morphology and volume, which may improve preoperative planning for BPH interventions.

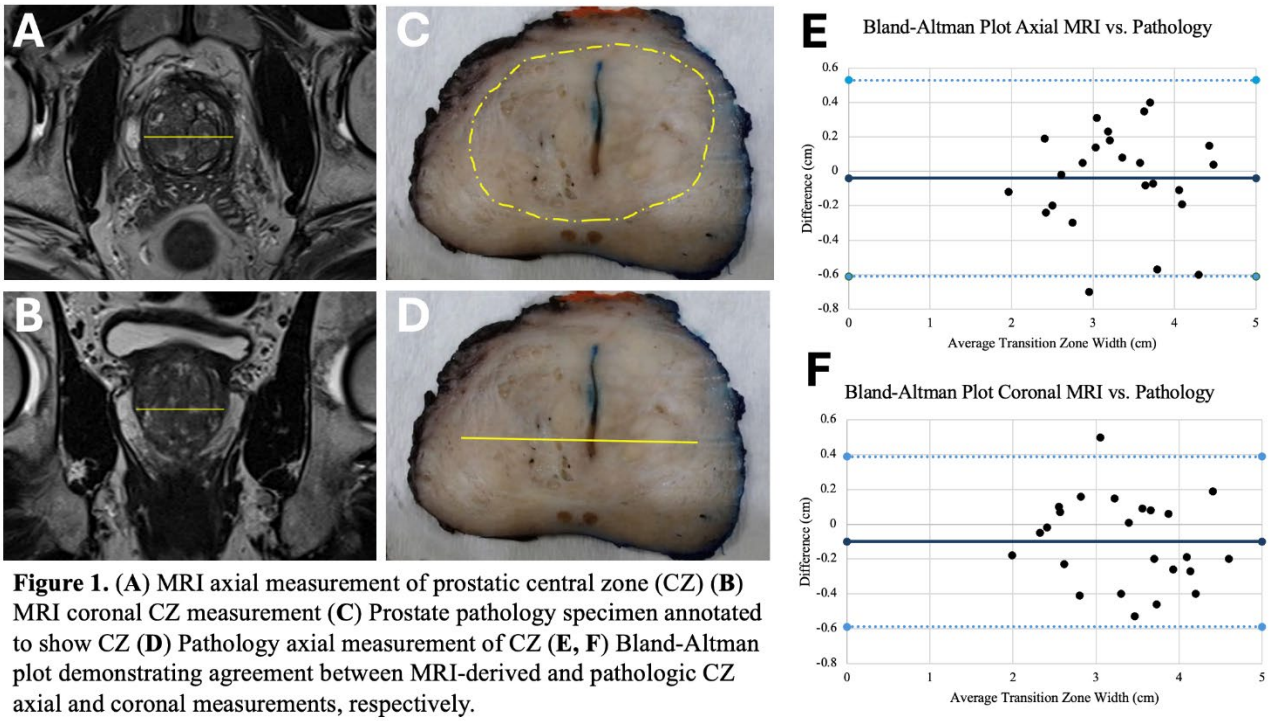


Figure 1. (**A**) MRI axial measurement of prostatic central zone (CZ) (**B**) MRI coronal CZ measurement (**C**) Prostate pathology specimen annotated to show CZ (**D**) Pathology axial measurement of CZ (**E, F**) Bland-Altman plot demonstrating agreement between MRI-derived and pathologic CZ axial and coronal measurements, respectively.

THU-CS7-1605

Aquablation vs. Holmium Laser Enucleation of the Prostate vs. Single-Port Robot-Assisted Simple Prostatectomy: A Single Institution Study

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ABSTRACT: Introduction and Objective: Aquablation, holmium laser enucleation of the prostate (HoLEP), and single-port robot-assisted simple prostatectomy (SP-RASP) are commonly utilized treatments for benign prostatic hyperplasia. We compared multiple perioperative variables and outcomes for aquablation, HoLEP, and SP-RASP. **Methods:** A retrospective study was conducted, including patients undergoing aquablation, HoLEP, and SP-RASP between 2022–2025. Data collection included various pre-operative, intraoperative, and post-operative characteristics. Descriptive statistics and statistical analyses were performed. **Results:** A total of 54 aquablation, 109 HoLEP, and 132 SP-RASP patients were analyzed. Aquablation patients had the shortest operative time, lowest transient incontinence rates, and highest same-day discharge rates, whereas HoLEP patients had the shortest catheter duration. SP-RASP patients had a significantly higher same-day discharge rate and lower transient incontinence rates compared to HoLEP patients. A sub-analysis comparing patients with 80–150 g prostate sizes was also conducted, which showed similar results for operative times, EBL, and catheter duration when comparing the three treatment modalities. Additionally, transient incontinence rates did not differ significantly between the three procedures in the stratified **Conclusions:** Our study is the first to directly compare perioperative outcomes after aquablation, HoLEP, and SP-RASP for surgical treatment of patients with benign prostatic hyperplasia. Long-term functional outcomes between these three modalities were not assessed and requires further investigation.

Outcome	Aquablation (n=54)	HoLEP (n=109)	SP-RASP (n=132)	p-value
Prostate Size (g), mean ± SD	85.4 ± 44.89	103.5 ± 42.96	158.3 ± 79.65	< 0.0001
Operative Time (min), mean ± SD	72.21 ± 23.57	152.4 ± 61.42	234.6 ± 51.03	< 0.0001
Estimated Blood Loss (mL), mean ± SD	20.98 ± 13.52	27.86 ± 11.25	168.0 ± 127.3	< 0.0001
Transfusion Rate, n (%)	0 (0.0%)	1 (0.9%)	2 (1.5%)	> 0.9999
Catheter Duration (days), mean ± SD	6.6 ± 3.9	3.5 ± 3.0	6.3 ± 3.4	< 0.0001
Transient Incontinence, n (%)	2 (3.7%)	34 (31.2%)	16 (12.1%)	< 0.0001
Same-Day Discharge (days), n (%)	31 (57.4%)	12 (11.0%)	64 (48.5%)	< 0.0001

Table 1. Comparison of Perioperative Outcomes by Procedure Type. Data are presented as mean ± standard deviation or n (%). Continuous variables were compared using one-way analysis of variance or Kruskal–Wallis testing, as appropriate. Categorical variables were compared using Fisher's exact tests. Post-hoc comparisons were performed for outcomes with significant overall differences (not shown).

THU-CS7-1610

Impact of Sheath Size on Operative Efficiency and Complications in Laser Enucleation of the Prostate

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ABSTRACT: Introduction and Objective: Laser enucleation of the prostate (LEP) is routinely performed with 24 Fr, 26 Fr, and 28 Fr sheaths. While larger sheaths are thought to improve visualization, smaller sheaths may reduce urethral trauma and associated complications. Recent institutional experience with a 24 Fr sheath has demonstrated excellent intraoperative efficiency with minimal complications. We sought to evaluate the effect of sheath size on outcomes compared to a 26 Fr sheath. **Methods:** We performed a retrospective review of 503 ThuLEP and HoLEP cases at a single institution by two surgeons between 2023–2025. Patients were stratified by sheath size, 24 Fr (N = 273) and 26 Fr (N = 230). Sub-analysis was performed for prostate size > 150 g. Demographic variables, intraoperative parameters, and postoperative outcomes were compared. Statistical significance was assessed using the Mann-Whitney U test for continuous variables and chi-squared tests for categorical variables. **Results:** Baseline characteristics were similar, including BMI (p = 0.904), ASA score (p = 0.238), and antiplatelet/anticoagulant use (p = 0.29). The 24 Fr cohort was younger (median age 70 vs. 72, p = 0.016). The 26 Fr group had larger prostate volume (median size 117 vs. 83 g, $p < 0.00001$). Enucleation (31 vs. 40 min, $p < 0.00001$) and morcellation time (5 vs. 14 min, $p < 0.00001$) were shorter in the 24 Fr sheath cohort. There were fewer Clavien-Dindo complications Grade ≥ 2 in the 24 Fr cohort (25 vs. 42 patients, p = 0.003) including decreased transfusion rate (1 vs. 12 patients, $p < 0.001$). Urethral stricture and bladder neck contracture rates were low, without significant difference. In prostates > 150 g, there remained a decrease in

enucleation time (43.5 vs. 50 min, $p = 0.012$), but no difference in morcellation time. **Conclusions:** Use of a 24 Fr sheath for LEP is associated with no increase in enucleation/morcellation time, fewer postoperative complications, and no significant difference in urethral stricture or bladder neck contracture rates. Significant findings of enucleation time and postoperative complications were maintained when controlling for prostate size.

THU-CS7-1615

Sexual Function Outcomes after Aquablation for Benign Prostatic Hyperplasia: A Systematic Review

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ABSTRACT: Introduction and Objective: Current gold standard surgical therapies for benign prostatic hyperplasia (BPH) are effective at alleviating lower urinary tract symptoms but are often associated with sexual adverse events. Aquablation is a novel, minimally invasive BPH treatment with image-guidance, allowing targeted removal of prostatic tissue with preservation of sexual function. This review summarizes current literature on sexual adverse effects after Aquablation and compares its sexual safety profile to those of transurethral resection of the prostate (TURP), holmium laser enucleation of the prostate (HoLEP) and Rezum water vapor therapy. **Methods:** A systematic search of English language literature was conducted in PubMed (1809-present), Embase (1974-present), Cochrane CENTRAL Register of Controlled Trials (1998-present) up to May 8th, 2025. A total of 40 prospective studies including 23 complete reports and 17 abstracts were identified for data extraction and analysis. Preferred Reporting Items for Systematic Reviews and Meta-analysis guidelines were followed. **Results:** A total of 2459 patients who underwent aquablation had sexual health data collected. Aquablation was found to largely preserve antegrade ejaculation post-operatively, with rates of anejaculation and retrograde ejaculation ranging from 0% to 37%. Cases of erectile dysfunction were rare, with the highest recorded rate at 2%. Patient surveys, including the International Index of Erectile Function (IIEF) and Male Sexual Health Questionnaire (MSHQ) displayed no statistically significant changes from pre-operative baseline. Compared to TURP, patients undergoing aquablation experienced significantly higher rates of ejaculation preservation, and higher post-operative MSHQ scores. Compared to HoLEP, aquablation had higher rates of preserved antegrade ejaculation, but had no statistically significant differences in IIEF scores. Compared to Rezum, rates of antegrade ejaculation and IIEF scores were similar. **Conclusions:** Aquablation demonstrates favorable sexual function outcomes, with higher rates of ejaculation preservation compared to TURP and HoLEP and comparable outcomes to Rezum therapy.

THU-CS7-1620

Urinary Incontinence after TURP and Aquablation Increases the Risk of New Onset Depression and Anxiety: A Propensity Matched Cohort Study

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ABSTRACT: Introduction and Objective: To evaluate whether post-operative urinary incontinence (UI) following transurethral resection of the prostate (TURP) or Aquablation is associated with an increased risk of new-onset depression or anxiety. **Methods:** A retrospective propensity-matched cohort study was conducted using the TriNetX Research Network. Adult men undergoing TURP or Aquablation were identified using CPT codes. Patients with pre-existing psychiatric diagnoses or urinary incontinence were excluded. Postoperative UI within one year was defined using ICD-10 codes. The primary outcomes were new diagnoses of depression or anxiety within one year after surgery. Propensity score matching was performed to balance baseline demographics, and risk ratios with 95% confidence intervals were calculated. Kaplan–Meier analyses assessed time-to event outcomes. **Results:** After matching, 52,528 patients were included. Post-operative UI occurred in a subset consistent with published rates. New depression or anxiety diagnoses occurred in 17.2% of patients with post-operative UI compared with 11.7% without UI. Patients with post-operative UI were 47% more likely to be

diagnosed with depression or anxiety compared to patients without post operative UI. In comparing patients without post-operative UI, Aquablation patients had a 76% lower relative risk of new depression or anxiety compared to TURP patients. For patients with post-operative UI, the differences between Aquablation and TURP were not statically significant **Conclusions:** Postoperative urinary incontinence after TURP or Aquablation is associated with a higher likelihood of subsequent depression or anxiety diagnoses. Among patients without postoperative urinary incontinence, Aquablation was associated with lower rates of new depression or anxiety compared with TURP; however, this difference was not observed among patients who developed postoperative urinary incontinence. Recognition of urinary incontinence as both a functional and psychosocial postoperative complication may support routine mental health screening, early counseling, and multidisciplinary postoperative care. Prospective studies incorporating validated symptom measures are needed to further clarify the relationship between procedure type, postoperative urinary outcomes, and mental health sequelae.

THU-CS7-1625

Beyond Total Volume: The Case for Zone-Specific Prostate Assessment in Benign Prostatic Hyperplasia Surgical Planning

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ABSTRACT: Introduction and Objective: Surgical planning for benign prostatic hyperplasia (BPH) relies on accurate prostate morphology assessment, with prior MRI data increasingly available. Total prostate volume (TPV) guides pre-operative planning but incompletely accounts for individual anatomical and physiological variances. Parameters like transition zone volume (TZV) and transition zone index (TZI; TZV/TPV ratio) remain controversial due to mixed literature. We assessed the concurrence of various parameters to improve MRI prostatic measurements for surgical planning in BPH. **Methods:** A single-center retrospective chart review was conducted on all patients who underwent robot-assisted laparoscopic prostatectomy (RALP) between January 2018 and June 2023 with pelvic MRI within two years of surgery (n = 65). MRI-estimated TPV and TZV were obtained manually on axial and sagittal T2-weighted images, using the ellipsoid formula [V = (π/6) × longitudinal × transverse × anteroposterior]. Linear regression and coefficient of variation were used to determine associations among TZV, TPV, and TZI. Statistical significance was defined as $p < 0.05$. **Results:** Mean TPV was 49.63 ± 27.61 mL with a coefficient of variation (CV) of 0.56, compared to the more variable TZV of 20.49 ± 17.47 mL with a CV of 0.85. The mean TZI was 37.71 ± 11.43%, with a CV of 0.30. TPV and TZV strongly correlated overall, with an $R^2 = 0.92$. By size, TPV did not correlate well to TZV in small (<30 g; $R^2 = 0.30$) prostates but did correlate well in average (30–80 g; $R^2 = 0.70$) and large (>80 g; $R^2 = 0.85$) prostates. **Conclusions:** TZV was highly variable compared to both TPV and TZI, with the highest variability in average (30–80 g) prostates. Although TZV and TPV strongly correlated for average and large (>80 g) prostates, TPV poorly predicted TZV in small (<30 g) prostates. These findings support the incorporation of additional parameters to improve BPH surgical planning with MRI.

THU-CS7-1630

Percutaneous Nephrolithotomy versus Retrograde Intrarenal Surgery with Flexible and Navigable Suction Ureteral Access Sheath for Kidney Stones: A Systematic Review and Meta-Analysis

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ABSTRACT: Introduction and Objective: Percutaneous nephrolithotomy (PCNL) has long been considered the gold standard for treating kidney stones >2 cm. The recent introduction of flexible and navigable suction ureteral access sheath (FANS) has revolutionized retrograde intrarenal surgery (RIRS), potentially challenging PCNL's dominance. This systematic review and meta-analysis aimed to

compare the efficacy and safety of PCNL versus RIRS + FANS for kidney stone treatment. **Methods:** We systematically searched PubMed, Embase, Cochrane Library, and Web of Science databases through September 2025 for randomized controlled trials (RCTs) and high-quality comparative studies comparing PCNL with RIRS + FANS. Primary outcome was stone-free rate (SFR). Secondary outcomes included operative time, hospital stay, complication rates, postoperative pain, and quality of life. Meta-analysis was performed using fixed-effects models with risk differences (RD) and mean differences (MD) calculated. **Results:** Five high-quality studies involving >2900 patients were included, featuring one large international multicenter RCT. Meta-analysis demonstrated RIRS + FANS was non-inferior to PCNL in SFR (pooled RD: −0.014, 95% CI: −0.026 to −0.002, $p = 0.022$) with low heterogeneity ($I^2 < 25\%$). RIRS + FANS showed significant advantages in safety profile: lower transfusion rates (RD: −2.2%, $p = 0.021$), reduced postoperative hemoglobin drop (6.31 vs. 11.05 g/L, $p = 0.010$), less postoperative pain (1.97 vs. 3.41 VAS, $p < 0.001$), and shorter hospital stay (MD: −2.5 days, $p < 0.001$). However, RIRS + FANS required longer operative time (MD: +29 min, $p < 0.001$). Quality of life improvement significantly favored RIRS + FANS (MD: 4.8, $p < 0.001$). **Conclusions:** For 2–3 cm kidney stones, RIRS + FANS achieves non-inferior stone-free rates compared to PCNL while demonstrating superior safety, faster recovery, and better quality of life outcomes. Despite longer operative times, RIRS + FANS represents a viable first-line alternative to PCNL, offering patients a more minimally invasive option with excellent efficacy and enhanced safety profile.

THU-CS7-1635

Lessons Learned over Ten Years of Ambulatory PCNL: An Analysis of over 2700 Cases

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ABSTRACT: Introduction and Objective: Ambulatory PCNL (aPCNL) has been shown to be safe and efficacious in appropriate patients and has been performed at our ambulatory surgery centers (ASCs) since 2015. In this study, we aim to compare trends in patient selection and outcomes across our ten-year experience in aPCNL. **Methods:** We compared our aPCNL cases performed between July 1, 2015 to June 30, 2020 (Period 1) versus July 1, 2020 to June 30, 2025 (Period 2). Standard practices included ECIRS technique for renal access, hemostatic plug in the access tract, and surgeon-administered rib block for pain control, which remained consistent throughout the study period. Prospective data was analyzed via descriptive statistics, with statistical significance held at $p < 0.05$. **Results:** 2770 cases were available for analysis, with 30% (840) performed in Period 1 versus 70% (1930) in Period 2. In Period 1, aPCNL patients were younger (56.9 versus 58.6, $p = 0.002$), however were otherwise similar in comorbidities and total stone burden. The frequency of standard PCNL versus mini PCNL decreased in Period 2 (46% versus 72%, $p < 0.0001$) and the number of access attempts increased (1.12 versus 1.03, $p < 0.0001$). Cases in Period 2 had lower cost ($1284 versus $1771, $p < 0.0001$) as well as shorter access time (2.1 versus 4.1 min, $p < 0.0001$), operative time (91 versus 97 min, $p < 0.0001$), and fluoroscopy time (29 versus 88 s, $p < 0.0001$). **Conclusions:** Patient selection for aPCNL was similar across our ten years of experience, however cases in the later half tended to have increased likelihood of mini PCNL, increased access attempts, decreased cost, access time, operative time, and fluoroscopy time compared to the earlier half. Our data suggests that over time, patient care became more streamlined and cost effective.

Table 1.

	Period 1 (7/1/15–6/30/20)	**Period 2 (7/1/20–6/30/25)**	***p*-Value**
Age	56.9	58.6	$p = 0.002$
BMI	30.3	30.2	$p = 0.65$
Hypertension	58%	58%	$p = 0.8$
Diabetes	28%	27%	$p = 0.56$
Smoking	39%	38%	$p = 0.58$
Stone Burden (mm)	31.0	30.7	$p = 0.72$
Transfer Rate (%)	1.6%	1.5%	$p = 0.88$

% Standard (vs. mini PCNL)	72%	46%	$p < 0.0001$
Access attempts	1.03	1.12	$p < 0.0001$
Cost ($)	1771	1284	$p < 0.0001$
Access Time (min)	4.1	2.1	$p < 0.0001$
OR Time (min)	97	91	$p < 0.0001$
Fluoro Time (sec)	88	29	$p < 0.0001$

THU-CS7-1640

Early Outcomes of CVAC Aspiration System Use: Quality Improvement Analysis of the First 100 Patients

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ABSTRACT: Introduction and Objective: The CVAC aspiration system is a novel aspiration-assisted device designed to enhance stone clearance during endoscopic lithotripsy. Published data remain limited, and early institutional experiences require quality improvement (QI). This study reports the experience of a large academic center with CVAC usage. **Methods:** The first 100 patients undergoing endoscopic lithotripsy with the CVAC system were reviewed. All patients underwent 30-day-postoperative CT scan. Baseline patient demographics, procedural metrics (case length, basket use, laser system), and stone-related variables (number, linear burden, density, location including upper, middle, lower poles, ureter, UPJ, and renal pelvis) were analyzed. Multivariate regression assessed the association of stone variables with case length, CVAC duration, and percent clearance, adjusting for burden, density, location, number of stones, basket use, and laser system. **Results:** Among patients, 40.0% were male and 60.0% female with median age 56 (IQR:20) and BMI 30.0 (9.9). Median clearance was 96.0% (9.0%), with 77.0% achieving ≥90% stone-free status. Median case length was 79 (54.5) minutes, and median CVAC duration was 52 (45) minutes. Basket extraction was used in 30.6% of cases (median 1.5 passes). Median number of stones was 2 (2) with median linear burden 16 mm (14) and median density 1081 HU (548.5). On univariate analysis, case length and CVAC duration were positively associated with stone burden ($p < 0.001$), while clearance was negatively associated with burden ($p < 0.001$) and stone number ($p = 0.007$). Multivariate regression showed stone number remained negatively associated with clearance ($\beta = -4.27$, $p < 0.001$), whereas burden, density, and location were not significantly associated with case length, CVAC duration, or clearance. **Conclusions:** Rapid adoption of CVAC at a large academic center was a feasible and effective endeavor, achieving an 88.4% stone clearance. Higher number of stones was associated with lower clearance rates, while no other stone-related variable significantly affected QI outcomes. Larger multi-institutional studies may further refine CVAC protocols and optimize outcomes.

THU-CS7-1645

Practice Patterns in Post-Stone Surgery Imaging: Are We Reducing Radiation Exposure in Patients?

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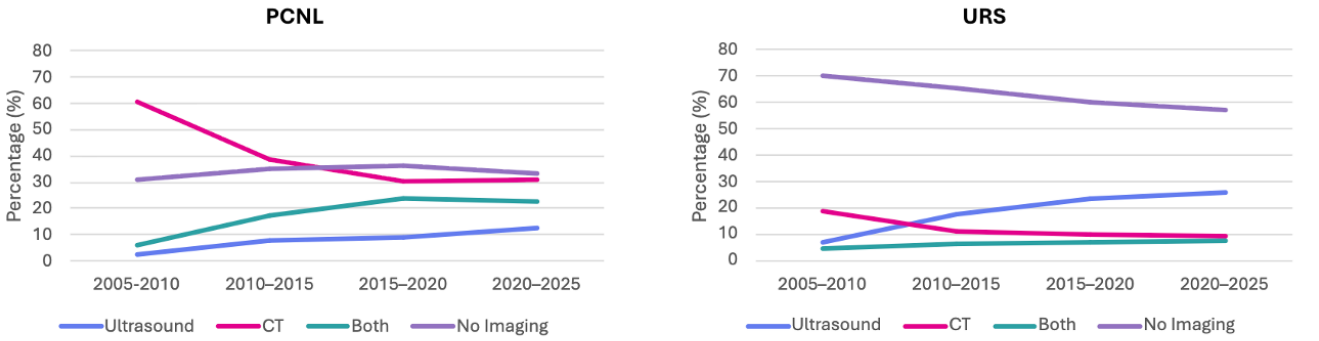
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ABSTRACT: Introduction and Objective: Percutaneous nephrolithotomy (PCNL) and ureteroscopy (URS) are widely utilized surgical interventions for nephrolithiasis. Postoperative imaging plays an integral role in monitoring residual stone burden, identifying complications, and guiding further management. However, imaging modalities carry different risks and benefits, including higher radiation exposure with computed tomography (CT). This study evaluates longitudinal trends in postoperative imaging practices among PCNL and URS patients. **Methods:** A retrospective cohort study was conducted using data from the U.S. Collaborative Network of

TriNetX. Adults (≥18 years) who underwent PCNL or URS between 2005 and 2025 were identified using ICD-10 and CPT codes. Trends in postoperative imaging were evaluated across 5-year intervals beginning in 2005. Imaging obtained within 3 months postoperatively was categorized as ultrasound-only, CT-only, both modalities, or no imaging. **Results:** A total of 34,578 PCNL and 322,380 URS patients were identified. In the PCNL cohort, CT-only imaging decreased substantially from 60.6% (2005–2010) to 30.9% (2020–2025). Ultrasound-only imaging increased from 2.5% to 12.7%, and combined imaging (CT + ultrasound) rose from 5.8% to 22.9%. The percentage of patients receiving no imaging remained relatively stable, ranging from 31.1% to 36.5%. In the URS cohort, the percentage of patients receiving no imaging was higher than PCNL but declined from 70.0% (2005–2010) to 57.4% (2020–2025). Ultrasound-only imaging increased from 7.2% to 25.8%, while combined imaging rose from 4.3% to 7.6%. CT-only imaging decreased from 18.5% to 9.2%. **Conclusions:** From 2005 to 2025, postoperative imaging following PCNL and URS has shifted from CT-only to ultrasound and multimodal imaging practices. Ultrasound is becoming increasingly used and may reduce cumulative radiation exposure in patients. This reflects evolving postoperative surveillance practice patterns and a growing awareness of radiation stewardship.

Figure 1: 3-Month Post-op Imaging Trends

	PCNL Cohort					URS Cohort				
Year	N	Ultrasound	CT scan	Both	No Imaging	N	Ultrasound	CT scan	Both	No Imaging
2005-2010	1,522	2.5%	60.6%	5.8%	31.1%	11,373	7.2%	18.5%	4.3%	70.0%
2010-2015	4,234	7.9%	38.6%	17.3%	35.1%	35,787	17.5%	10.8%	6.1%	65.6%
2015-2020	12,292	9.0%	30.5%	24.0%	36.5%	108,983	23.2%	9.7%	6.9%	60.2%
2020-2025	16,530	12.7%	30.9%	22.9%	33.5%	166,337	25.8%	9.2%	7.6%	57.4%



THU-CS7-1650

Urolithiasis Management in Spina Bifida: A Comparative Study of PCNL, URS, and Combined Modalities

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ABSTRACT: Introduction and Objective: This study aimed to compare outcomes of percutaneous nephrolithotomy (PCNL), ureteroscopy (URS), and combined approaches in the treatment of patients with and without spina bifida (SB). **Methods:** This retrospective cohort study utilized the TriNetX research network data for patients aged ≥18 years (2015–2024). Patients were stratified into cohorts by surgical procedures they had undergone: PCNLs, URSs, and mixed PCNLs/URSs. Demographics, comorbidities, and complications, after propensity matching, were compared between the SB and no SB population for each cohort. Statistical analysis was performed using Chi square and t-tests. **Results:** Patients with SB had an increased prevalence of comorbidities including obesity, diabetes, CKD, and COPD compared to those without SB. Furthermore, the URS and mixed URS/PCNL SB cohorts had a higher prevalence of hypertension and coronary artery disease. Demographic differences were primarily noted between SB and non-SB patients undergoing PCNL and mixed PCNL/URS (Table 1). Across cohorts, patients with SB had a greater risk of 30-day post-operative complications including fever, sepsis, and UTI. The mixed URS/PCNL SB population had a higher risk of ileus. Finally, SB patients had

an increased recurrence of nephrolithiasis and the need for repeat procedures across all cohorts (Table 2). **Conclusions:** As expected, management of kidney stones in patients with SB is complex as these patients often have more comorbidities. There also exists demographic disparities in patients with SB undergoing PCNL. Lastly, there are higher rates of complications with procedures and need for repeat procedures in patients with SB, signifying the importance of preoperative prognostication in this population.

Table 1: Demographics and comorbidities of patients with spina bifida compared to patients without spina bifida undergoing procedures for urolithiasis.

	PCNL			URS			Mixed PCNL/URS		
	SB	**No SB**	***p*-Value**	**SB**	**No SB**	***p*-Value**	**SB**	**No SB**	***p*-Value**
N	2093	25,024	-	3521	80,844	-	5976	121,479	<0.01
Age, Mean (SD)	47.7 (17.6)	56.8 (15.7)	<0.01	50.1 (18.4)	54 (17.3)	<0.01	49.8 (18.1)	54.6 (17.1)	<0.01
Gender, N (%)									
Male	1105 (53)	11,353 (45)	<0.01	2069 (47)	48,964 (49)	0.12	2908 (49)	58,513 (48)	0.02
Female	959 (46)	13,367 (53)		2158 (50)	49,091 (49)		2912 (49)	60,134 (50)	
Ethnicity, N (%)									
Non-Hispanic	1663 (79)	18,321 (73)	<0.01	3329 (76)	72,938 (72)	0.09	4626 (77)	88,267 (73)	<0.01
Hispanic	161 (8)	3019 (12)		323 (7)	9003 (9)		443 (7)	11,526 (9)	
Unknown	269 (13)	3684 (15)		707 (16)	18,692 (19)		907 (15)	21,686 (18)	
Race, N (%)									
White	1627 (78)	18,750 (75)	0.01	3394 (78)	76,291 (76)	0.01	4642 (78)	91,785 (76)	<0.01
Black	260 (12)	1930 (8)		426 (10)	6563 (7)		638 (11)	8271 (7)	
Asian	24 (1)	1173 (5)		60 (1)	4803 (5)		82 (1)	5776 (5)	
Other	66 (3)	1041 (4)		148 (3)	3051 (3)		184 (3)	3728 (3)	
Unknown	116 (6)	2130 (9)		305 (7)	8510 (8)		393 (7)	10,312 (8)	
Overweight and obese, N (%)	595 (28)	6123 (24)	<0.01	1629 (37)	25,154 (25)	<0.01	2090 (35)	30,022 (35)	<0.01
Diabetes, N (%)	435 (21)	6123 (24)	0.01	1093 (25)	20,466 (20)	<0.01	1441 (24)	25,392 (21)	<0.01
Hypertension, N (%)	981 (47)	11,631 (46)	0.73	2400 (55)	43,676 (43)	<0.01	3162 (53)	53,220 (44)	<0.01
CKD, N (%)	368 (18)	3389 (14)	<0.01	720 (17)	11,219 (11)	<0.01	988 (17)	13,785 (11)	<0.01
CAD, N (%)	322 (15)	3292 (13)	0.06	896 (21)	14,370 (14)	<0.01	1142 (19)	17,074 (14)	<0.01
CVD, N (%)	350 (17)	1721 (7)	<0.01	827 (19)	7263 (7)	<0.01	1093 (18)	8690 (7)	<0.01
COPD, N (%)	555 (27)	3909 (16)	<0.01	1579 (36)	18,846 (19)	<0.01	1993 (33)	22,050 (18)	<0.01

Abbreviations: PCNL—percutaneous nephrolithotomy, URS—ureteroscopy, SD—standard deviation, CKD—chronic kidney disease, CAD—coronary artery disease, CVD—cerebrovascular disorder, COPD—chronic obstructive pulmonary disease

Table 2: Relative risk of complications and repeat kidney stones or procedures in patients with spina bifida compared to those without spina bifida.

	Procedure					
	PCNL		**URS**		**Mixed PCNL/URS**	
	RR (95% CI)	***p*-Value**	**RR (95% CI)**	***p*-Value**	**RR (95% CI)**	***p*-Value**
30-day complications						
Fever	2.85 (2.18, 3.74)	0.01	2.15 (1.73, 2.67)	0.01	2.34 (1.96, 2.80)	<0.01
Sepsis	3.95 (3.08, 5.06)	0.01	2.76 (2.27, 3.37)	0.01	3.15 (2.67, 3.72)	<0.01
UTI	2.68 (2.34, 3.08)	0.01	1.88 (1.69, 2.08)	0.01	2.20 (2.01, 2.40)	<0.01
Bleeding	1.18 (0.53, 2.63)	0.68	1.00 (1.00, 1.00)	1.00	1.21 (0.60, 2.46)	0.59
Ileus	1.40 (0.62, 3.15)	0.41	1.70 (0.78, 3.71)	0.18	2.80 (1.36, 5.76)	0.01

Subsequent Stones or repeat Procedures in 5 years						
Stones	1.15 (1.11, 1.20)	<0.01	1.23 (1.19, 1.27)	<0.01	1.19 (1.16, 1.23)	<0.01
Repeat PCNL or URS	1.92 (1.65, 2.22)	<0.01	1.84 (1.61, 2.10)	<0.01	1.97 (1.77, 2.21)	<0.01

Abbreviations: PCNL—percutaneous nephrolithotomy, URS—ureteroscopy, RR—relative risk, CI—confidence interval; [a]Data is propensity-score matched.

THU-CS7-1655

Does Tract Size Impact Patient Experience? A Comparison of Standard PCNL versus Mini PCNL

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ABSTRACT: Introduction and Objective: Mini-percutaneous nephrolithotomy (mPCNL) has been proven as a safe and efficacious means to treat significant stone burden. In this study we aim to compare patient outcomes following mPCNL and standard PCNL. **Methods:** We analyzed patients who underwent either standard PCNL (24–30 Fr) or mPCNL (14–23 Fr) at two free-standing ambulatory surgery centers (ASCs) between July 2020 and June 2025. Standard practices included ECIRS technique for renal access, ureteral stent for drainage, hemostatic plug in the access tract, and surgeon-administered rib block for pain control. Prospective data was analyzed via descriptive statistics, with statistical significance held at $p < 0.05$. **Results:** 1923 cases were available for analysis, with 49% (944) standard PCNL versus 51% (979) mPCNL cases. Standard PCNL cases had significantly higher stone burden (40.24 versus 21.56 mm, $p < 0.0001$). Time to access was shorter in standard PCNL cases (1.52 versus 2.04 min, $p < 0.001$); however, operating room time (93.26 versus 89.05 min, $p < 0.01$) and fluoroscopy time (33.48 versus 26.15 s, $p < 0.0001$) were longer. Standard PCNL cases tended to have a greater number of dilated access tracts, with an average of 1.14 versus 1.05 ($p < 0.0001$). Estimated blood loss (EBL) was higher in standard PCNL (40.88 versus 22.41 mL, $p < 0.0001$). While PACU time was similar (78.81 versus 77.23 min, $p = 0.228$), mPCNL patients required less pain medications while in PACU (17.78% versus 24.15%, $p < 0.0005$). A greater number of standard PCNL patients required hospital transfer (2.86% versus 1.23%, $p < 0.05$). **Conclusions:** Patients undergoing mPCNL tended to have decreased OR time, fluoroscopy time, and EBL compared to patients undergoing standard PCNL. mPCNL patients also tended to have less post-operative pain medication requirement and lower rate of hospital transfer. Our data suggests that mPCNL improves patient experience in appropriately selected cases.

Table 1.

	Standard PCNL (*n* = 944)	**Mini PCNL (*n* = 979)**	***p*-Value**
Stone Burden (mm)	40.24	21.56	$p < 0.0001$
Access Time (min)	1.52	20.4	$p < 0.001$
Operating Room Time (min)	93.26	89.05	$p < 0.01$
Fluoroscopy Time (sec)	33.48	26.15	$p < 0.0001$
Dilated Access Sites (#)	1.14	1.05	$p < 0.0001$
Estimated Blood Loss (mL)	40.88	22.41	$p < 0.0001$
PACU Time (min)	78.71	77.23	$p = 0.228$
% Requiring Pain Meds in PACU	24.15%	17.78%	$p < 0.0005$
Transfer Rate (%)	2.86%	1.23%	$p < 0.05$
Cost ($)	1550.90	1021.04	$p < 0.0001$

Mini Podium Session 6: Urodynamics/Lower Tract Dysfunction, Female Pelvic Medicine, and Infection and Inflammation

FRI-CS9-1315

Positive Pre-Operative Urine Cultures Are A Predictor of Post-Operative Sepsis

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ABSTRACT: Introduction and Objective: Endoscopic urologic surgery is associated with a variety of known post-operative complications including both urinary tract infections (UTI) and sepsis. Prior literature has documented the incidence of UTI and sepsis following endoscopic interventions as <10% and <4% respectively. Pre-operative urine cultures are typically obtained to guide antibiotic therapy in the pre-/peri-operative setting. We aim to evaluate the role of pre-operative urine cultures in identifying patients at higher risk of developing post-operative UTI or sepsis treated at hospitals cared for by a urology training program. **Methods:** Patients were identified using morbidity-and-mortality(M&M) conference data between 2019–2025 at two different hospitals where our urology residency training program is based. Retrospective chart review was performed to extrapolate patient-specific characteristics as well as information regarding their urine culture data and surgical outcomes. **Results:** 45 patients were presented at M&M conferences over 6 years who sustained complications following urologic intervention. 35 of 45 patients (78%) post-operatively with UTI or sepsis. Average age was 57.8 years, there were 12 males and 33 females (73% female) identified. 22 patients had a positive pre-operative urine culture within 30 days of planned urologic intervention and all but one patient received the correct pre-operative antibiotics based on their culture data. Patients that did not receive the correct antibiotics did not present with UTI or sepsis. Of 35 patients with either UTI or sepsis, 21 (60%) had a positive pre-operative urine culture that was treated and 14 (40%) had a negative pre-operative urine culture. Patients with a positive pre-operative urine culture were significantly more likely to have a postoperative complication of UTI or sepsis (p = 0.25). **Conclusions:** In our cohort of patients presented at M&M conferences with post-procedure complications, a positive pre-operative urine culture was associated with increased likelihood of post-operative UTI or sepsis even when receiving pre- and peri-operative antibiotics.

FRI-CS9-1320

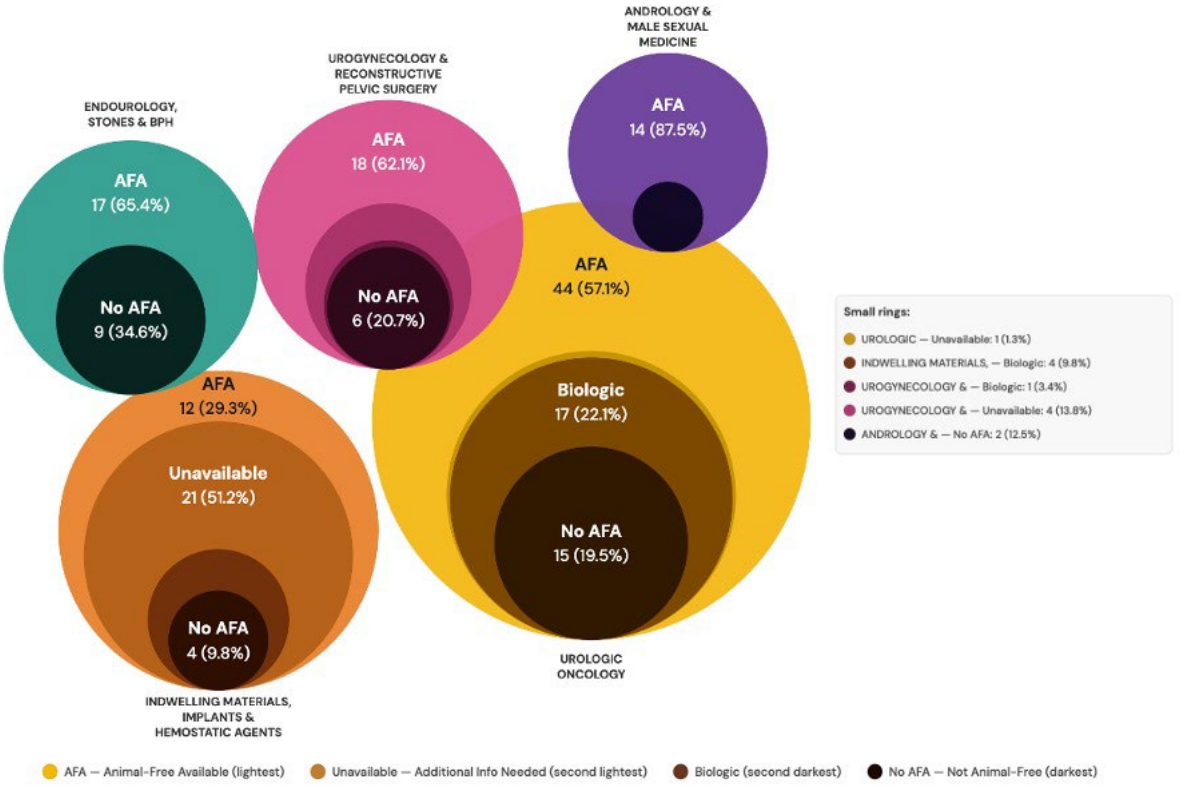
Implications of Alpha-Gal Syndrome in Urologic Management

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ABSTRACT: Introduction and Objective: Alpha-gal syndrome (AGS) is an IgE-mediated allergy to galactose-α-1,3-galactose, typically triggered by Lone Star tick bites. Sensitized patients may experience urticaria, anaphylaxis, and chronic inflammation from mammalian-derived medications and surgical materials. Despite growing prevalence, no published resources address AGS in urologic care. This study aimed to assess the safety of urologic products for AGS patients. **Methods:** A list of 210 urologic medications/materials was generated by the authors and refined by six urologists. A Pill Clarity (pillclarity.org) pharmacist conducted ingredient screening, and classified products as having animal product-free alternatives (AFA), no AFA, or as Biologics. Specific brand/generic drugs were not reported due volatility in formulation/manufacturers and ingredient sourcing. Biologics received separate designation due to variable risk based on cell line derivations. Descriptive statistics were used to assess AFA by urologic subspecialty/use. **Results:** Common mammalian-derived excipients (e.g., lactose, gelatin) are identified in numerous urologic products, often without clear labeling. Overall, only 62% of analyzed urologic products had verified AFA. Andrology had the highest AFA rate (88%), while Urologic Oncology had the lowest AFA (57%) and highest Biologic (23%) proportions. Renal cancer management was most constrained, lacking AFA among immunotherapies and most tyrosine kinase inhibitors. Endourology and Urogynecology/Reconstructive Pelvic Surgery had AFA rates of 64% and 61%, respectively. Of the analyzed indwelling materials (e.g., catheters), 53% were unverifiable due to lot-specific profiles. (Fig. 1).

Conclusions: Urologic management involves numerous potential reaction triggers for AGS patients. AGS-safe options are most limited amongst urologic oncologic medications; however, indeterminant safety of indwelling products pose underappreciated risk across urology. Safe urologic management of the growing AGS population will require provider education, medical record flagging, and standardized labeling transparency.



FRI-CS9-1325

IgA Vasculitis Presenting as Acute Orchitis in an 81-Year-Old: A Rare Cause of Acute Scrotal Pain

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ABSTRACT: Introduction and Objective: Acute scrotal pain is a common urologic emergency most often attributed to testicular torsion, epididymo-orchitis, or trauma. IgA vasculitis is a small-vessel vasculitis that classically affects children and rarely presents in older adults. Genitourinary involvement is uncommon and may mimic other causes of the acute scrotum. We present a rare case of IgA vasculitis presenting as acute orchitis in an elderly patient. **Methods:** An 81-year-old male presented with acute onset right testicular pain and swelling concerning for testicular torsion. On examination, the testicle was tender and enlarged, and the patient also had a palpable purpuric rash on the lower extremities. Scrotal Doppler ultrasound demonstrated preserved testicular blood flow with a small reactive hydrocele and inflammatory changes, effectively excluding torsion and suggesting orchitis. Given the presence of systemic purpura and scrotal inflammation, IgA vasculitis with genitourinary involvement was suspected. Elevated serum IgA and skin and renal biopsies were consistent with IgA vasculitis. The patient was treated with supportive therapy and corticosteroids with subsequent improvement in testicular symptoms. **Results:** This case highlights an unusual presentation of IgA vasculitis in an elderly patient with acute scrotal pain initially concerning for torsion. Recognition of systemic findings and appropriate imaging allowed for accurate diagnosis and avoided unnecessary surgical intervention. **Conclusions:** IgA vasculitis should be considered in the differential diagnosis of acute orchitis, particularly when associated with systemic manifestations such as purpura or gastrointestinal symptoms. Although rare in adults, this

condition can mimic surgical causes of acute scrotum. Awareness of this presentation may facilitate timely diagnosis and appropriate management.

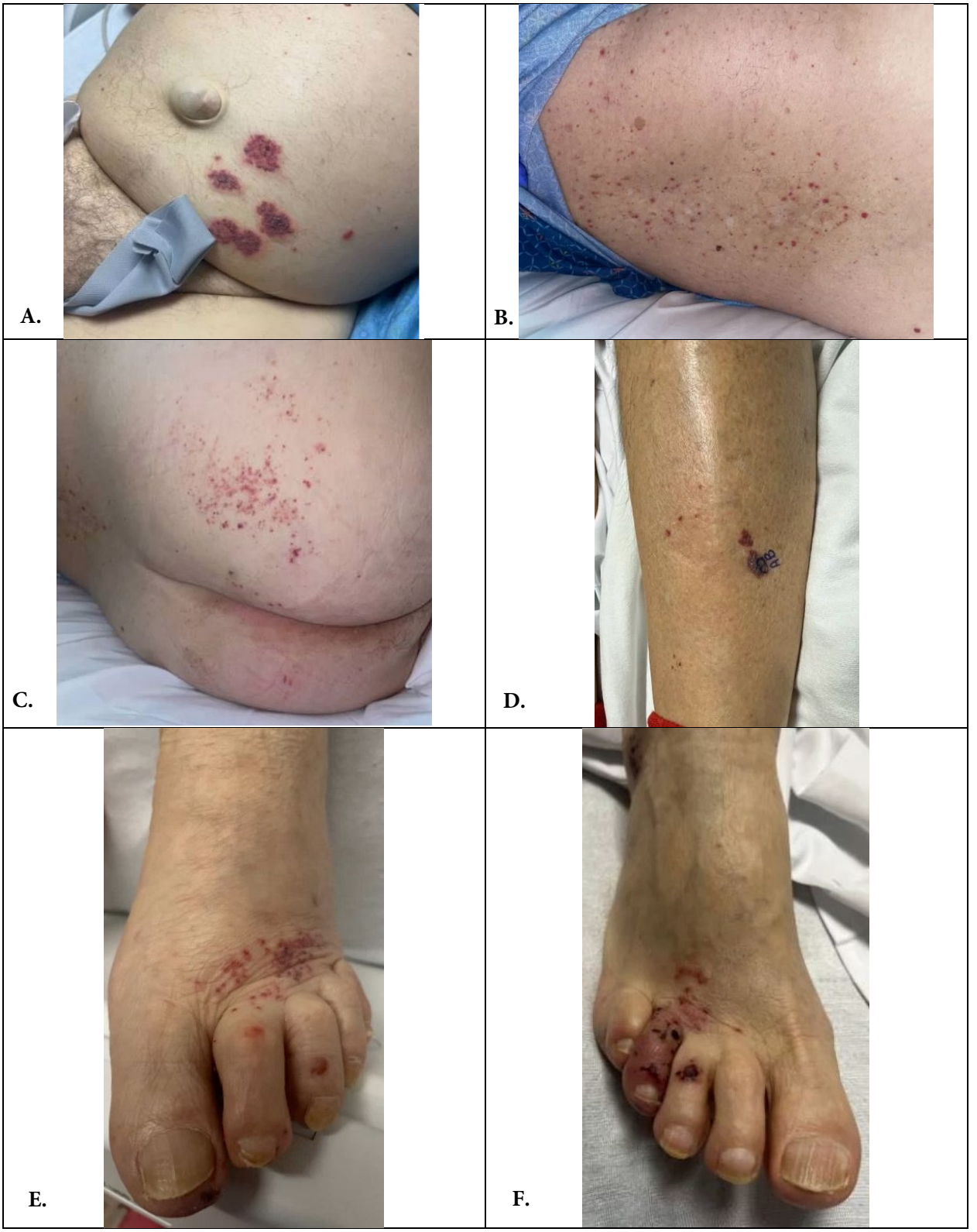


Figure 1: Cutaneous manifestations of IgA vasculitis (A–F). Clinical photographs demonstrating non-blanching palpable purpura in multiple body regions, including the abdomen (**A**), back (**B**), posterior trunk (**C**), left lower extremity (**D**), and bilateral feet (**E**,**F**). The lesions represent classic dependent purpura associated with leukocytoclastic vasculitis. Skin biopsy of similar lesions confirmed IgA-dominant immune complex deposition, supporting the diagnosis of IgA vasculitis.

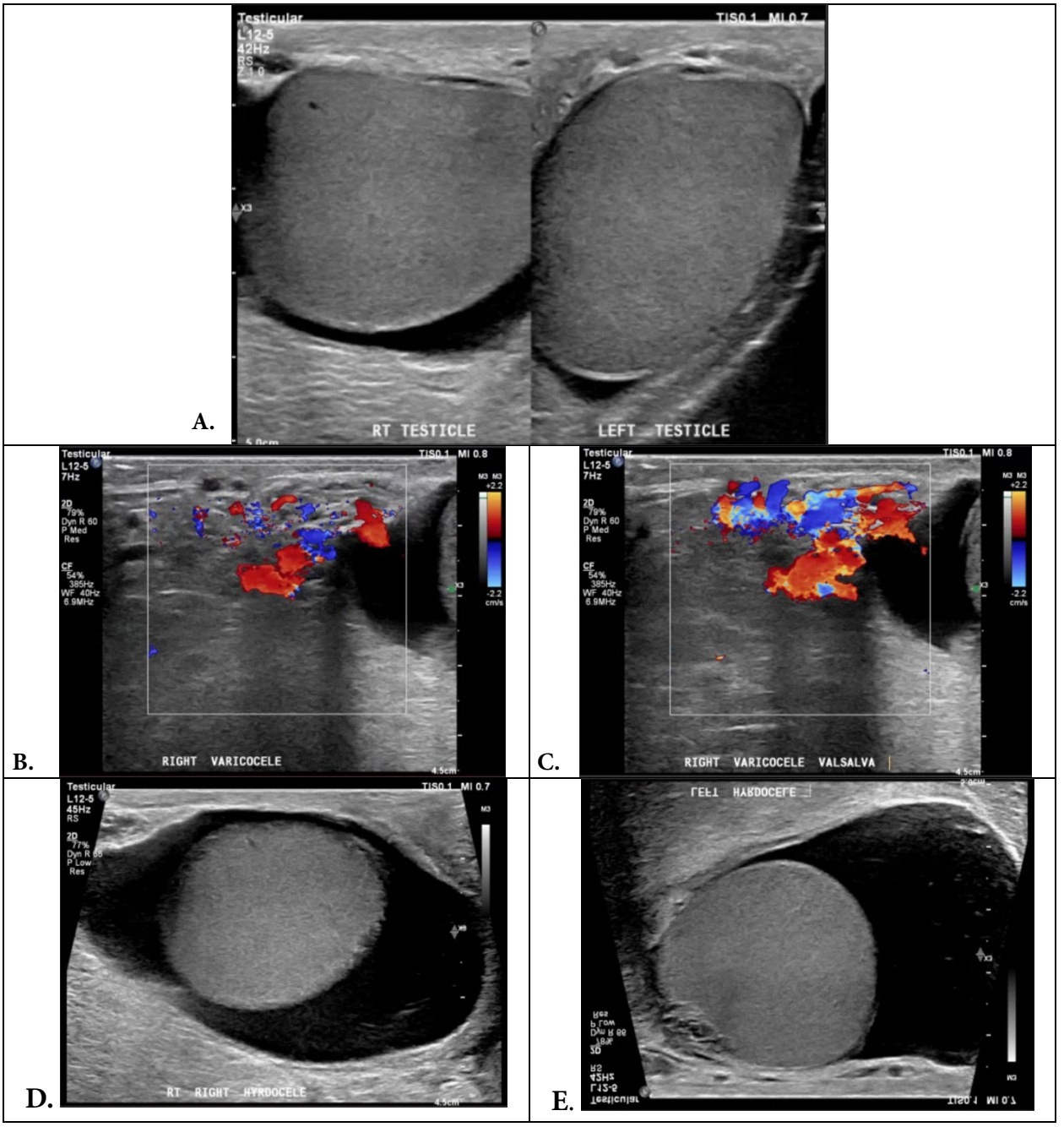


Figure 2: Scrotal ultrasound findings in IgA vasculitis with testicular involvement (A–E). Scrotal ultrasound demonstrating preserved testicular architecture with bilateral testes (**A**), right-sided varicocele (**B**), increased venous flow during valsalva consistent with varicocele (**C**), and small bilateral hydroceles (**D**,**E**). Importantly, doppler imaging demonstrated preserved testicular perfusion and no evidence of torsion, abscess, or infarction. These findings supported a non-surgical inflammatory etiology of scrotal pain in the setting of systemic IgA vasculitis.

FRI-CS9-1330

Cephalosporin Antibiotic Resistance in Urinary Tract Infections Following Radical Cystectomy

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ABSTRACT: Introduction and Objective: Urinary tract infections (UTIs) are a common complication after radical cystectomy (RC). AUA Best Practice Statement recommends a single perioperative dose of antibiotics, commonly first- or second-generation cephalosporins, for prophylaxis. At our institution, patients without a history of prior infection are primarily given cefotetan, a second-generation cephalosporin. Here, we report on postoperative UTI pathogen antibiotic susceptibility and whether cefotetan provided sufficient coverage for patients undergoing RC. **Methods:** Retrospective chart review of patients who underwent RC at a single institution between July 2022 and November 2025 was conducted. Patients who had a UTI, defined as a positive urine culture, within 30 (early) or 90 days (late) after surgery were identified. The intraoperative antibiotic, urine culture organism, and susceptibilities were extrapolated for analysis. **Results:** A total of 158 patients who underwent RC were identified. All patients received intraoperative cefotetan or culture directed antibiotics for prior infections. A postoperative UTI occurred in 52 patients (33%), 35 of which were early (67%) and 17 (33%) late. Of 111 patients who received cefotetan, 37 (33%) developed a UTI with 14 (35%) caused by organisms susceptible to cefotetan; the remaining 23 (65%) were due to resistant organisms, largely Enterococcus (Table 1). An alternative intraoperative antibiotic was given to 47 patients, of whom 15 (32%) developed a UTI. However, in the alternative group, 66% were secondary to organisms susceptible to their prophylactic antibiotic. **Conclusions:** UTI rates following RC were similar between patients receiving cefotetan versus other antibiotics. However, a significant proportion of UTIs in the cefotetan group were due to cephalosporin-resistant organisms. Broader prophylaxis, namely piperacillin-tazobactam, should be considered in all patients, not only those with a prior infection history.

Table 1: Urinary tract infection (UTI) rates by intraoperative antibiotic and proportion of each caused by susceptible organisms.

Intraoperative Antibiotic (*n* = 158)	**Total UTIs**	**Early UTIs (30 D)**	**Late UTIs (30–90 D)**	**Isolated Organism SUSCEPTIBLE to Antibiotic**	**Isolated Organism RESISTANT to Antibiotic**
Cefotetan 111 (70%)	37 (33%)	24 (65%)	13 (35%)	14 (35%)	23 (65%)
Other* 47 (30%)	15 (32%)	11 (73%)	4 (27%)	10 (67%)	5 (33%)

***Other Antibiotic Usage** (*n* = 47)

- Piperacillin-Tazobactam—23
- Ampicillin + Gentamicin + Fluconazole—4
- Cefazolin—3
- Clindamycin—2
- Clindamycin + Gentamicin—2
- Vancomycin + Piperacillin-Tazobactam—2
- Piperacillin-Tazobactam + Fluconazole—2
- Cefepime + Metronidazole—1
- Clindamycin + Metronidazole—1
- Daptomycin—1
- Gentamicin + Vancomycin—1
- Levofloxacin—1
- Levofloxacin + Metronidazole—1
- Vancomycin + Cefepime—1
- Vancomycin—1
- Not specified—1

Sex-Specific Associations between Skeletal Muscle Mitochondrial Function and Overactive Bladder in Older Adults—The Study of Muscle, Mobility and Aging

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ABSTRACT: Introduction and Objective: Overactive bladder (OAB) and urinary incontinence (UI) are associated with reduced muscle strength in older adults. We investigated whether measures of mitochondrial function from thigh muscle biopsies is associated with OAB and urgency UI severity in community-dwelling older adults. **Methods:** This cross-sectional study included 630 adults aged 70–89 years from the Study of Muscle, Mobility, and Aging (SOMMA). Skeletal muscle mitochondrial bioenergetics were quantified by respirometry, including maximal oxidative phosphorylation with and without fatty acids (Max OXPHOSCI + CII, Max OXPHOSCI + CII + FAO) and NADH-supported proton leak (LeakCI). OAB severity was the sum of urgency, daytime frequency, nocturia, and urgency UI from the 10-item LURN Symptom Index (LURN SI-10). Analyses were sex stratified, with effects reported per sex-specific standard deviation (SD). Linear and logistic regression models assessed associations of mitochondrial bioenergetics with OAB severity and at least weekly urgency UI, adjusting for sociodemographic, clinical, and site variables. Sex interactions were tested. **Results:** Among men, each 1-SD increment in LeakCI was associated with a 0.46-point lower OAB subscore (95% CI: −0.71, −0.21) (Table 1). Higher LeakCI, Max OXPHOSCI + CII, and Max OXPHOSCI + CII + FAO were also associated with lower odds of urgency UI in men but not women. For each 1-SD increment in LeakCI, the odds of urgency UI were lower by 65% (95% CI: 0.20, 0.58). The association between all mitochondrial measures and urgency UI varied by sex. In sensitivity analyses, associations were unchanged after further adjustment for cardiolipin, a marker of mitochondrial density. **Conclusions:** Mitochondrial bioenergetics in thigh skeletal muscle are associated with OAB symptom severity, particularly urgency UI, among older men. These findings highlight potential sex-specific mitochondrial bioenergetic contributions to OAB and novel intervention targets warranting further study.

Table 1: Associations of Skeletal Muscle Mitochondrial Bioenergetics with LURN SI-10 Overactive Bladder Subscore and At Least Weekly Urgency Urinary Incontinence in Older Men (N=261) and Women (N=369) (≥70 years).

	Men		Women		P-interaction
Overactive Bladder Subscore	β (95% CI)	P value	β (95% CI)	P value	by sex
$Leak_{CI}$	-0.46 (-0.71, -0.21)	**<0.001**	0.04 (-0.29, 0.36)	0.83	0.05
Max $OXPHOS_{CI+CII}$	-0.25 (-0.51, 0.00)	0.05	0.09 (-0.24, 0.41)	0.60	0.06
Max $OXPHOS_{CI+CII+FAO}$	-0.30 (-0.63, 0.02)	0.07	0.16 (-0.23, 0.55)	0.42	0.05
At Least Weekly Urgency Urinary Incontinence					
	Men		**Women**		**P-interaction**
	OR (95% CI)	**P value**	**OR (95% CI)**	**P value**	**by sex**
$Leak_{CI}$	0.35 (0.20, 0.58)	**<0.001**	0.97 (0.69, 1.36)	0.86	**0.01**
Max $OXPHOS_{CI+CII}$	0.45 (0.28, 0.71)	**0.001**	1.00 (0.71, 1.40)	1.00	**0.01**
Max $OXPHOS_{CI+CII+FAO}$	0.47 (0.26, 0.79)	**0.007**	1.03 (0.67, 1.58)	0.89	**0.02**

Beta coefficients calculated per 1 standard deviation using multivariable linear regression models and odds ratios calculated per 1 standard deviation using multivariable logistic regression models. P for interaction by sex calculated using cross-product term. Models adjusted for age, site, height, weight, height*weight, race, education, smoking, alcohol, comorbidity count, number of medications, mean daily step count, and further adjusted for # of pregnancies, # of live births, and hormone replacement therapy for women.

Abbreviations: β, beta coefficient; CI, confidence interval; $Leak_{CI}$, proton leak through mitochondrial complex I; Max $OXPHOS_{CI+CII}$, maximal oxidative phosphorylation capacity through complexes I and II; Max $OXPHOS_{CI+CII+FAO}$, maximal oxidative phosphorylation capacity through complexes I and II with fatty acid oxidation substrates available; OR, odds ratio

FRI-CS9-1340

A Scoping Review on the Role of Ischemia and Oxidative Stress in Lower Urinary Tract Dysfunction, from Mechanisms to Therapeutic Targets

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ABSTRACT: Introduction and Objective: Emerging evidence suggests ischemia and oxidative stress are critical but poorly defined mechanisms underlying lower urinary tract symptoms (LUTS), including OAB, BOO, BPS/CPPS, and DU. This scoping review maps literature on ischemia/oxidative stress in LUTS, summarizing experimental models, biomarkers, proposed mechanisms of bladder dysfunction, and therapeutic targets. **Methods:** PRISMA-ScR guidelines were adhered to. Searches developed with a medical librarian were run in PubMed/MEDLINE, Web of Science, Embase, and Scopus for studies linking LUTS with ischemia or oxidative stress. *In vitro*, *ex vivo*, animal, and human studies were included; benign prostatic enlargement without ischemia and purely neurogenic LUTS were excluded. Two authors screened studies, a third resolved conflicts, and five performed standardized data extraction. **Results:** 164 studies were included; OAB was most studied, followed by BOO, BPS/CPPS, DU, and LUTS. Rat and mouse models predominated, inducing ischemia through BOO, vascular injury, and oxidative stress through intravesical irritants. Animal studies evaluated biomarkers like 8-hydroxy-2′-deoxyguanosine, malondialdehyde, and 3-nitrotyrosine. Human studies assessed urinary biomarkers, antioxidant capacity, and inflammatory cytokines to stratify dysfunction and predict response. Mechanisms included receptor signaling, neurodegeneration, apoptosis, and inflammation. Ischemia severity and duration determined progression from overactivity to underactivity. Therapies studied included PDE5 inhibitors, α1-adrenoceptor antagonists, antioxidants, phytochemicals, hormones, neuromodulators in animal models, with limited benefit in humans for α1-antagonists. **Conclusions:** Ischemia-induced oxidative injury contributes LUTS through overlapping pathways involving neurodegeneration, apoptosis, angiogenesis, and inflammation at the level of the detrusor muscle, vascular structures, and nerves. Future investigation should study DU, standardize biomarkers and endpoints, and adequately power translational research.

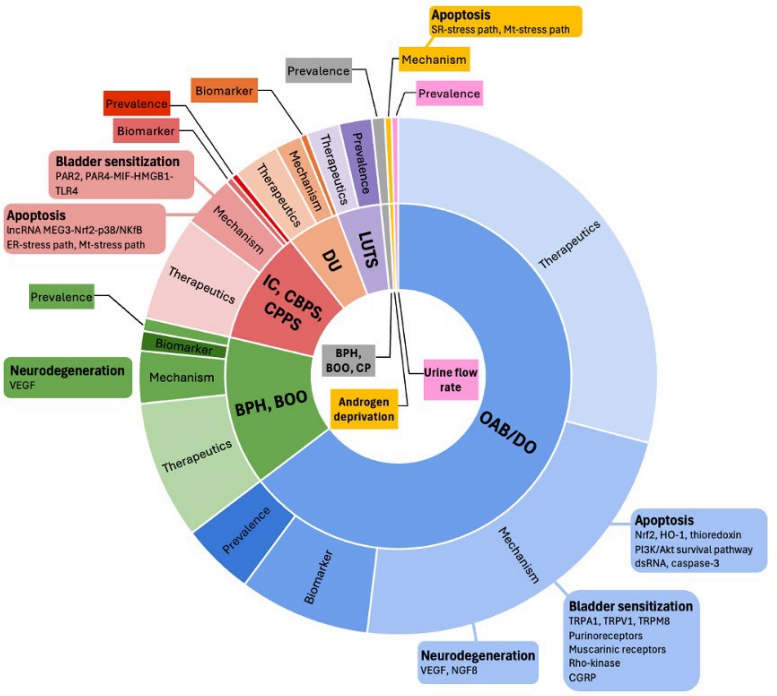


Figure 1. Distribution of studies by clinical condition, study focus, and mechanistic pathway

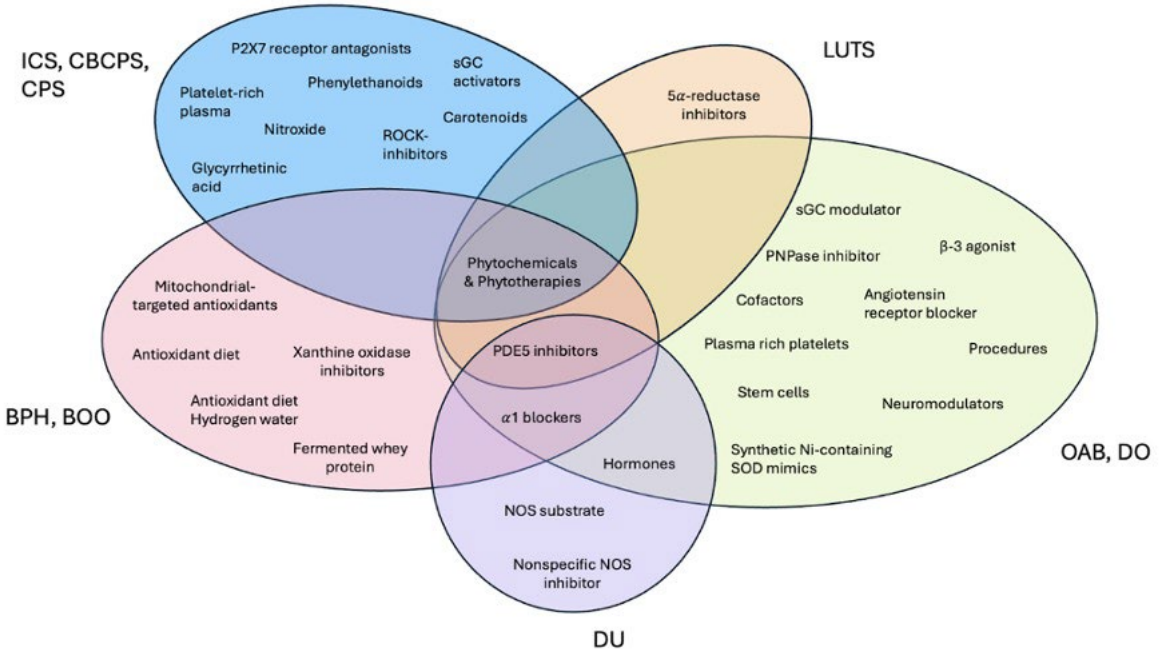


Figure 2. Therapeutics by clinical condition

FRI-CS9-1345

Predictors of 2-Week Post-Void Residual after Intradetrusor OnabotulinumtoxinA: A Sex- and Neurogenic-Stratified Analysis

S. Patel[1], E. Rosario[1] and A. Smith[2]

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ABSTRACT: Introduction and Objective: Urinary retention rates after intradetrusor OnabotulinumtoxinA (BTX-A) peak at 2 weeks, yet risk stratification by sex and neurogenic status remains limited. We evaluated predictors of 2-week post-void residual (PVR) and differences by sex and neurogenic bladder status (e.g., volitionally voiding multiple sclerosis, spina bifida, spinal cord injury) using the largest retrospective cohort to date. **Methods:** We reviewed all BTX-A procedures (OR and office) at a single academic institution from 2020–2025, excluding patients who required preprocedural catheterization or had prior pelvic radiation. 2-week PVR was analyzed using multivariable regression of demographics and urodynamic parameters, adjusting for total injections per patient, with subgroup analyses by sex-assigned-at-birth and neurogenic status. **Results:** Among 2282 procedures across 824 patients, median 2-week PVR was 16.7 mL (IQR 6 –34 mL). Preprocedural PVR predicts increased 2-week PVR in females (β = 0.59/mL, 95% CI [0.30, 0.88]) and non-neurogenic patients (β = 0.55/mL, [0.28, 0.83]) but not in males or neurogenics. Similarly, greater BTX-A dose was associated with higher PVR in females (β = 25.7 mL/100 U, [6.16, 45.2]) and non-neurogenic patients (β = 28.1 mL/100 U, [10.5, 45.6]). In females (n = 790), lower BMI (β = −1.21/kg/m^2, [−2.13, −0.29]), OR setting (β = 23.4, [4.31, 42.5]), lower Qmax (β = −1.25/mL/s, [−1.94, −0.56]), and higher Pdet at Qmax (β = 0.56/cmH_2O, [0.14, 0.98]) associate with increased PVR. In males (n = 34), higher PVR was associated with larger bladder volume at strong urge (β = 7.52/mL, [2.19, 12.9]), lower Pdet at Qmax (β = −8.34/cmH_2O, [−12.9, −3.76]), and smaller bladder capacity (β = −2.97/mL, [−5.64, −0.30]) but negatively associate with detrusor overactivity (DO) (β = −238, [−452, −23.7]) and incontinence with DO (β = −995, [−1550, −445]). In non-neurogenics (n = 772), lower Qmax (β = −1.08/mL/s, [−1.74, −0.42]), reduced voiding efficiency (β = −0.57, [−1.07, −0.06]), and OR setting (β = 31.0, [13.9, 48.2]) correlate with higher PVR. Among neurogenics (n = 52), lower Qmax (β = −17.4/mL/s, [−31.5, −3.26]) and incontinence with DO (β = 204, [3.05, 405]) predicted higher PVR. **Conclusions:** Pre-procedural PVR and BTX-A dose were consistent predictors of elevated 2-week PVR in females and non-neurogenic patients. These findings support sex- and neurogenic-specific risk stratification and dose considerations prior to BTX-A injection.

FRI-CS9-1350

Durability and Predictors of Repeat Injection after Intradetrusor OnabotulinumtoxinA for Overactive Bladder

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[1]Perelman School of Medicine, University of Pennsylvania, Philadelphia, PA, USA; [2]University of Pennsylvania Health System, Philadelphia, PA, USA

ABSTRACT: Introduction and Objective: OnabotulinumtoxinA (BTX-A) is widely used for refractory overactive bladder (OAB), but retreatment intervals and predictors remain unclear in U.S. populations. This study aims to identify factors influencing durability and retreatment timing to guide BTX-A treatment in OAB. **Methods:** We performed a retrospective review of 2282 BTX-A procedures across 824 patients with OAB at a tertiary academic center from 2020–2025. Demographics and procedure characteristics were collected. Outcomes included total number of BTX-A procedures, dosing, treatment setting, and interval to retreatment. Multivariate models assessed predictors of retreatment patterns. **Results:** The cohort was predominantly female (95.9%) and white (73.7%), with mean age of 66 years. Patients underwent 2.9 BTX-A procedures on average, at a mean interval between injections of 286.6 days. Time to retreatment decreased with higher cumulative injections (β = −23.95 days per injection, $p < 0.01$) and was not impacted by age ($p = 0.72$). Those with ER visits for adverse events were less likely to undergo retreatment (OR 0.57, $p < 0.01$), while those reporting subjective symptom improvement were more likely to undergo retreatment (OR 1.43, $p < 0.01$). Among patients with multiple injections, dosage rarely decreased after an increase, with current dose predicting future dose (β = 0.73, $p < 0.01$). Treatment setting correlated with previous setting, with previous injections in the operating room associated with future operating room injections (OR 1.94, $p < 0.01$), and by sex-assigned-at-birth, with females less likely to undergo injections in the OR (OR 0.48, $p < 0.01$). In females, increasing parity was associated with fewer total injections (β = −0.44, $p < 0.01$) and lower dosage (β = −3.84, $p < 0.01$). Neurogenic bladder status did not correlate with any retreatment patterns. **Conclusions:** BTX-A injections provide time-limited benefit in OAB, with average retreatment intervals of 9.5 months and decreasing intervals as procedure number increases. Recognizing how patient factors, prior dose, procedural setting, complications, and patient response influence retreatment can help clinicians optimize counseling and long-term management.

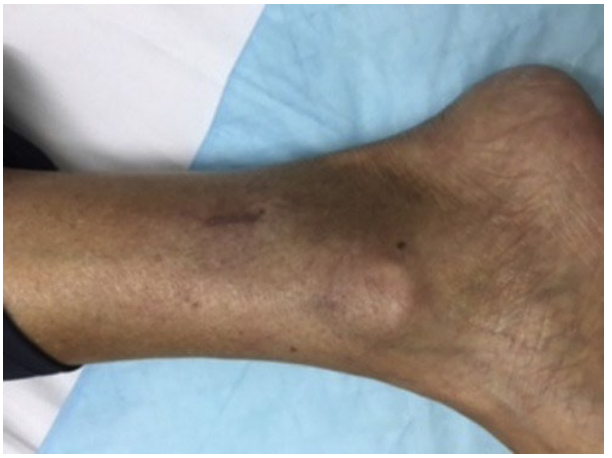
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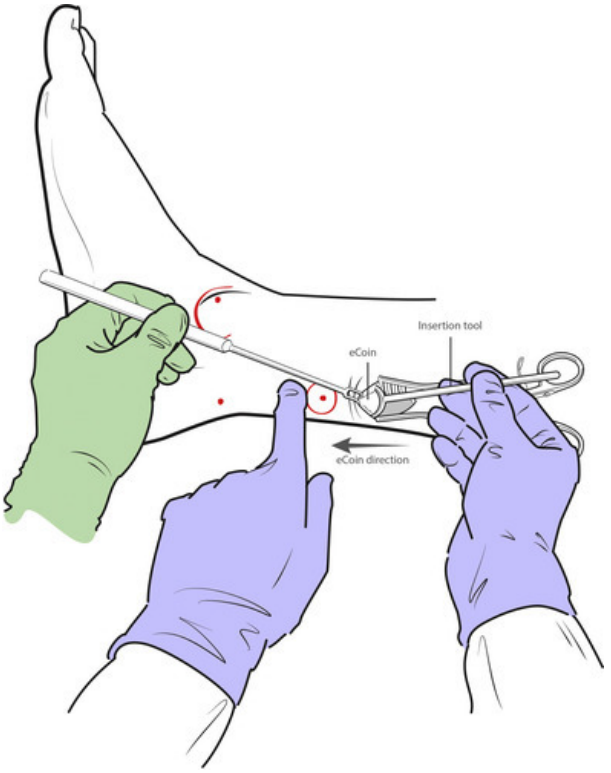
THE ECOIN™ IMPLANTABLE TIBIAL NERVE STIMULATION (ITNS) DEVICE FOR MEN WITH RADIATION-INDUCED OVERACTIVE BLADDER SYNDROME

A. Weinberg

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ABSTRACT: Introduction and Objective: Management of OAB with UUI follows an algorithm. Men with radiation therapy for prostate cancer develop refractory OAB. Many third-line treatment options exist. Many men remain symptomatic despite high doses of oral therapy, unfortunately BOTOX increases the risk of urinary retention. The eCoin® device is a minimally invasive ITNS automated neuromodulation therapy. OBJECTIVE: To evaluate the preliminary efficacy and safety of the implantable eCoin® tibial nerve stimulation system in men with radiation-induced OAB following prostate cancer treatment. **Methods:** Ten subjects underwent implantation of the eCoin® device subcutaneously over the posterior tibial nerve under local anesthesia. The device delivered automated 30 min stimulation sessions. Subjects completed 3-day bladder diaries at baseline and at 4, 8, and 12 weeks following implantation. Primary outcomes included change in UUI episodes per day and responder rates (≥50% and ≥75% reduction in UUI). Quality of life was assessed using the Incontinence Quality of Life (iQOL) questionnaire. Safety was evaluated through reported adverse events. **Results:** Ten subjects ITNS; 12-week follow-up. 8 weeks, mean UUI episodes decreased by 75%, and at 12 weeks episodes decreased by 86%. Clinically meaningful improvement in iQOL occurred in 75% at 8 weeks and 100% at 12 weeks. **Conclusions:** Implantable tibial nerve stimulation using the eCoin™ system demonstrated substantial reductions in UUI episodes and meaningful improvements in quality of life in men with radiation-induced OAB. No worsening of voiding dysfunction was observed. These preliminary findings support further evaluation of the eCoin™ system as a treatment option for refractory OAB following radiation therapy.





FRI-CS9-1400

Post-Procedure Pharmacotherapy Prescription Patterns after Sacral Nerve Stimulation and Intradetrusor OnabotulinumtoxinA Injection for Idiopathic Overactive Bladder

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ABSTRACT: Introduction and Objective: Overactive bladder (OAB) is a prevalent and bothersome constellation of symptoms. Sacral nerve stimulation (SNS) and intradetrusor onabotulinumtoxinA (BTX) injection are effective advanced therapies for OAB. When effective, guidelines recommend discontinuation of concurrent medications to reduce unnecessary overtreatment, adverse effects, and costs. Usage of OAB medications is not well understood following these interventions. We aim to characterize real-world pharmacotherapy rates following SNS or BTX for OAB. **Methods:** We queried a large claims-based database (TriNetX) to capture all patients who received SNS or BTX for OAB between 2006 and 2025. Antimuscarinic and beta-3 agonist prescription rates were

determined pre-procedure and 1, 3, 6, and 12 months post-procedure. Baseline prescription rates were compared using Pearson chi-squared analysis. Odds ratios were calculated to compare prescription rates between SNS and BTX groups, using BTX as the reference group. **Results:** In total, 4971 and 10,853 patients underwent SNS and BTX, respectively. At baseline, patients who underwent SNS were less likely to have been prescribed an antimuscarinic or beta-3 agonist in the last year compared to BTX (40.4% vs. 47.6% and 26.6% vs. 35.5%respectively; $p < 0.001$ for both). At one and three months post-procedure, SNS was associated with lower odds of either medication compared to BTX (OR range 0.731–0.755, Table 1), with no significant difference at six and 12 months. **Conclusions:** In this TriNetX database analysis, OAB medication prescriptions following SNS or BTX decreased substantially, concordant with guideline recommendations to discontinue pharmacotherapy with advanced therapy initiation. Although SNS was associated with lower odds of pharmacotherapy at 1 and 3 months, this was not sustained beyond six months. Medication persistence in the BTX group may be to ease return of symptoms once BTX wears off.

Table 1: Antimuscarinic and beta-3 agonist use prior to and after sacral nerve stimulation (SNS) and onabotulinumtoxinA injection (BTX).

	SNS (*n* = 4971)	**BTX (*n* = 10,853)**	***p*-Value or Odds Ratio (95% CI)**
Baseline (12 months pre-procedure)			
Antimuscarinic	1767 (40.4%)	5168 (47.6%)	***p* < 0.001**
Beta-3 agonist	1324 (26.6%)	4388 (35.5%)	***p* < 0.001**
1-month			
Antimuscarinic	115 (2.31%)	330 (3.04%)	**0.755** (0.609–0.936)
Beta-3 agonist	95 (1.89%)	277 (2.55%)	**0.736** (0.581–0.932)
3-month			
Antimuscarinic	81 (1.63%)	243 (2.24%)	**0.751** (0.579–0.975)
Beta-3 agonist	73 (1.47%)	225 (2.07%)	**0.731** (0.56–0.954)
6-month			
Antimuscarinic	75 (1.51%)	169 (1.56%)	0.985 (0.749–1.296)
Beta-3 agonist	60 (1.21%)	159 (1.47%)	0.836 (0.62–1.127)
12-month			
Antimuscarinic	73 (1.47%)	151 (1.39%)	1.057 (0.798–1.401)
Beta-3 agonist	61 (1.23%)	155 (1.43%)	0.858 (0.637–1.156)

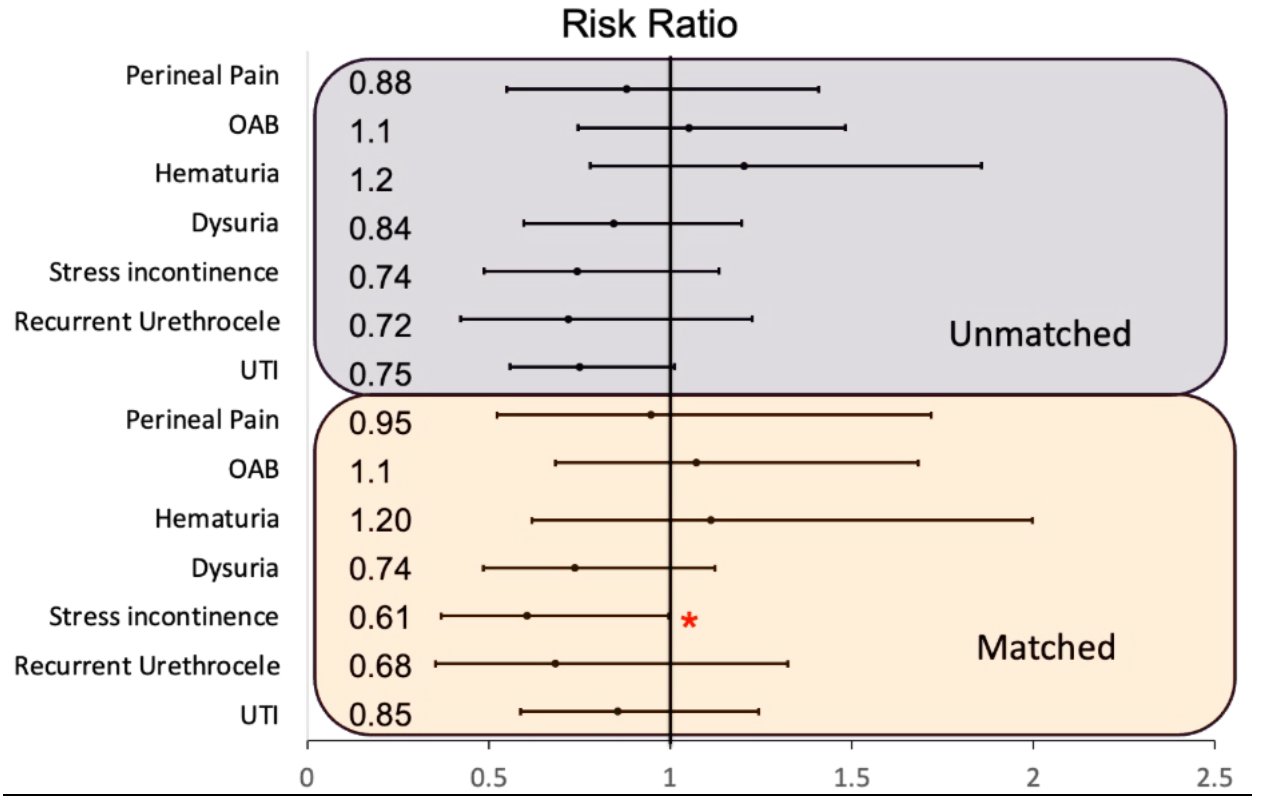
FRI-CS9-1405

Outcome Comparison of Adult Females <50 Years for Surgical vs. Non-Surgical Management of Urethral Prolapse Using Trinetx Data

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ABSTRACT: Introduction and Objective: Urethral prolapse is a rare condition caused by the protrusion of urethral mucosa through the meatus. The objective of our study was to review demographic characteristics, risk factors, and outcome comparisons for female patient with urethral prolapse undergoing conservative management with topical estrogen vs. surgical interventions. **Methods:** Using the Trinetx Database, a retrospective study was performed on adult female patients < 50 years diagnosed with urethrocele/urethral prolapse. Demographic characteristics and risk factors were compared between the two cohort groups: surgical intervention and pharmacologic management with conjugated estradiol (E2). Using propensity scoring, outcome comparison of major and minor complications was calculated and compared between both a matched and unmatched group. **Results:** 661 adult female participants were included in the study. 128 (19%) patients underwent surgical intervention while 533 (81%) underwent E2 therapy. Patients in the E2 group had a significantly higher diagnosis of Type 2 diabetes. The surgical intervention group had significantly higher personal and family history of MSK and connective tissue disease, prior pregnancy, and tobacco use. Propensity score matching was completed by matching statistically significant covariates between groups (family and personal history of MSK, connective tissue disorder, tobacco use, pregnancy state, BMI). Outcome comparison demonstrated a significant increased risk of stress incontinence in patients utilizing estrogen for treatment of urethral prolapse. **Conclusions:** While an uncommon condition, urethral prolapse is more often treated conservatively wtth E2 therapy based on our large cohort study. However, for patients with comorbidities, it is more common to undergo surgical management. Surgical management is relatively low risk for those best managed with an intervention however, for those utilizing estrogen, there was a higher risk of stress incontinence.



FRI-CS9-1410

Beyond Weight Loss: Effect of GLP-1 Receptor Agonist Therapy on the Urological Health

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Penn State Health Milton S Hershey Medical Center, Hershey, PA, USA

ABSTRACT: Introduction and Objective: Glucagon-like peptide-1 receptor agonists (GLP-1 RA) are widely prescribed for diabetes and weight loss, with well-recognized gastrointestinal adverse effects. However, urological adverse effects remain poorly characterized. We present a case of reproducible lower urinary tract and genital symptoms temporally associated with tirzepatide therapy. **Methods:** A case

report was developed from clinical history and diagnostic evaluation of a 40-year-old male who developed urogenital symptoms after initiating tirzepatide (Zepbound). Workup included urinalysis, urine culture, sexually transmitted infection testing, and yeast culture. Response to empiric antimicrobial therapy and to discontinuation of tirzepatide was documented. **Results:** A 40-year-old male with hypertension, lumbar disc herniation, and prior cholecystectomy initiated tirzepatide 2.5 mg weekly. Three to four weeks later, he developed urinary frequency, dysuria, internal penile pruritus, pelvic/perineal pain, and sexual dysfunction including painful erections and inability to ejaculate. He denied fever, hematuria, gastrointestinal symptoms, testicular pain, and new sexual partners. Despite empiric treatment with ciprofloxacin, trimethoprim-sulfamethoxazole, fluconazole, and doxycycline for presumed prostatitis, symptoms persisted. Infectious evaluation remained negative. Symptoms reproducibly worsened within 24–48 h after each weekly injection and partially improved prior to the next dose. After dose escalation to tirzepatide 5 mg weekly, symptoms worsened further and the patient discontinued therapy. Symptoms began improving four days after discontinuation with complete resolution within ten days. At follow-up more than two weeks after the final injection, he reported no recurrence. **Conclusions:** This case describes a novel urological adverse effect temporally associated with tirzepatide use that mimicked prostatitis despite negative infectious workup. Clinicians should consider GLP-1 RA therapy in patients with unexplained urogenital symptoms to avoid unnecessary antimicrobial exposure and diagnostic delays.

Mini Podium Session 8: Prostate, Kidney and Bladder Cancer

FRI-CS10-1530

A Single Center Retrospective Validation of the NSQIP Surgical Risk Calculator for Prostatectomies

C. Herodotou[1], M. Lebedev[2], M. Klein[1], Z. Taylor[1] and I. Zeltser[1]

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ABSTRACT: Introduction and Objective: The purpose of the American College of Surgeons National Surgical Quality Improvement Program (NSQUIP surgical risk calculator is to provide empirically derived, patient-specific estimates of risk for adverse postoperative outcomes. This open-access tool uses 21 patient-related variables to generate procedure-specific outcome predictions. The purpose of this retrospective study is to validate its predictive value in robotically-assisted laparoscopic prostatectomy patients. **Methods:** We conducted a retrospective, single-institution study using operative records from two high-volume surgeons at a suburban Philadelphia hospital. A total of 319 patients who underwent robot-assisted laparoscopic prostatectomy (RALP) with pelvic lymph node dissection (PLND) between January 1, 2019 and December 31, 2022 were identified. After deidentification, patient information was entered into the ACS NSQIP Surgical Risk Calculator using CPT code 55866 (RALP with PLND). Predicted outcome probabilities were recorded and analyzed using receiver operating characteristic (ROC) curves, with an area under the curve (AUC) < 0.5 interpreted as poor model performance. Predicted risks were dichotomized as above or below average, and associations with observed outcomes were evaluated using Chi-square analysis. **Results:** Based on ROC curve analysis, all predicted outcomes variables performed poorly with the exception of hospital readmission (AUC = 0.509) and renal failure (AUC = 0.733) (Fig. 1). When variables were dichotomized and analyzed via Chi-square analysis similar poor discriminatory performance was observed. Several outcomes including pneumonia, cardiac complications, and SSI were unable to be analyzed via ROC or chi-square analysis because they did not occur in the data set. **Conclusions:** While the NSQUIP Surgical Risk Calculator may provide general information to providers attempting to quantify pre-operative surgical risks for patients planning to undergo a RALP, it cannot be relied on to predict low probability events.

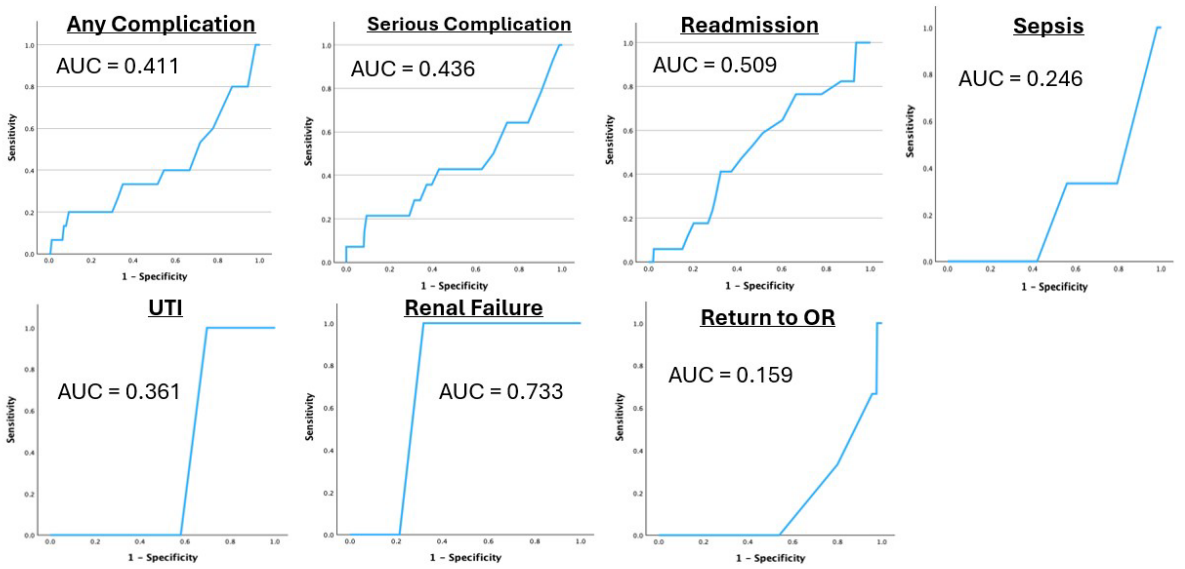


Figure 1: ROC analysis of NSQIP predicted RALP complications.

FRI-CS10-1535

An Update of Hemoglobin, Albumin, Lymphocyte Platelet (HALP) Score: A Novel Effect Modifier on Frailty in Bladder Cancer

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[1]Main Line Health, Wynnewood, PA, USA; [2]George Washington University School of Medicine, Washington, DC, DC, USA

ABSTRACT: Introduction and Objective: Frailty is the age-related increased vulnerability to adverse health outcomes due to decreased physiologic reserve. A variety of frailty indices have been validated for prognosticating outcomes in patients with bladder cancer (BC) including the Modified 5 item frailty index (MFI-5). Hemoglobin, Albumin, Lymphocyte, Platelet (HALP) Score is a novel immune-nutritional marker combining common laboratory data which has been demonstrated to predict overall survival in a variety of cancer models. We sought to examine HALP as an effect modifier of MFI-5 in patients with BC undergoing radical cystectomy (RC). **Methods:** We conducted a retrospective single institution study using EMR chart review. We identified 148 patients from 2018–2024 that had cT1-4N0-3M0 urothelial bladder cancer who underwent radical cystectomy. Patients' HALP score was calculated 3-months prior to RC. MFI-5 index was calculated immediately prior to RC. Survival outcomes were compared using Kaplan-Meier analyses with Log Rank test. **Results:** 53 (35.8%) patients had low HALP scores while 95 (64.2%) patients had high HALP scores. The median overall survival of patients with Low HALP was 980.3 days (CI: 813.7–1146.8) compared to 1304.9 days in the High HALP patients (CI: 1209.6–1400.1) ($p < 0.001$). Within the subgroup of MFI-5 high, patients with a low HALP had a median overall survival of 957.6 days (CI 736.9–1178.2) while patients with high HALP had a median overall survival of 1202.4 days (CI: 1030.9–1373.9) ($p = 0.081$). **Conclusions:** HALP may augment MFI-5's ability to prognosticate overall survival in BC by incorporating common laboratory data with a patient's past medical history. Combining this with disease specific characteristics may provide a more complete picture of a patient's robustness and physiologic reserve.

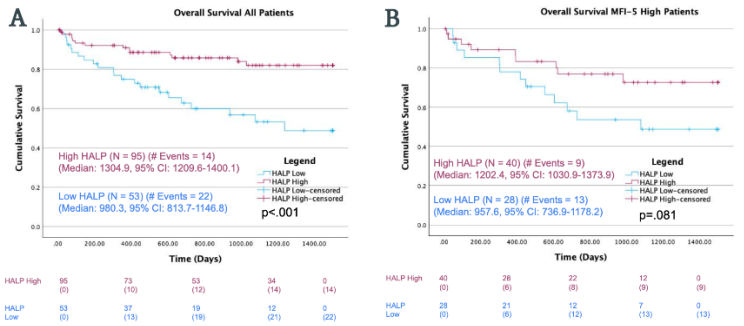


Figure 1. Kaplan-Meier Analysis Stratified on HALP . Overall survival compared between HALP Low vs HALP High among all patients (**A**)(n=148) and among MFI-5 high patients (**B**)(n=68). MFI-5 high defined as MFI-5>=2. HALP high defined as HALP > 22.0. Comparisons made over pooled strata. Log Rank test used to calculate statistical significance. Statistical significance was interpreted as $p \leq 0.05$

FRI-CS10-1540

An Indirect Treatment Comparison of Nogapendekin Alfa Inbakicept-Pmln plus Bacillus Calmette-Guérin and Nadofaragene Firadenovec-Vncg in BCG-Unresponsive Non-Muscle-Invasive Bladder Cancer with Carcinoma *In Situ* with or without Papillary Tumors

M. Williams[1], G. Jayram[2], C. Ly[3], H. Moradian[3], S. Flanders[4], M. Huang[4], B. Brown[4], S. Reddy[4] and B. Edwards[5]

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ABSTRACT: Introduction and Objective: Multiple FDA-approved therapies exist for Bacillus Calmette-Guérin (BCG)-unresponsive non-muscle-invasive bladder cancer (NMIBC) with carcinoma *in situ* (CIS) ± papillary disease, yet head-to-head trials are lacking. An indirect treatment comparison (ITC) was performed to assess the efficacy of nogapendekin alfa inbakicept-pmln plus BCG (NAI + BCG) versus nadofaragene firadenovec-vncg (NADO) in adult patients. **Methods:** Feasibility assessments between the phase 2/3 NAI + BCG study (QUILT-3.032; NCT03022825) and the phase 3 NADO study (Study CS-003; NCT02773849) confirmed suitability for the ITC. Patient-level data from QUILT-3.032 (Cohort A) were matched in an unanchored matched-adjusted indirect comparison (MAIC) or weighted in a simulated treatment comparison (STC) against aggregate data from CS-003 (CIS cohort). Mutually reported baseline variables (age ≥65, sex, ECOG status, race, stage) were used to minimize bias. Endpoints included complete response (CR) (anytime), duration of response (DOR), cystectomy rate, cystectomy-free survival (CFS), and overall survival (OS). E-values were calculated to assess confounding. **Results:** After matching, NAI + BCG achieved a significantly higher overall CR than NADO (69.7% vs. 53.5%; odds ratio 2.01, 95% CI 1.08–3.72). Weighted DOR favored NAI + BCG (22.1 months vs. 9.7 months; mean difference 12.45 months, 95% CI 8.17–17.09). At 12 months, cystectomy occurred in 11% of NAI + BCG patients versus 29% receiving NADO, yielding a CFS hazard ratio of 0.40 (95% CI 0.21–0.75). OS differences were not statistically significant (hazard ratio 0.85, 95% CI 0.22–3.31). E-values for primary outcomes exceeded conventional thresholds, supporting the robustness of findings. **Conclusions:** In this unanchored, population-adjusted ITC, NAI + BCG demonstrated superior CR rates, markedly prolonged DOR, and reduced 12-month cystectomy incidence relative to NADO in BCG-unresponsive NMIBC CIS ± papillary disease. Longer follow-up is required to clarify the OS benefits. These comparative efficacy data may inform shared decision-making for clinicians and patients, acknowledging the methodological limitations inherent to unanchored ITC analyses.

FRI-CS10-1545

Effect of Vaginal Estrogen on Incidence of Urinary Tract Infections, Hospitalization, and all-cause Mortality in Women with Bladder Cancer: A real-world propensity-matched Study

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ABSTRACT: Introduction and Objective: Vaginal estrogen (VE) therapy alleviates genitourinary symptoms and recurrent urinary tract infections (UTI) in postmenopausal women. We hypothesized that VE use is associated with decreased UTI incidence and reduced rates of hospitalization and mortality in women with bladder cancer. This study aims to determine whether VE use provides protective benefits in high-risk populations, thereby improving quality of life. **Methods:** We performed a 1:1 propensity-matched retrospective cohort study using the TriNetX Research Network to compare 1-year outcomes among adult women with bladder cancer (ICD-10-CM codes C67.0, C67.5, C67.8, D09.0, C79.11, Z85.51) who did not receive chemotherapy or immunotherapy, stratified by VE (NLM:VA: GU500) exposure in the last 20 years. Outcomes included a composite UTI-related outcome, hospitalization, and all-cause mortality. Incidence, relative risk, and Kaplan-Meier survival were calculated. **Results:** After propensity matching, 4856 individuals remained in each cohort (mean age 69.8 ± 12.5 years). Vaginal estrogen use was associated with lower 1-year incidence of UTI (9.3% vs. 11.1%; RR 0.84, 95% CI 0.72–0.98), hospitalization (7.0% vs. 8.8%; RR 0.79, 95% CI 0.68–0.92), and all-cause mortality (6.0% vs. 9.9%; RR 0.61, 95% CI 0.53–0.70) compared with no vaginal estrogen use. Kaplan–Meier analysis demonstrated improved event-free survival across these outcomes in the VE cohort (log-rank p-values ≤0.008 for all comparisons). **Conclusions:** These findings demonstrate reduced UTI incidence, hospitalization, and mortality in women with bladder cancer treated with VE. Limitations include potential coding inaccuracies and database constraints. Further studies should assess whether VE affects treatment, surveillance adherence, and disease-free survival.

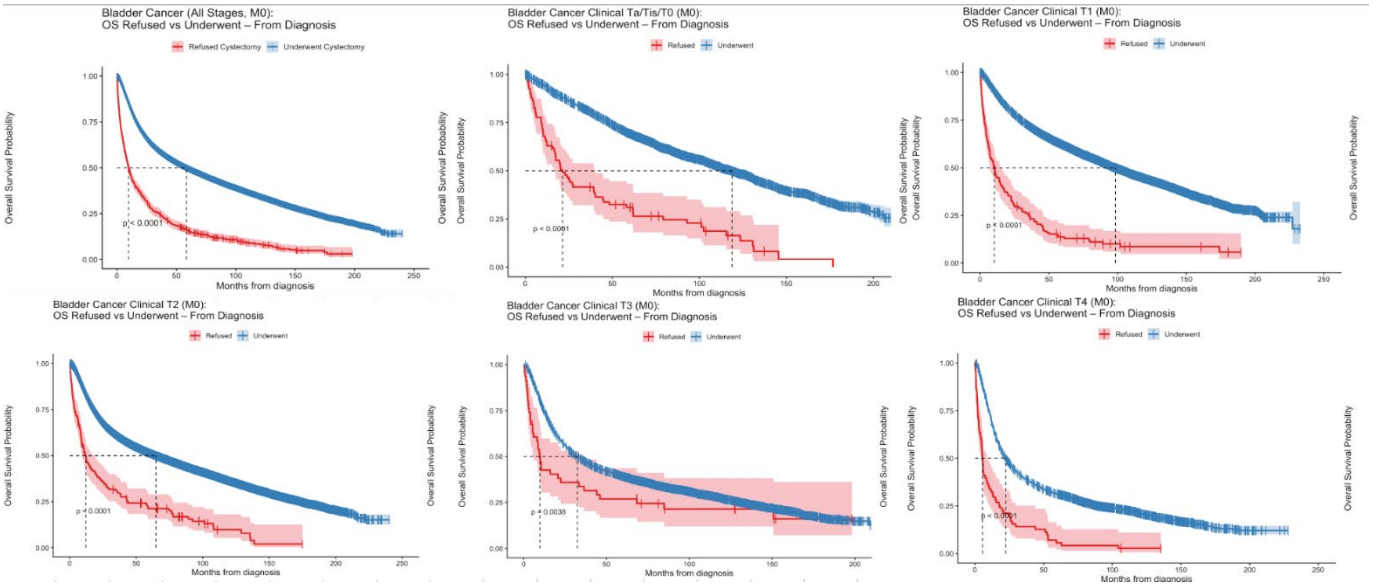
FRI-CS10-1550

Factors Influencing Refusal of Surgery in Bladder Cancer and Their Effect on Survival

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ABSTRACT: Introduction and Objective: Radical cystectomy is a standard treatment for many patients with non-metastatic bladder cancer, especially those with muscle invasive bladder cancer (MIBC). However, some patients refuse surgery. This study aims to evaluate factors associated with refusal of surgical treatment of bladder cancer and their impact on overall survival (OS). **Methods:** The National Cancer Database (2004–2019) was searched for patients who were recommended surgery. Patients with bladder cancer who either underwent cystectomy or explicitly refused recommended surgery were identified. Patients with metastatic disease were excluded. Multivariable logistic regression was used to identify predictors of surgical refusal. Overall survival was evaluated using Cox proportional hazards models adjusting for demographic, socioeconomic, and clinical variables. Additional analyses included a MIBC subgroup analysis and interaction testing between refusal status and muscle-invasive disease. **Results:** The cohort included 53,219 patients, 745 (1.4%) refused cystectomy. Increasing age, female sex, higher comorbidity burden, and lower socioeconomic status were associated with higher odds of surgical refusal ($p < 0.05$). In adjusted survival analysis, refusal of cystectomy was strongly associated with worse OS (HR 2.28, 95% CI 2.11–2.48, $p < 0.001$). Results were consistent within the MIBC subgroup (HR 2.05, 95% CI 1.77–2.37). Interaction analysis demonstrated a significant interaction between refusal and muscle-invasive disease ($p < 0.05$). Older age, female sex, Uninsured status, CDCC > 1, higher T stage, nodal involvement, alongside higher grade tumors were all associated with worse OS in those who refused ($p < 0.05$). Black race, Medicaid and Medicare insurance, and acceptance of chemo and/or radiation were associated with higher OS ($p < 0.05$). **Conclusions:** Refusal of cystectomy is associated with substantially worse survival in patients with bladder cancer. These findings highlight the importance of patient counseling and shared decision-making when discussing surgical management of bladder cancer.



FRI-CS10-1555

Trends in Age, Stage at Diagnosis, and Survival in Renal Cell Carcinoma: A National Cancer Database Study (2004–2021)

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ABSTRACT: Introduction and Objective: Renal cell carcinoma (RCC) represents a major component of the genitourinary cancer burden in the United States. While incidence and mortality trends are well described, temporal changes in age at diagnosis, stage distribution, and survival remain incompletely characterized. **Methods:** Using the National Cancer Database (NCDB), we analyzed 833,565 patients diagnosed with RCC between 2004 and 2021. Temporal trends in age at diagnosis were evaluated using Pearson correlation. Multinomial logistic regression assessed associations between year of diagnosis and clinical T, N, and M stage. Stage distribution trends were evaluated using yearly proportions of clinical T, N, and M stages. Kaplan–Meier analysis estimated overall survival by year of diagnosis and stage group. **Results:** Age at diagnosis increased significantly over time (r = 0.022, 95% CI 0.020–0.024; $p < 0.05$) with a median age of 64 years. Later diagnosis years were associated with higher odds of advanced tumor stage, including T2 (OR 1.08) and T4 (OR 2.06) compared with T1, while T3 remained unchanged (OR 1.00). Node-positive disease decreased slightly (OR 0.990), while metastatic disease remained stable (M1 OR 1.00). Stage distribution analysis showed declining T1 disease and increasing proportions of higher-stage tumors, particularly T3–T4. Survival differed substantially between localized and advanced disease, with 5-year survival of 79.8% for N0M0 disease compared with 9.6% for N + M+ disease. Overall survival improved across diagnosis years, with 5-year survival increasing from 63.2% in 2004 to 71.9% in 2017 and 10-year survival increasing from 47.9% in 2004 to 55.1% in 2012. **Conclusions:** Between 2004 and 2021, RCC diagnoses shifted toward older patients and more advanced tumor stages, marked by declining T1 disease and increasing proportions of T3–T4 tumors. Despite this stage migration, survival improved during the study period, likely reflecting advances in surgical and systemic therapies. Although survival improved, the impact of worsening stage migration on long-term outcomes remains unclear and warrants further study.

FRI-CS10-1600

Impact of Preoperative Immune Checkpoint Inhibitor Therapy on Outcomes Following Nephrectomy for Kidney Cancer: A Five-Year Multicenter Analysis

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ABSTRACT: Introduction and Objective: Immune checkpoint inhibitor (ICI) therapy is increasingly employed preoperatively in patients with advanced renal cell carcinoma. We assessed the perioperative safety of nephrectomy in patients with recent ICI exposure. **Methods:** A retrospective cohort study was conducted through the TriNetX Research network (111 healthcare systems). Male patients aged 18–89 years who underwent nephrectomy for kidney cancer between 2020 and 2025 were identified. Patients with previous chemotherapy or device presence were excluded. The ICI-exposed cohort (n = 104) received therapy within three months prior to nephrectomy. Propensity score matching (1:1) balanced age, ethnicity, BMI, chronic kidney disease, and diabetes. Outcomes included sepsis, acute kidney injury (AKI), distant metastasis, and mortality. **Results:** Sepsis risk was 10.4% in ICI-exposed versus 10.1% in unexposed patients (OR 1.04, 95% CI 0.41–2.61, p = 0.942). AKI occurred in 29.2% versus 16.9% (risk difference 12.3%, OR 2.03, 95% CI 0.90–4.61, p = 0.087). Lung/liver metastasis developed in 26.7% versus 16.8% (OR 1.80, 95% CI 0.82–3.94, p = 0.141). Mortality was 19.2% versus 18.3% (OR 1.07, 95% CI 0.53–2.14, p = 0.859). **Conclusions:** Preoperative ICI exposure within three months of nephrectomy was not associated with statistically significant increases in sepsis, mortality, or distant metastasis. A trend toward increased AKI warrants further investigation. These findings support the perioperative safety of ICI therapy in renal cancer management.

FRI-CS10-1605

ISOPSA LARGE-SCALE PROSPECTIVE VALIDATION STUDY: UPDATED PERFORMANCE OF ISOPSA ASSAY without and in Combination with Multi-Parametric MRI for the Detection of High-Grade Prostate Cancer

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ABSTRACT: Introduction and Objective: This large-scale prospective clinical validation study assessed the performance of the IsoPSA assay—a structure-based blood test—in a clinically relevant target population. The analysis focused on cohorts without pre-biopsy mpMRI and on those with pre-biopsy mpMRI with PI-RADS scores of 1–3. **Methods:** The evaluable population comprised 566 patients aged ≥50 years with total PSA levels between 4 and 10 ng/mL. All participants received both a prostate biopsy and IsoPSA, with investigators blinded to assay results. Patients with PI-RADS 4–5 were excluded due to their high inherent risk. Performance for high-grade prostate cancer (Grade Group ≥ 2) was assessed at an IsoPSA Index lower cutoff of ≤6.0 and an upper cutoff of >10.0. **Results:** The cohort included 362 patients (64%) without mpMRI and 204 (36%) with PI-RADS scores of 1–3. Risk Estimates: At the ≤6.0 cutoff, post-test risk was substantially below the pre-test prevalence. Detection: At the >10.0 cutoff, risk estimates were significantly higher than the baseline prevalence. Accuracy: The assay demonstrated a significantly low false-negative rate and clinically informative true-positive rate across all subgroups. **Conclusions:** IsoPSA is now directly validated both independently and in combination with mpMRI PI-RADS 1–3. Its clinical use provides demonstrable improvements in shared biopsy decision-making.

IsoPSA Index	# of Subjects				% of Subjects		Likelihood of Gleason Score ≥ 7					
	Total Subjects	Negative HG-PCs	HG-PCs (GS≥7)	Freq	Negative HG-PCs	HG-PCs (GS≥7)	LR	95% CI		Probability Estimate (Post-Test Risk)	95% CI	
								LB	UB		LB	UB
≤ 6.0	123	116	7	21.7%	20.5	1.2	0.16	0.01	0.31	5.69%	2.32%	11.37%
> 6.0 to ≤ 10.0	192	153	39	33.9%	27.0	6.9	0.69	0.43	0.94	20.31%	14.86%	26.70%
> 10.0	251	144	107	44.3%	25.4	18.9	2.01	1.59	2.43	42.63%	36.43%	49.00%
Total	566	413	153	27.03%	73.0	27	PRE-Test Risk 27.03%					

Table 1: IsoPSA Performance without mpMRI (no mpMRI)

mpMRI Status	IsoPSA Index	# of Subjects		Likelihood of Gleason Score ≥ 7		
		Total	Gleason Score ≥ 7	Probability Estimate (Post-Test Risk)	95% CI	
					LB	UB
No mpMRI	≤ 6.0	84	5	5.95%	1.96%	13.35%
	> 6.0 to ≤ 10.0	114	29	25.44%	17.75%	34.34%
	> 10.0	164	80	48.78%	40.91%	56.70%
	Total	362	114	31.49%		

Table 2: IsoPSA Performance in combination with mpMRI PI-RADS 1-3

mpMRI Status	IsoPSA Index	# of Subjects		Likelihood of Gleason Score ≥ 7		
		Total	Gleason Score ≥ 7	Probability Estimate (Post-Test Risk)	95% CI	
					LB	UB
mpMRI (PI-RADS 1-3)	≤ 6.0	39	2	5.13%	0.63%	17.32%
	> 6.0 to ≤ 10.0	78	10	12.82%	6.32%	22.32%
	> 10.0	87	27	31.03%	25.55%	41.86%
	Total	204	39	19.12%		

IsoPSA Positioning in Early Detection and Monitoring

Figure 1

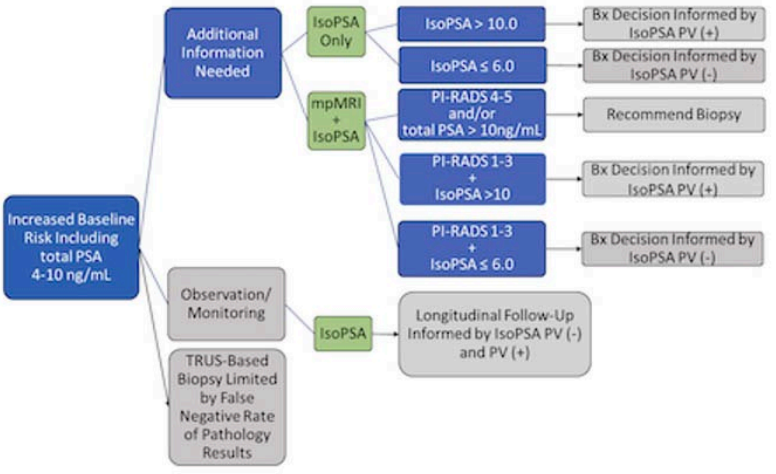


Figure 1 highlights the clinical use and positioning of IsoPSA in a contemporary early detection paradigm based on baseline risk alone and baseline risk + mpMRI

FRI-CS10-1610

Screening for Germline Genetic Testing Candidates in an Urban Academic Urology Practice

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ABSTRACT: Introduction and Objective: Germline genetic testing is increasingly relevant in urologic oncology to identify individuals at increased risk of hereditary cancer. However, challenges remain in identifying and testing appropriate candidates, especially in diverse populations. This study evaluates the implementation of a germline screening questionnaire in an urban academic urologic oncology practice. **Methods:** In this prospective study, consecutive patients presenting to a urologic oncology practice were surveyed to determine eligibility for germline testing using an original questionnaire based on National Comprehensive Cancer Network (NCCN) criteria for solid organ cancers that collected demographic and clinical data. Eligible patients were counseled and offered genetic counseling referral. Testing uptake and patient-reported barriers were documented. **Results:** Eighty-five patients (mean age 67; 87% male) were surveyed. The cohort was predominantly Black/African American (58%). Thirty-five patients (41%) reported limited or no family history knowledge. Twenty-two patients (26%) met NCCN criteria (mean age 68) for testing, of whom 70% are Black/African American. Eligibility for germline testing was higher among Black patients (33%) compared with non-Black patients (19%). Six eligible patients completed testing, yielding one pathogenic alteration. Eight patients declined due to perceived limited clinical relevance or concerns regarding insurance liability, while two had previously completed testing. Testing has been ordered for the remaining six patients with results pending. **Conclusions:** More than one in four patients met NCCN criteria for germline testing, emphasizing the need for screening tools to identify high-risk individuals in diverse populations. Despite counseling, testing uptake remained limited due to patient-perceived barriers and incomplete family history knowledge. These findings support initiatives to improve patient education, provider engagement and equitable access to testing through policy reform and structured screening integration into specialty care.

	Total Cohort (*n* = 85)	**Met NCCN Criteria (*n* = 22)**
Mean Age (years)	67.3	67.9
Male, *n* (%)	74 (87%)	21 (91%)
Female, *n* (%)	11 (13%)	2 (9%)
Race/Ethnicity, *n* (%)		
Black/African American	49 (58%)	16 (70%)
White	22 (26%)	4 (17%)
Hispanic/Latino	5 (6%)	1 (4%)
Asian	3 (3%)	1 (4%)
Primary Eligibility Criteria[1]		
Personal history of high-risk prostate cancer		15 (68%)
Personal/family history of renal cell carcinoma		3 (14%)
Lynch Syndrome-associated cancers[2]		4 (18%)
Testing Outcomes Among Eligible Patients		
Completed germline testing		6 (27%)

[1]Patients could meet NCCN germline testing criteria through personal cancer history and/or family history of hereditary cancer syndromes.

[2]Lynch syndrome-associated cancers include colorectal, endometrial, ovarian, gastric, pancreatic, urothelial, biliary tact, small intestine, glioblastoma, and sebaceous tumors.

Pathogenic mutation identified[3]	1
Declined testing	8 (36%)
Prior germline testing	2 (9%)
Testing ordered, results pending	6 (27%)

FRI-CS10-1615

Comparative Performance of Artificial Intelligence-Based Histopathologic Grading and Pathologist Grading for Predicting Biochemical Recurrence in Prostate Cancer

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ABSTRACT: Introduction and Objective: Gleason grading is the most validated prognostic factor in prostate cancer; however, interobserver variability among pathologist may affect prognostic accuracy, particularly outside of expert genitourinary pathology review. We compared the prognostic performance of a novel AI-driven Gleason grading model with expert pathologist consensus grading and established risk factors for predicting biochemical recurrence (BCR). **Methods:** Whole Slide Images (WSIs) from prostate biopsy specimens were analyzed in patients initially diagnosed with Grade Group 2 prostate cancer who subsequently had radical prostatectomy (n = 217). A representative biopsy slide containing up to two cores was selected per case. Gleason scores were re-assigned by consensus among three expert pathologists. An AI model was trained to predict gleason patterns. Cox proportional hazards regression models were constructed using either pathologist-assigned or AI-predicted grade groups, Additional variables included CAPRA score, percent-pattern 4, and cribriform/intraductal carcinoma. Model discrimination was assessed using concordance index. **Results:** 35 patients (16%) developed BCR. Pathologist consensus grading yielded a C-index of 61.2% for predicting BCR, whereas AI-based grading improved discrimination to 65.7%. Incorporating CAPRA score increased the C-index to 64.7% for pathologist grading and 67.6% for AI-grading. Models incorporating CAPRA with cribriform/intraductal achieved C-indices of 68.6% and 72.4% for pathologist and AI grading, respectively. With all factors combined, CAPRA, cribriform/intraductal and percent-pattern 4, C-index was 71.63% and 65.4% for pathologist and AI grading, respectively. **Conclusions:** AI-based Gleason demonstrates prognostic performance comparable to expert pathologist consensus grading for predicting BCR. Integration of clinicopathologic factors further improves predictive accuracy, supporting the potential role of AI-assisted pathology in risk stratification.

Table 1: Clinical and post-operative features (N = 217).

Clinical Features:	
Age, years, median (IQR)	63.0 (57.0–66.0)
Race: Black	40 (18%)
White	163 (75%)
Other/Unknown	14 (6%)
PSA, median (IQR)	5.4 (4.3–8.1)
Clinical stage: T1c	150 (75%)
T2a	28 (14%)
>=T2b	21 (11%)
Max % tumor on any core, median (IQR)	70.0 (33.0–80.0)

[3]The single pathogenic mutation identified was NTHL1.
All patients meeting testing criteria were counseled by the urologist (NM) and offered referral to genetic counseling.

Fraction cores involved %, median (IQR)	33.0 (17.0–45.5)
Bilateral disease, *n* (%)	118 (55%)
Intraductal carcinoma, *n* (%)	25 (12%)
pathologist consensus % pattern 4, median (IQR)	20.0 (10.0–40.0)
Post operative features:	
Grade group at RP, *n* (%), 1	59 (27%)
2	111 (52%)
3	35 (16%)
4	6 (3%)
5	4 (2%)
Positive margins, *n* (%)	33 (15%)
BCR, *n* (%)	35 (16%)
Time to BCR, years, median (IQR)	2.0 (1.0–5.0)
Follow up time, years, median (IQR)	4.0 (1.0–7.0)

Table 2a: CAPRA using pathologist consensus grade group + pathologist % pattern 4.

Risk Factors		**Hazard Ratio (95% CI)**	***p*-Value**	***p*-Value (Type3)**	**C-Index**
CAPRA score alone using pathologist grade group	3–5 vs. 0–2	1.84 (0.68, 5.01)	0.2291	0.1846	71.63%
	6–10 vs. 0–2	4.06 (0.91, 18.13)	0.0661		
pathologist % pattern 4	per 10%	1.16 (0.98, 1.38)	0.0870	0.0870	71.63%

Table 2b: CAPRA using pathologist consensus grade group + pathologist cribriform/intraductal

Risk Factors		**Hazard Ratio (95% CI)**	***p*-Value**	***p*-Value (Type3)**	**C-Index**
CAPRA score alone using pathologist grade group	3–5 vs. 0–2	2.41 (0.98, 5.93)	0.0553	0.0096	68.58%
	6–10 vs. 0–2	6.79 (1.98, 23.34)	0.0024		
pathologist cribriform/intraductal	Yes vs. No	1.66 (0.77, 3.57)	0.1934	0.1934	

Table 2c: CAPRA using pathologist consensus grade group + pathologist crib/intraductal + % pattern 4.

Risk Factors		**Hazard Ratio (95% CI)**	***p*-Value**	***p*-Value (Type3)**	**C-Index**
CAPRA score alone using pathologist grade group	3–5 vs. 0–2	1.94 (0.72, 5.27)	0.1929	0.2589	73.48%
	6–10 vs. 0–2	3.46 (0.75, 16)	0.1128		
pathologist % pattern 4	per 10%	1.14 (0.95, 1.37)	0.1466	0.1466	
pathologist cribriform/intraductal	Yes vs. No	1.75 (0.78, 3.91)	0.1744	0.1744	

Table 2d: CAPRA score alone using AI discrete grade group + AI % pattern 4.

Risk Factors		Hazard Ratio (95% CI)	*p*-Value	*p*-Value (Type3)	C-Index
CAPRA score alone using AI discrete grade group	3–5 vs. 0–2	3.85 (1.66, 8.93)	0.0017	0.0026	65.42%
	6–10 vs. 0–2	8.82 (1.96, 39.81)	0.0046		
AI% pattern 4	per 10%	0.95 (0.83, 1.09)	0.4680	0.4680	

Table 2e: CAPRA score alone using AI discrete grade group + AI crib.

Risk Factors		Hazard Ratio (95% CI)	*p*-Value	*p*-Value (type3)	C-Index
CAPRA score alone using AI discrete grade group	3–5 vs. 0–2	3.16 (1.39, 7.19)	0.0059	0.0195	72.39%
	6–10 vs. 0–2	3.89 (0.88, 17.18)	0.0735		
AI crib	Yes vs. No	2.08 (0.88, 4.9)	0.0932	0.0932	

Table 2: f, CAPRA score alone using AI discrete grade group + AI crib + % pattern 4.

Risk Factors		Hazard Ratio (95% CI)	*p*-Value	*p*-Value (type3)	C-Index
CAPRA score alone using AI discrete grade group	3–5 vs. 0–2	3.77 (1.62, 8.77)	0.0020	0.0067	71.08%
	6–10 vs. 0–2	5.52 (1.18, 25.9)	0.0302		
AI% pattern 4	per 10%	0.89 (0.75, 1.04)	0.1446	0.1446	
AI crib	Yes vs. No	2.97 (1.11, 7.91)	0.0296	0.0296	

FRI-CS10-1620

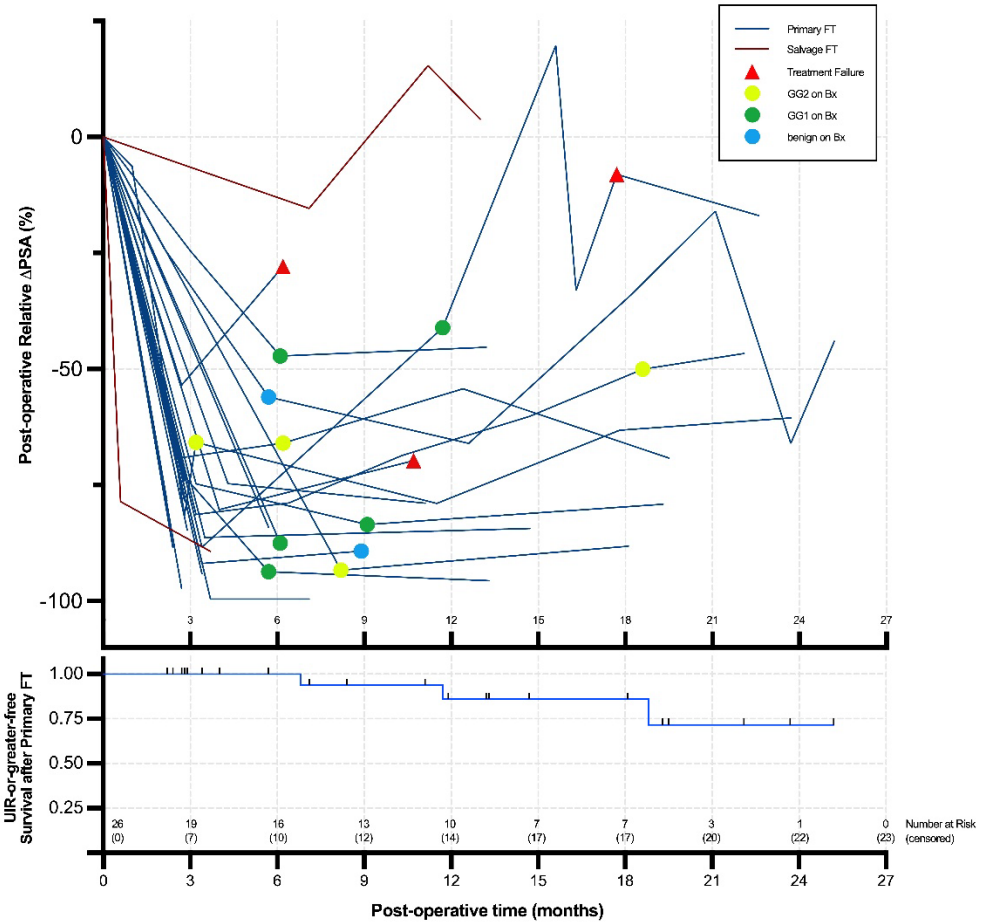
Initial Experience with Focal Therapy for Localized Prostate Cancer: Safety and Early Oncologic Outcomes

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ABSTRACT: Introduction and Objective: Focal therapy (FT) is an emerging option for prostate cancer (PCa). We describe initial experiences in safety, functional, and oncologic outcomes in patients treated with high intensity frequency ultrasound (HIFU) or cryoablation (CA). **Methods:** Between 1/2024 to 2/2026, 32 patients were treated with FT. Demographics, treatment details, and outcomes were collected retrospectively. After primary FT, treatment failure (TF) was defined as development of unfavorable intermediate risk disease or higher, and a Kaplan-Meier curve was used to assess oncologic outcomes. **Results:** Twenty-nine (91%) patients received HIFU and 3 patients (9%) received CA. Median age was 66.5 (IQR 59.7–75.8), with 56% of patients identifying as Black. Median pre-treatment PSA was 7.8 (IQR 5.3–12.0), with 10 (31%) favorable intermediate risk, 15 (47%) unfavorable intermediate risk, 1 (3%) high risk, and 6 (19%) salvage. TF occurred in 3 patients. Urinary retention was the most common adverse event (AE) (22%). Serious AEs occurred in 1 patient who required pressor support for urosepsis. New onset erectile dysfunction was present in 2/27 (7%) patients. Median follow up time was 11.9 months (CI 4.0–18.1). In primary FT patients, median relative reduction in PSA to nadir was 83.5% (IQR 78.4–88.5%), with absolute reduction of 6.1 ng/dL (IQR 4.7–7.6 ng/dL). At median follow-up 11.9 months, 86% of primary FT patients were free from TF (Fig. 1). **Conclusions:** In our initial experience, FT is a safe and feasible treatment for management of localized PCa

with minimal toxicity and favorable oncologic outcomes. However, longer follow-up is required to evaluate the durability of these results in this specific patient population.



FRI-CS10-1625

Impact of Gender-Affirming Hormone Therapy on Prostate Cancer Incidence and Screening in Transgender Women

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ABSTRACT: Introduction and Objective: Transgender women (TW) have an estimated 60–80% reduced risk of prostate cancer (PCa) compared to cisgender men (CM), presumably due to testosterone suppression and diminished androgen-driven carcinogenesis. We assessed the impact of different gender-affirming hormone therapy (GAHT) composition on PCa incidence, mean prostate-specific antigen (PSA) values, and screening rates. **Methods:** We conducted a retrospective cohort study using TriNetX. Because gender identity is not directly captured, TW were defined as individuals assigned male at birth with documented gender dysphoria or sex reassignment. TW were stratified by GAHT composition: no intervention (NI), estrogen alone (EO), or estrogen plus androgen suppression (E + A). Outcomes included PCa diagnosis, screening rates, and PSA values. Propensity-score matching adjusted for age at index, race, and family history of PCa. Platform analytic tools evaluated PCa incidence and PSA values, and Chi-square testing assessed screening rates. **Results:** Among 46,158 matched TW and CM, PCa incidence was lower in TW (RR = 0.43; 95% CI 0.315–0.589). In TW on E + A, PCa risk was similar to TW on NI (RR = 0.857; 95% CI: 0.397–1.853). In patients ≥55 years (N = 4752), PCa risk remained lower in TW (RR = 0.61;

95% CI: 0.435–0.869). TW had lower PSA screening than CM (15.1% vs. 19.3%, $p < 0.0001$), with TW E + A closer to CM (17.1% vs. 19.8%, $p = 0.07$) and TW NI screened least (11.6% vs. 18.4%, $p < 0.0001$). Median PSA was 0.3 ng/mL in TW E + A, and 1.2 ng/mL in TW NI and CM, though interpretation was limited to the most recent value. **Conclusions:** We observed a lower PCa incidence in TW compared to CM. GAHT stratification showed no clear protective effect of androgen suppression, though low event numbers limit interpretation. Among patients ≥55 years, for whom routine PCa screening is recommended by AUA guidelines, TW were less likely to undergo screening, which may contribute to the lower observed incidence.

Video Session

THU-CS4-1000

En-Bloc Technique with Anterior Apical Preservation during Salvage HoLEP: A Strategy to Minimize Incontinence

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THU-CS4-1006

Technical Considerations for Right Robotic Pyelolithotomy

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THU-CS4-1012

Single Port Robotic Transvesical Ureteral Reimplantation and Revision of Ureterovesical Anastomosis for a Transplant Kidney

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THU-CS4-1018

Single Stage Radial Forearm Phalloplasty

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THU-CS4-1024

Robotic Ureterolysis, Onlay Buccal Mucosa Graft Ureteroplasty, and Omental Wrapping for Retroperitoneal Fibrosis

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THU-CS4-1030

Re-Do Pyeloplasty with Wallace Anastomosis in a Duplicated System

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THU-CS4-1036

Robotic-Assisted Laparoscopic Undiversion of Ureterosigmoidostomy and Ileal Conduit Creation in a Patient with Bladder Exstrophy: A Stepwise Surgical Technique

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THU-CS4-1042

Robotic Assisted Multiport Ureteroneocystostomy with Intracorporeal Ileal-Ureteral Interposition

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Single Port Robotic Pyeloplasty with Pyelolithotomy and Buccal Mucosal Graft Ureteroplasty

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Bulkamid as a Treatment for Stress Incontinence in VACTERL

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Notes



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