CUA 2023 Annual Meeting Abstracts – Poster Session 12: Functional Urology, EDI, Other (Part 2)

Sunday, June 25, 2023 • 7:00–8:30

Cite as: *Can Urol Assoc J* 2023;17(6Suppl2):S144-50. http://dx.doi.org/10.5489/cuaj.8420

MP 12.1

Timing of urinary catheter removal after urethroplasty: A systematic review

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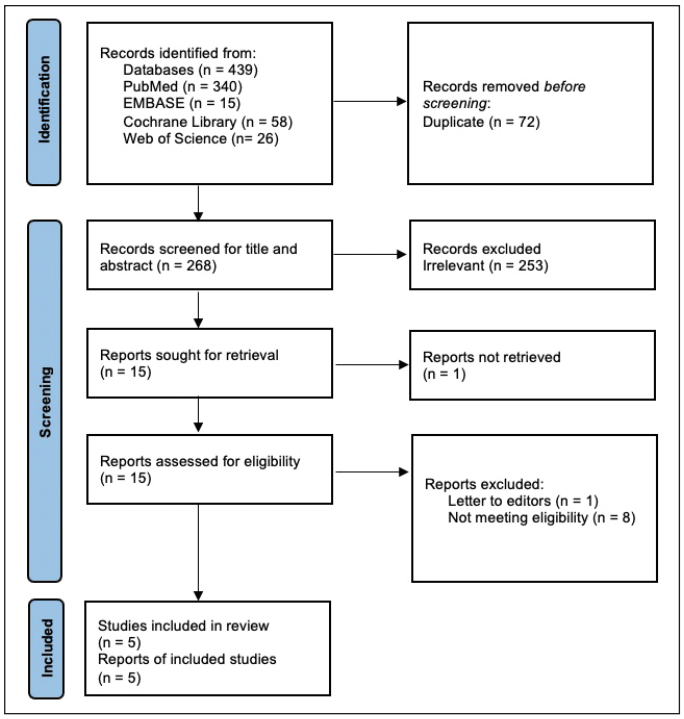
Introduction: The optimal duration of urethral catheterization after urethroplasty is unknown and published recommendations are not inclusive. This study aimed to synthesize existing evidence to evaluate the outcomes of different urinary catheter removal timing (early vs. late) after urethroplasty.

Methods: We performed a comprehensive search of PubMed, Embase, the Cochrane Library, and the Web of Science from inception to August 7, 2022. Articles were initially screened by title and abstract, and subsequently by a full paper review before being included in the final analysis. All comparative studies that assessed the association between urethral catheterization duration and frequency of extravasation and recurrence rate in patients who underwent urethroplasty were included in the analysis. Exclusion criteria were case reports, case series, letters to editors, and non-English studies. The risk of bias was assessed using the Newcastle-Ottawa Scale (Figure 1).

Results: Of the 439 relevant records in the literature databases, five studies involving 634 patients were included (Table 1). In all five studies, the extravasation rate was not significantly different between the early and late catheter removal groups. Among the three studies that reported recurrence rates, the recurrence rate was

MP 12.1. Table 1. Summary of findings

Author	Country	Study design	Participants	Intervention/ exposure	Comparator	Outcome measures	Followup time	Findings
Al-Qudah et al (2005)	Brazil	Retrospective review of medical records	29 patients undergoing urethroplasty with BMG and anterior anastomotic	Urethral catheter removal after urethroplasty	- BMG (n=10): DUC ≤7 days (average=7) (n=5) vs. DUC >7 days (average=12) (n=5) - Anterior anastomotic (n=19) Average DUC=3 days (n=12) vs. Average DUC=8 days (n=7) (no range reported)	1) Frequency of extravasation as detected on VCUG 2) Recurrence rate	3–24 months	BMG: Extravasation was reported in 0% and 20 % (1/5) in the early and late catheter removal group, respectively Anterior anastomotic: reported in 17% (2/12) and 0 % in early and late catheter removal groups, respectively The recurrence rate was very low in all groups
Islam et al (2015)	Bangladesh	Prospective observational study	50 patients undergoing dorsal onlay BMG urethroplasty	Urethral catheter removal after (BMG) urethroplasty	Patients with DUC 7 days vs. patients with DUC 21 days	Frequency of extravasation detected on PUG	Not reported	The incidence of extravasation did not differ significantly whether the catheter was removed on day 7 or 21 (12% vs. 8%, respectively)
Bansal et al (2016)	India	Retrospective chart review	236 patients undergoing EPA	Urethral catheter removal after EPA	Patients with DUC≤ 7 days (n=102) vs. patients with DUC> 7 days (n=134) (no range or median reported)	1) Frequency of extravasation detected on PUG 2) Recurrence rate	18–63 months	Extravasation rate: Not significantly different whether the catheter was removed on day 7 or 14 (6.8% vs. 4.5%, respectively) Recurrence rate: No significant difference between day 7 and 14 removals (4.9% vs. 5.2%, respectively).
Poelaert et al (2017)	Belgium	Retrospective chart review	219 patients undergoing urethroplasty	Urethral catheter removal after urethroplasty	Patients with DUC≤ 10 days (median 8 days) (n=86) vs. patients with DUC> 10 days (median 14 days) (n=133)	Frequency of extravasation as detected on VCU	1–64 months	The incidence of extravasation did not differ significantly whether the catheter was removed on day 8 or 11 (3.5% vs. 8.3%, respectively
Beiske et al (2021)	Norway	Comparison between Retrospective group (3-wk removal) with a prospective group (2-wk removal)	150 patients undergoing urethroplasties with BMG and EPA	Urethral catheter removal after bulbar urethroplasty	Patients with DUC= 2 weeks (n=50) vs. patients with DUC=3 weeks (n=100)	1) Frequency of extravasation as detected on PUG 2) Recurrence rate	3 months	The incidence of extravasation and recurrence did not differ significantly whether the catheter was removed at 2 or 3 weeks While the incidence of UTI was significantly higher in the latter group



MP 12.1. Figure 1. PRISMA flow diagram of the study.

low, with no statistically significant difference between the early and late catheter removal groups. Wound and urinary tract infections were among the most common complications, with a higher rate in patients with late catheter removal.
Conclusions: Early catheter removal following urethroplasty does not increase the rate of extravasation or recurrence during long-term followup. The existing evidence can serve as the foundation for additional research with a larger sample size.

MP 12.2

Outcomes of an intermittent self-dilation protocol for management of male urethral stricture disease

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Introduction: While surgical reconstruction remains the gold standard for management of urethral stricture disease, it is not always possible to pursue due to patient age, comorbidity, and patient preference. We aimed to assess outcomes in a cohort of patients in whom an intermittent self-dilation protocol was used to manage their stricture disease.
Methods: A retrospective review of a single-surgeon adult urology practice was conducted, identifying men on an intermittent self-dilation (ISD) protocol for stricture disease. Transgender urethral strictures and radiation strictures were excluded from analysis, as were those with <12 months followup from ISD education. Outcomes measured included the need for operative intervention for recurrent stricture disease, time between operative interventions, and symptom score including quality of life (IPSS). Self-dilation protocol consisted of twice daily for one month, daily for one month, three times weekly for one month, then as needed. A 14 F catheter was standard. For penile strictures involving lichen sclerosis, Clobetasol 0.05% cream was used as an adjunct
Results: Forty-four patients were identified, with a median age at diagnosis of 58 (range 20–84). The locations of strictures were bulbar (25%), penile (20%), meatal (34%), and the remainder panurethal/multifocal. Fifteen patients (32%) had undergone some form of previous reconstructive urethral surgery. At one year following IDS education, 42 patients (95%) remained free from operative intervention. Of 31 patients with adequate followup, 26 patients (84%) remained free from operative intervention at five years IPSS was available on 24 patients (51%). The mean total IPSS score was 8.2 and the mean QoL score on IPSS of 2 (mostly satisfied).
Conclusions: Management of urethral strictures with an intermittent SD protocol can lead to a durable and acceptable period free from operative intervention with reasonable associated QoL. Despite this, reconstructive surgery should still be considered and discussed with all these patients as a more definitive therapy.

MP 12.3

Long-term testosterone treatment (TTh) improves voiding function in hypogonadal men: A retrospective registry study

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Introduction: Functional hypogonadism is defined as low testosterone levels. It is associated mainly with the aging population; 50% of men over 80 suffer from functional hypogonadism). Hypogonadism is associated mainly with metabolic syndrome (MetS), type 2 diabetes mellitus (T2D), erectile dysfunction (ED), obesity, and lower urinary tract symptoms (LUTS). ED and LUTS are significant contributors to low decreased quality of life (QoL). LUTS are a hallmark of benign prostatic hyperplasia (BPH). A correlation was identified in some studies between BPH and low testosterone levels. Testosterone therapy (TTh) exhibited a promising therapeutic potential for hypogonadism and its comorbidities. Some scientific evidence exhibited a possible improvement in urinary symptoms despite testosterone increasing prostate volume (PV). TTh improves the International Prostate Symptom Score (IPSS) and storage symptoms; however, voiding symptoms are not improved. This study looked at whether TTh could have a protective effect in improving LUTS among hypogonadal men.
Methods: At our center, we established a cumulative and prospective data registry; 321 hypogonadal men were included. They received 1000 mg injections of long-acting testosterone undecanoate (TU). A followup of 12 years in 12-week intervals was established. Total testosterone, IPSS, and postvoid residual (PVR) were measured over the study period.
Results: A total of 321 hypogonadal patients with an average age of 58.9±9.52 years were included in the study. They received testosterone undecanoate in 12-week intervals for 12 years. PVR decreased from 23.8±16.2 mL to 16.7±6.4 mL ($p<0.0001$ vs. baseline) over that time period. The mean PVR was 28.7±8.3 mL. There was a significant increase in TTh all the way through to year 12, with an average increase of +10.3 mL to 39.0±6.4 mL ($p<0.0001$ vs. baseline).
Conclusions: Long-term TTh could help improve LUTS and voiding function, independently from prostate size. Also, it improves QoL and IPSS. There is a need for large, placebo-controlled, long-term outcome studies to validate current suggestions with more conclusive evidence.

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MP 12.4

Uncovering the link: Are sarcopenia and myosteatosis predictors of the urinary incontinence after laparoscopic radical prostatectomy?

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Introduction: Urinary incontinence (UI) remains a prevalent complication following laparoscopic radical prostatectomy (LRP). The only study considering the influence of average total psoas density (ATPD) and psoas muscle index (PMI) on UI after radical prostatectomy is based on the Asian population.[1] It states that myosteatosis, directly expressed by ATPD, correlates with the UI rate. The same report shows that sarcopenia, known as loss of skeletal muscle mass, has no correlation with UI. Regarding the differences concerning the population and surgical method used in the mentioned study, we aimed to evaluate the impact of ATPD and PMI on UI after LRP in the European population

Methods: The study is a retro-prospective analysis of medical records of 37 patients aged 50–80 years who underwent LRP from 2021–2022 at the Department of Urology and Urological Oncology of Medical University of Lublin, Poland. The analysis is based on CT examination performed before LRP (images at level L3), patients' age, height, and BMI. CT measurements were expressed by the Hounsfield Unit and cross-sectional area of both psoas muscles, which correspond with ATPD and PMI respectively. The severity of UI one, three, six, and 12 months after LRP procedure was expressed by the number of incontinence pads used per day.

Results: Logistic regression analyses demonstrate significant statistical correlation between PMI and UI rates three and six months after procedure (p=0.013 and p=0.020, respectively); however, no prominent impact of PMI is observed one and 12 months after surgery. ATPD does not emerge to be significantly associated with UI either one, three, six, or 12 months after LRP. Moreover, there is no detected statistical correlation between BMI, patient age, height, and UI.

Conclusions: Our analysis revealed a significant correlation between PMI and the incidence of UI following LRP. Notably, our study found that sarcopenia may be an independent risk factor for UI, providing important new insights into the underlying mechanisms of this complication. UI can strongly affect a patient's quality of life and, according to our results, is directly dependent on PMI value, which can be easily measured with available diagnostic imaging. PMI seems to pose a useful agent while making the decision about the surgery, considering possible side effects.

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MP 12.5

Characterizing granzyme B expression in Hunner lesions of IC/BPS patients: A potential novel therapeutic target

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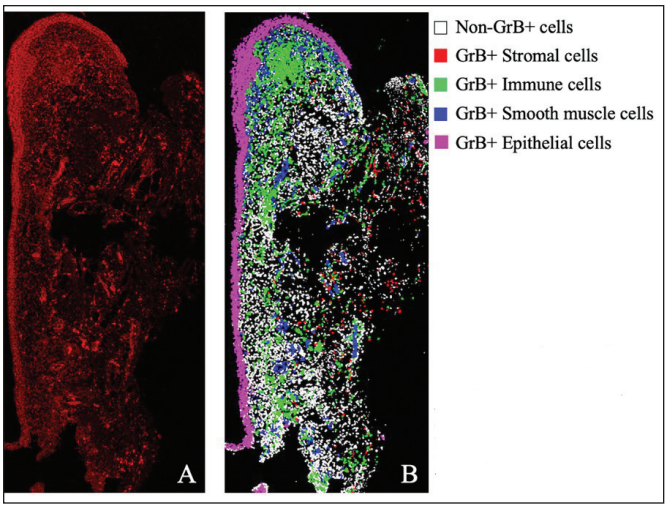
Introduction: Granzyme B (GrB) is a serine protease involved in the pathogenesis of many non-neoplastic inflammatory conditions. Studied predominately for its perforin-dependent pro-apoptotic functions when released by cytotoxic immune cells, GrB released from various other cell types possesses non-perforin-dependent protease activity that contributes to tissue remodelling via cleavage of substrates within tissue extracellular matrix. Thought to promote cancer cell invasion in urothelial carcinoma, GrB has never before been described in the context of interstitial cystitis/bladder pain syndrome (IC/BPS) or Hunner lesions (HLs). For the first time, we describe the pattern of GrB expression across cell types in patient tissue samples from HL biopsies in a pilot cohort of HL-IC/BPS patients using multiplex imaging mass cytometry (IMC)



MP 12.5. Figure 1. Panel A shows GrB+ cells in red from a biopsied Hunner lesion. Panel B shows general cell populations (see color legend) expressing GrB in the same lesion.

Methods: IMC using the Hyperion Imaging System was performed on formalin-fixed paraffin-embedded tissue sections (5 m) retrospectively collected from 10 patients with HL-IC/BPS. Sections were stained with a cocktail of 23 metal-conjugated antibodies targeting GrB, tissue stroma, epithelium, and various immune cells. Data from multiplexed images were processed and analyzed using various computational methods to identify cell types and cell clusters based on marker expression.

Results: Granzyme B expression was observed in HLs from all 10 patients and was present in 23% (7–50%) of all cells in a lesion. The proportion of GrB prevalence differed across cell types; GrB was observed in approximately 35% of immune cells, 30% of epithelial cells, 14% of smooth muscle cells, and 4% of fibroblasts. Within immune subsets, GrB was most commonly observed in activated macrophages (92%), neutrophils (37%), non-activated macrophages (32%), CD4+ T cells (33%), CD163+ macrophages (29%), and CD8+ T cells (28%) (Figure 1).

Conclusions: We report for the first time, the presence of GrB in various cell types within HLs of IC/BPS patients. While pre-clinical studies are needed to elucidate the role of this protease in disease pathogenesis, our data provide a rationale to evaluate GrB as a potential therapeutic target.

MP 12.6

The influence of race on 30-day postoperative complications after urological surgery: A propensity score-matched analysis of 138 777 patients from a national registry

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Introduction: Racial disparities in healthcare outcomes have been extensively described in the medical literature; however, in urological literature, there is a lack of evidence on the association between race and postoperative outcomes.

Methods: Adult patients that underwent urological surgeries (i.e., nephroureterectomy, radical prostatectomy, radical cystectomy, radical and partial nephrectomy, and percutaneous nephrolithotomy) in 2015–2019 were identified from the NSQIP database. Black-identifying patients were matched with White-identifying patients using 1:1 propensity score-matching, including baseline variables that were significantly different between groups. Odds ratios (OR) were estimated using logistic regression.

Results: A total of 138 777 individuals that underwent urological procedures were identified (48.3±11.5 years, 83.2% male, 12.1% Black-identifying), and a well-balanced cohort of 33 380 patients was matched. Black-identifying patients were more likely to be diagnosed with pneumonia (OR 1.31, 95% CI 1.03–1.66, p=0.029), have unplanned reintubation (OR 1.48, 95% CI 1.12–1.97, p=0.006), have a ventilator for >48 hours (OR 1.49, 95% CI 1.05–2.14, p=0.027), have

progressive renal insufficiency (OR 1.72, 95% CI 1.32–2.26, p<0.001), acute renal failure (OR 1.49, 95% CI 1.07–2.07, p=0.018), and bleed requiring transfusion (OR 1.11, 95% CI 1.01–1.21, p=0.035) compared to White-identifying patients. Black-identifying patients were less likely to be diagnosed with myocardial infarction (OR 0.63, 95% CI 0.42–0.94, p=0.024). Surgically, Black-identifying patients

MP 12.6. Table 1.

Covariates	White-identifying (n=16 690)	Black-identifying (n=16 690)	p	SMD
Age in mean years (SD)	44.35 (11.62)	44.60 (10.82)	0.043	0.022
Male sex (%)	13 612 (81.6)	13 710 (82.1)	0.168	0.015
Hispanic ethnicity (%)			0.205	0.020
Yes	188 (1.1)	160 (1.0)		
No	15 927 (95.4)	15 922 (95.4)		
Unknown	575 (3.4)	608 (3.6)		
Current procedural terminology code (%)			NaN	0.037
50060	7 (0.0)	11 (0.1)		
50065	2 (0.0)	2 (0.0)		
50220	350 (2.1)	335 (2.0)		
50225	31 (0.2)	30 (0.2)		
50230	469 (2.8)	458 (2.7)		
50234	33 (0.2)	42 (0.3)		
50236	3 (0.0)	6 (0.0)		
50240	676 (4.1)	631 (3.8)		
50543	1878 (11.3)	1844 (11.0)		
50545	1297 (7.8)	1341 (8.0)		
50546	684 (4.1)	679 (4.1)		
50548	202 (1.2)	196 (1.2)		
51570	17 (0.1)	23 (0.1)		
51575	42 (0.3)	33 (0.2)		
51580	1 (0.0)	2 (0.0)		
51585	0 (0.0)	0 (0.0)		
51590	122 (0.7)	112 (0.7)		
52235	681 (4.1)	694 (4.2)		
52240	554 (3.3)	582 (3.5)		
52601	2456 (14.7)	2439 (14.6)		
52630	215 (1.3)	210 (1.3)		
55840	186 (1.1)	188 (1.1)		
55842	141 (0.8)	121 (0.7)		
55845	469 (2.8)	477 (2.9)		
55866	6174 (37.0)	6234 (37.4)		

MP 12.6. Table 1 (cont'd).

Covariates	White-identifying (n=16 690)	Black-identifying (n=16 690)	p	SMD
Outpatient (%)	4275 (25.6)	4336 (26.0)	0.453	
Emergency case (%)	72 (0.4)	73 (0.4)	1.000	
Year of operation (%)			0.688	
2015	2661 (15.9)	2608 (15.6)		
2016	3266 (19.6)	3253 (19.5)		
2017	3373 (20.2)	3462 (20.7)		
2018	3545 (21.2)	3577 (21.4)		
2019	3845 (23.0)	3790 (22.7)		
Diabetes mellitus (%)			0.951	0.003
Insulin-dependent	1440 (8.6)	1431 (8.6)		
Non-insulin dependent	2599 (15.6)	2618 (15.7)		
None	12651 (75.8)	12641 (75.7)		
Smoker (%)	3561 (21.3)	3490 (20.9)	0.348	0.010
Dyspnea (%)			0.420	0.014
At rest	33 (0.2)	44 (0.3)		
Moderate exertion	772 (4.6)	787 (4.7)		
None	15 885 (95.2)	15 859 (95.0)		
Functional health status (%)			0.561	0.016
Independent	16 380 (98.1)	16 346 (97.9)		
Partially dependent	217 (1.3)	245 (1.5)		
Totally dependent	56 (0.3)	57 (0.3)		
Unknown	37 (0.2)	42 (0.3)		
Ventilator-dependent (%)	0 (0.0)	2 (0.0)	0.479	0.015
History of severe COPD (%)	603 (3.6)	612 (3.7)	0.815	0.003
Ascites (%)	14 (0.1)	7 (0.0)	0.190	0.017
Congestive heart failure (%)	186 (1.1)	180 (1.1)	0.793	0.003
Hypertension requiring medication (%)	11 817 (70.8)	11 857 (71.0)	0.638	0.005
Acute renal failure (%)	122 (0.7)	133 (0.8)	0.530	0.008
Dialysis (%)	795 (4.8)	911 (5.5)	0.004	0.032
Disseminated cancer (%)	379 (2.3)	394 (2.4)	0.610	0.006
Open wound/wound infection (%)	89 (0.5)	101 (0.6)	0.424	0.010
Steroid use (%)	549 (3.3)	559 (3.3)	0.783	0.003
>10% weight loss in six months (%)	149 (0.9)	166 (1.0)	0.365	0.011
Bleeding disorders (%)	358 (2.1)	347 (2.1)	0.703	0.005

MP 12.6. Table 1 (cont'd).

Covariates	White-identifying (n=16 690)	Black-identifying (n=16 690)	p	SMD
Transfusion ≤72 hr prior to surgery (%)	168 (1.0)	160 (1.0)	0.698	0.005
Systemic sepsis (%)			0.470	0.017
Sepsis	37 (0.2)	47 (0.3)		
Septic shock	3 (0.0)	3 (0.0)		
Systemic inflammatory response syndrome	160 (1.0)	140 (0.8)		
None	16 490 (98.8)	16 500 (98.9)		
Wound classification (%)			0.885	0.009
1-Clean	2055 (12.3)	2049 (12.3)		
2-Clean/contaminated	14 380 (86.2)	14 379 (86.2)		
3-Contaminated	158 (0.9)	154 (0.9)		
4-Dirty/infected	97 (0.6)	108 (0.6)		
ASA classification (%)			NaN	0.019
1-No disturb	183 (1.1)	186 (1.1)		
2-Mild disturb	6557 (39.3)	6452 (38.7)		
3-Severe disturb	9068 (54.3)	9111 (54.6)		
4-Life threat	870 (5.2)	930 (5.6)		
5-Moribund	0 (0.0)	0 (0.0)		
None assigned	12 (0.1)	11 (0.1)		
Body mass index in mean kg/m² (SD)	30.07 (6.04)	30.03 (6.37)	0.536	0.007

were less likely to be diagnosed with a superficial surgical site infection (SSI) (OR 0.68, 95% CI 0.52–0.88, p=0.003) (Table 1).

Conclusions: Black-identifying patients were more likely to have respiratory, renal, and bleeding complications and less likely to be diagnosed with myocardial infarction and superficial SSI. This study is limited by its stringent categorization of race that may entirely reflect the patient's identity and by the inability to address unmeasured confounders.

MP 12.7

Impact of intraoperative pudendal nerve blocks on postoperative pain in patients undergoing penile inversion vaginoplasty

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Introduction: The transition-related surgery (TRS) program in Toronto, Canada, was established as the first publicly funded TRS program performing penile inversion vaginoplasty in Canada. In order to improve pain management and decrease postoperative opioid use, we have introduced intraoperative pudendal nerve blocks at the completion of penile inversion vaginoplasty surgery. Herein, we examined the effect of the pudendal nerve blocks.

Methods: A retrospective review of 31 patients that underwent penile inversion vaginoplasty since July 2021 was conducted. All patients recovered in hospital for three days after the operation with a standing pain protocol of regular acetaminophen, ketorolac, and as-needed oxycodone. When intraoperative pudendal nerve blocks were performed, the operating surgeons used a perineal approach of a 20 mL lidocaine/bupivacaine mixture. Patient-reported postoperative pain scores and opioid use while in-hospital were reviewed.

Results: Thirty-one patients undergoing penile inversion vaginoplasty at our institution were included, 11 of which received intraoperative pudendal nerve. Patients that received a pudendal nerve block had a decrease in overall postoperative narcotic use (mg) (M=24.09, SD=24.98) compared to patients that did not have a block (M=48, SD=45.03) (p=0.034). This relationship was also present when considering postoperative day one narcotic usage (mg) alone (M=6.36, SD=7.45 vs. M=18.5, SD=16.23, p=0.004). Maximum pain scores were reduced immediately postoperatively for those that received pudendal nerve blocks (M=2.73, SD=1.79) compared to those that did not (M=4.8, SD=2.07, p=0.004). There were no adverse events related to the implementation of pudendal nerve blocks.

Conclusions: Our results demonstrate that performing intraoperative pudendal nerve blocks decreases postoperative opioid use and initial pain scores. Based on this retrospective review, pudendal nerve blocks appear to be a safe and effective analgesia adjunct for patients undergoing penile inversion vaginoplasty.

MP 12.8

Differences in remuneration for common urological procedures across provinces in Canada

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Introduction: The provincial governments are responsible for healthcare resource allocation and physician remuneration in Canada. Research is lacking on the variations among provinces regarding remuneration for urology procedures. Analyzing provincial variations in payments for urological services may provide information that could better inform future negotiations around provincial urology service remuneration decisions.

Methods: We reviewed the publicly available physician fee guides for the 10 Canadian provinces. We identified standard urological procedures that fit within one of four groups: general urology, oncology, functional urology, and men's health/andrology. Our criteria for selecting procedures included ones with well-defined definitions and did not tend to include multiple fee codes or modifiers. We extracted the fee code and remuneration based on the most recently published fee codes (December 2022). Where possible, fee code validity was reviewed by urologists from that province. Coefficients of variation (CV) were calculated to look at inter-province variation, and differences in CV between subspecialties were determined. Means and standard deviations (SD) are reported, and Pearson correlations with the 2022 provincial consumer price index were calculated.

Results: We selected 28 procedures. For general urology codes, initial consultation had a mean reimbursement of $89.14, SD $10.62, cystoscopy $95.76, SD $22.03. Cystectomy with continent diversion had the highest mean reimbursement ($2021, SD $431). The highest CV in each subspeciality was isolated cystectomy (CV 55), one-stage urethroplasty (CV 54), and revision of penile prosthesis (CV 63). There was no significant difference in the CV between the three subspecialty groups (p=0.41). For oncology, the province of Saskatchewan had the most highest-paying procedures. For functional urology, the province of Saskatchewan had the most highest-paying procedures. There was no significant correlation between the consumer price index for each province and their urology consultation fee (r=0.19, p=0.60) or cystoscopy fee (r=0.53, p=0.12).

Conclusions: Independent provincial health plans have a large degree of variation in how standard urology procedures are reimbursed. Common urology codes do not seem to be well-correlated to cost-of-living differences in the provinces. Further work should focus on understanding how and why individual provinces choose to remunerate specific procedures that are outliers from the Canadian average.

MP 12.9

Retrospective case series: Freedom from stricture recurrence in patients treated with Optilume urethral DCB in New Brunswick

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Introduction: The Optilume® drug-coated balloon (DCB) is a dilation balloon with a paclitaxel coating that combines mechanical dilation for immediate symptomatic relief with local drug delivery to maintain urethral patency. The aim of this case series was to demonstrate real-world evidence of treatment with Optilume. Length of time to retreatment are reported here.

Methods: This retrospective review describes a total of 25 Optilume procedures done on 23 patients at one institution in New Brunswick, Canada. Adult men with strictures averaging 2 cm in length and 8 Fr in lumen size received treatment with Optilume DCB. Thirty-nine percent (9/23) had prior radiation and 34.7% (8/23) were self-dilating occasionally, at minimum, and up to 3–4 times per day. The average number of prior stricture treatments is 2.4 prior treatments. The average length between treatments prior to Optilume DCB is 63 weeks (range 0–520 weeks). The maximum length of followup in this case series is 39 months. Subjects continue to be observed for length of time to retreatment (repeat dilation or urethroplasty).

Results: At the time of this abstract submission, 86.9% (20/23) of subjects did not require retreatment. Three patients required repeat dilation or urethroplasty approximately 17.5 months after initial treatment. Data will be updated at the time of presentation.

Conclusions: The Optilume urethral DCB shows promising results for length of time until repeat treatment, even in more challenging demographics, such as patients with prior radiotherapy.

MP 12.10

Change in medical complexity of urological inpatients over a 13-year period

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Introduction: The presence of multiple comorbid diagnoses, polypharmacy, and multiple physician or specialist involvement in care are accepted markers of medical complexity. Increased medical complexity leads to increased healthcare system interactions, resource utilization, and a heightened risk of poor outcomes. While medical complexity is increasing in Canada over time, this has not been studied in urological inpatients specifically.

Methods: This is a comparative, retrospective chart review of inpatients admitted to the urology service at the QEII Hospital in Halifax, NS from September 2006 to March 2007 and September 2019 to March 2020.

Results: To date, 151 charts were reviewed (historic n=74; contemporary n=77). Multiple markers of medical complexity were significantly increased in the contemporary cohort, including age, number of chronic diseases, degree of polypharmacy, and number of physicians seen in the year prior to admission (Table 1). Length of stay (LOS) was longer for contemporary patients (mean=5.01 vs. 4.74 days) but did not differ significantly. The average number of physician (mean=0.59 vs. 0.32 consults) and non-physician (mean=0.33 vs. 0.17 consults) consults during admission were higher in the contemporary group but did not differ significantly. Patients in the contemporary cohort had significantly lower odds of a simple discharge to home (i.e., without homecare supports, or hospital transfer) (OR 0.32, 95% CI 0.12–0.81, p=0.02).

Conclusions: Markers of medical complexity were found to have increased between our cohorts, suggesting an increase in the overall medical complexity of urological inpatients over time. This study is ongoing and future results may help guide resource allocation and identify areas for innovation to meet the needs of increasingly complex patients in urology.

MP 12.10. Table 1. Key markers of medical complexity among urological inpatients

	n	Mean	SD	95% CI	p
Age					
Historic	74	62.59	16.14	58.86–66.33	0.043
Contemporary	77	66.84	13.96	63.67– 70.01	
Number of chronic disease diagnoses					
Historic	74	1.72	1.31	1.41–2.02	0.025
Contemporary	77	2.25	1.92	1.81–2.68	
Number of prescription medications					
Historic	74	3.80	2.97	3.11–4.48	0.03
Contemporary	77	4.84	3.78	3.98–5.70	
Number of physician specialties seen in the year prior					
Historic	74	1.25	0.79	1.07–1.44	<0.001
Contemporary	77	2.02	1.18	1.76–2.29	
Charlson Comorbidity Index (CCI)					
Historic	74	3.49	2.42	2.92–4.05	0.02
Contemporary	77	4.40	3.05	3.71–5.09	

Historic (2006–07) and contemporary (2019–20) cohorts of inpatients under the care of urology. Statistical significance was accepted at the p<0.05 level.

MP 12.11

Determining barriers to care for indigenous patients receiving urological monitoring and management

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Introduction: Concern regarding access to care for marginalized groups has been an ongoing issue for decades. Previous studies have noted multiple concerns regarding obstacles to care that include proximal and distal barriers (i.e., geographical, socioeconomical, cultural) across multiple medical specialties.[1] There has been very limited review of concerns regarding indigenous patients receiving surgical care and currently no identifiable publications to barriers for indigenous patients receiving urological surgical services.[2,3] The purpose of this literature review was to use findings from current publications to determine the most important domains to include in a patient-based questionnaire focused on establishing pertinent barriers impacting indigenous patients undergoing urological management and monitoring.

Methods: A literature review was conducted using the PubMed database, and the MeSH terms "indigenous barriers Canada studies" were used, resulting in 206 results from 2012–2022. The MeSH search results were further narrowed to include only systematic reviews, which resulted in 28 publications. Of these, 17 publications demonstrated enablers and barriers to healthcare for indigenous populations in Canada.

Results: Specific barriers that continued to be reflected most often in the majority of studies reviewed included: knowledge of indigenous culture (n=13), presence of indigenous healthcare workers (n=1), and community collaboration (n=8). Other domains that were highlighted were those of geography, education, racism, mistrust in the healthcare system, access to traditional healings, and separation from community support.

Conclusions: Multiple studies demonstrate similar domains of concern for indigenous patients (both in urban and rural centers) that limit access to care in

various medical specialties. These highlighted domains will assist in optimizing our questionnaire design for assessing barriers to care for indigenous urology patients.
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MP 12.12

Impact of frailty on postoperative complications among elderly patients undergoing major urological procedures

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Introduction: As developed countries' populations age, the number of older individuals undergoing surgery for urological disorders is on the rise. Preoperative frailty evaluation has been linked to worse postoperative outcomes. We sought to assess the impact of frailty on short-term postoperative complications among elderly patients undergoing major urological procedures.

Methods: The American College of Surgeons National Surgical Quality Improvement Program (ACS-NSQIP) database was used to retrieve patients ≥65 years who underwent either radical cystectomy (RC), nephrectomy (NEP), or radical prostatectomy (RP) between 2014 and 2020. Five-item Frailty Index (FFI), a shortened version of the validated 11-item modified Frailty Index (mFI) was calculated in order to measure frailty. It consisted of four categories: non-frail, mildly frail, moderately frail, and frail (FFI= 0, 1, 2, and ≥3, respectively). We evaluated 30-day postoperative complications and readmissions using multivariate logistic regression.

Results: Overall, 59 558 cases were identified. Most underwent RP (49.1%), followed by NEP (34.2%) and RC (16.7%). Higher frailty scores were associated with increased overall postoperative complications (mildly frail OR 1.14 [1.00–1.31]; moderately frail OR 1.29 [1.04–1.60]; frail OR 1.57 [1.14–2.17]). These findings were most prominent in RC patients aged 70–74 (frail OR 5.65 [1.34–24.3]). Across all three procedures, frail individuals also had higher risk of readmission (mildly frail OR 1.29 [1.09–1.52]; moderately frail OR 1.34 [1.04–1.74]; frail OR 1.60 [1.09–2.37]); however, this association was not significant across age groups for RP and NEP patients.

Conclusions: This study suggests that frailty in older patients undergoing major urological surgeries increases the risk of postoperative complications and readmission, particularly for RC patients, where the impact of frailty increases with age. This highlights the need for preoperative frailty assessment in this vulnerable patient population to improve quality of care.

Acknowledgements: This work was supported by the Fonds de Recherche du Québec - Santé (FRQS).