DEPARTMENT OF UROLOGY

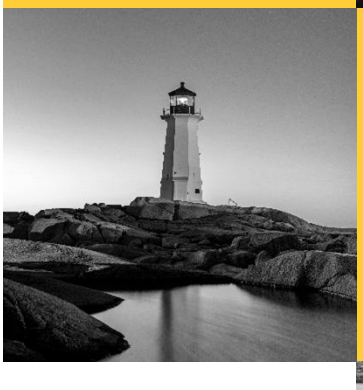
RESEARCH DAY 2026

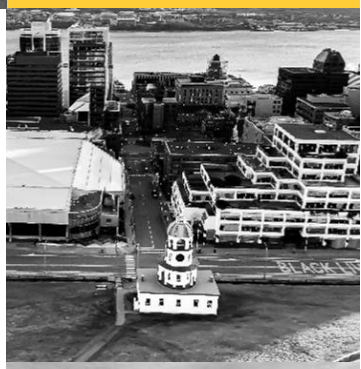
PROGRAM

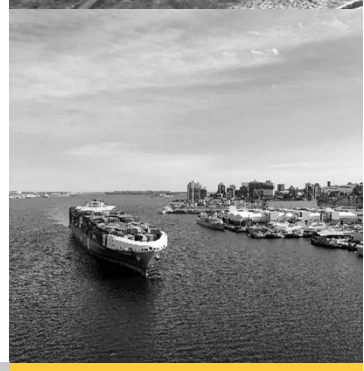
11 May 2026

DALHOUSIE UNIVERSITY

nova scotia health authority







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EVENT DETAILS

Thank you for attending the **33rd Annual Department of Urology Research Day**! This event is a key part of our residency training program and highlights the research achievements of our residents and faculty. The event will include two lectures by keynote speaker, Dr. Rob Siemens, research presentations by residents and students across multiple urology subspecialties, and the presentation of two awards—the Dr. S.A. Award for Resident Research Excellence and the R.P. Bell Urology Research Award for Student Research Excellence.

Breakfast and refreshments are provided.

May 11, 2026
7:00 – 13:00

Location
Weather Watch Room
5th Floor, Dickson Building, VG Site
5820 University Ave, Halifax, NS B3H 1V7

Join Online
Microsoft Teams Meeting
https://teams.microsoft.com/meet/26393924154567?p=j9Kr8Co90H7KiWB1V2
Meeting ID: 263 939 241 545 67
Passcode: Ld2np3kh

EVALUATE THE DAY

Please complete this form to provide feedback and evaluate this year's Research Day.

KEYNOTE SPEAKER

Dr. D. Robert Siemens, MD, FRCSC

Dr. Siemens is Professor and former Chair of the Department of Urology at Queen's University and is cross-appointed to the Departments of Oncology as well as Biomedical and Molecular Sciences. He is a member of the Cancer Care and Epidemiology research unit and is Director of the Centre of Applied Urological Research. He served as Editor of the Canadian Urological Association Journal until 2020 and is now the Editor of The Journal of Urology. His research is focused on urological oncology and has initiated and directed a multi-faceted program including translational investigations as well as health services and clinical trial studies.

SCHEDULE

Time	Presenter	Topic
7:30 – 8:00 AM	Welcome & Breakfast	
8:00 – 8:50 AM	Dr. Rob Siemens	**Keynote Presentation #1** Publish or Perish Redux: Disruptions in Medical Publishing
8:51 – 8:59 AM	**Quick Break**	
9:00 – 9:07 AM	Dr. Martha Foley	Understanding Baseline Sexual Function of Canadian Women Undergoing Bacillus Calmette-Guerin (BCG) Treatment for Bladder Cancer
9:08 – 9:15 AM	Andrea Jacob	Progression of bone loss in patients with prostate cancer on androgen deprivation therapy: a provincial study
9:16 – 9:23 AM	Dr. Kaveh Masoumi-Ravandi	The long game: Treatment patterns and outcomes in octogenarians with high-risk non-muscle invasive bladder cancer
9:24 – 9:31 AM	Marley Blommers	Implementation of a pre-procedural screening questionnaire for risk factor stratification and augmented antibiotic prophylaxis prior to transrectal US-guided prostate biopsy: Impact on urosepsis rates
9:32 – 9:39 AM	Dr. Wyatt MacNevin	Early and late oncologic outcomes associated with real-world extended versus standard pelvic lymph node dissection in men undergoing radical prostatectomy
9:40 – 9:47 AM	Derek Ryan	Early post-void residual trends following surgery for benign prostatic hyperplasia
9:48 – 9:55 AM	Dr. Danielle Stepnuk	Fertility cryopreservation and the impact of gender-affirming hormones amongst transgender and non-binary individuals in Nova Scotia: A retrospective chart review
9:56 – 10:03 AM	Dr. Maren Brodovsky	Equitable engagement and functional recovery among Black patients enrolled in a digital prostate cancer survivorship program: preliminary race subgroup findings from a phase 4 implementation trial
10:04 – 10:11 AM	Andrea Jacob	Revision to InterStim X: clinical outcomes of sacral neuromodulation revision
10:12 – 10:19 AM	Dr. Kaveh Masoumi-Ravandi	To spare or not to spare: Investigating urethrectomy practices and outcomes in female radical cystectomy for muscle-invasive bladder cancer
10:20 – 10:30 AM	**10-Minute Break**	

10:31 – 10:38 AM	Nick Dawe	Diuresis renography scans in patients with hydroureteronephrosis: does the region of interest impact results?
10:39 – 10:46 AM	Dr. Martha Foley	Mapping the Landscape of Care for Neurogenic Bowel Dysfunction in Canada: Results of a National Survey
10:47 – 10:54 AM	Dara Liu	Reducing kidney transplant surgical cancellations in a geographically dispersed population: A quality improvement analysis
10:55 – 11:02 AM	Dr. Stacy de Lima	Early mental health gains in younger men enrolled in a digital prostate cancer survivorship program: preliminary age subgroup results from an international phase 4 implementation trial
11:03 – 11:10 AM	Ali Hamade	Pyeloplasty outcomes in children with complex anatomy: an observational series of reconstruction in concurrent ureterovesical obstruction, duplex, malrotated or ectopic moieties and horseshoe kidneys
11:11 – 11:18 AM	Dr. Wyatt MacNevin	Equitable implementation of PC-PEP in prostate cancer survivorship: Reach, perceived usefulness, and longitudinal mental health outcomes in an international phase IV trial
11:19 – 11:26 AM	Andrea Jacob	Evaluating for low bone mineral density following radical cystectomy and intestinal urinary diversion in patients with bladder cancer
11:27 – 11:34 AM	Marley Blommers	Evaluating clinical outcomes post-orchidopexy for pediatric patients with cryptorchidism: a quality improvement study
11:35 – 11:42 AM	Dr. Kaveh Masoumi-Ravandi	Warmed irrigation fluid and perioperative hypothermia during laser enucleation of the prostate: A retrospective cohort study
11:43 – 11:50 AM	Derek Ryan	Quality Review of Transplant Nephrectomy Pathology Diagnoses at Nova Scotia Health
11:50 – 11:59 AM	**10-Minute Break**	
12:00 – 12:50 PM	Dr. Rob Siemens	**Keynote Presentation #2** The Future of Bladder Cancer Care After 50 Years of BCG
12:50 – 1:00 PM	Awards & Closing	

ABSTRACTS

Understanding Baseline Sexual Function of Canadian Women Undergoing Bacillus Calmette-Guerin (BCG) Treatment for Bladder Cancer

Martha Foley[1], Melissa Huynh[2], Ross Mason[1], Ricardo Rendon[1], Andrea Kokorovic[1]

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Introduction: Though women account for approximately one quarter of bladder cancer diagnoses, literature regarding the impact of their diagnosis and treatment on sexual function remains limited. Intravesical bacillus Calmette-Guerin (BCG) therapy is standard treatment for high-risk non muscle invasive bladder cancer (NMIBC). Sexual dysfunction has been described in men undergoing treatment with BCG, but the impact of BCG therapy on female sexual function remains poorly understood. This study aims to understand the sexual function of women with bladder cancer prior to treatment.

Methods: This prospective observational study recruited patients from the QEII Health Sciences Center in Halifax, NS with newly diagnosed NMIBC from May 2024 to present. Patients completed the PROMIS SexFS questionnaire to evaluate baseline sexual function and satisfaction prior to starting BCG treatment. Descriptive analyses were conducted for baseline characteristics and T-scores were computed for each questionnaire domain.

Results: A total of 10 patients completed the baseline PROMIS SexFS questionnaire. Participants had a mean age of 69.5 years (SD 9.7). Compared to reference population on which the PROMIS SexFS was validated, participants reported greater vaginal and vulvar discomfort (mean T-scores 56.4 (SE 3.6) and 55.3 (SE 6.0), respectively). Additionally, participants reported lower sexual interest, vaginal lubrication, ability to orgasm, and overall sexual satisfaction (mean T-score of 31.9, 36.9 (SE 4.7), 48.2, 39.9 (SE 3.6), respectively).

Conclusions: This study provides novel prospective data on baseline sexual function among Canadian women with NMIBC prior to initiating intravesical BCG therapy. Participants reported greater genital discomfort and lower sexual interest, function, and satisfaction compared with reference populations, highlighting an under-recognized aspect of the bladder cancer experience. Despite a small sample size, this represents the first prospective Canadian evaluation of female sexual function in NMIBC. These findings underscore the need for sex-specific, patient-centered research to ensure survivorship outcomes receive attention alongside oncologic control.

Progression of bone loss in patients with prostate cancer on androgen deprivation therapy: a provincial study

Andrea Jacob[1], Krystal Caldwell[2], Andrea Kokorovic[2], Ross Mason[2], Ricardo Rendon[2]

[1]Faculty of Medicine, Dalhousie University, Halifax, Canada, [2]Department of Urology, Dalhousie University, Halifax, Canada

Introduction: Androgen deprivation therapy (ADT) is the cornerstone of advanced prostate cancer (PCa) treatment, however it has detrimental effects to bone health, accelerating bone demineralization and decreasing bone mineral density (BMD) leaving patients vulnerable to osteoporosis and fractures. Theres is paucity of data describing the course of BMD in patients treated with ADT. The purpose of this study was to investigate bone loss progression in men with PCa on ADT.

Methods: Patients with PCa on ADT were identified using the provincial Drug Information System between January 2020-December 2024. A retrospective chart review was conducted using electronic medical records to determine ADT duration, frequency of dual-energy x-ray absorptiometry (DEXA) scans with fracture risk, and treatment with antiresorptive (AR) therapy.

Results: Among 1749 patients identified, 30% had a first BMD scan. From scan 1: 68% were low risk (LR), 19% moderate risk (MR), and 11% high risk (HR). AR therapy was started in 13% of patients (13% LR, 42% MR, 68% HR). A second scan was performed in 14% of patients with risk classification LR 45%, MR 28%, and HR 25%. Among those on AR, 51.5% remained stable (figure 1). 60% of LR patients worsened while 38% of MR progressed to HR. HR patients on AR largely remained HR (70%) though 30% improved; HR patients not on AR showed no improvement. 83% of patients who improved received AR therapy.

Conclusions: Overall, bone loss is a frequent and serious complication with ADT. Our findings demonstrate that bone loss is a common complication in men receiving ADT. Progression in men initially classified as LR advancing to MR or HR is frequent (60%). significant progression of bone loss in men on ADT, with 60% of patients initially classified as LR advancing to MR or HR. While AR therapy decreases risk fracture in some (%)30%), HR patients remain vulnerable to fractures and skeletal related events. Patients classified as MR or HR should initiate AR treatment as MR patients showed minimal improvement without therapy and HR showed none. These findings highlight the importance of routine BMD monitoring and early AR therapy initiation as recommended by the CUA guidelines. Proactive management and timely intervention are crucial to reducing skeletal complications in patients with compromised bone health.

The long game: Treatment patterns and outcomes in octogenarians with high-risk non-muscle invasive bladder cancer

Kaveh Masoumi-Ravandi[1], Ross Mason[1], Ricardo Rendon[1], Andrea Kokorovic[1]

[1]Department of Urology, Dalhousie University, Halifax, Canada

Introduction: Current guidelines do not provide age-specific treatment pathways for high-risk non-muscle-invasive bladder cancer (HR-NMIBC), and there are limited data characterizing management patterns and outcomes in patients aged ≥80, particularly in Canada.

Methods: We performed a retrospective chart review of patients aged ≥80 with newly diagnosed HR-NMIBC (T1, carcinoma in situ [CIS], variant histology, or large, multifocal, or recurrent high-grade Ta) at a Canadian tertiary centre from 2015 to 2025. Treatment patterns, BCG intensity, and outcomes (overall survival [OS], cancer-specific survival [CSS]) were assessed. Cox models adjusted for age, Charlson comorbidity index (CCI), stage, and CIS.

Results: 103 patients met inclusion criteria (median age 83, IQR 81–86; 82% male; median CCI 7). Treatment was BCG-based in 73%, TURBT alone in 24%. Among BCG recipients (n=75), 96% completed induction but only 59% received adequate maintenance. Re-TURBT was performed in 63% of T1 cases. Only 38% received fully guideline-concordant care. At median follow-up of 31 months, BCG-treated patients had significantly longer OS than TURBT alone (72 vs 21 months, $p<0.001$) and superior 5-year CSS (83% vs 41%). On multivariable analysis, BCG independently predicted improved OS (HR 0.41, $p=0.01$) and higher CCI predicted worse OS (HR 1.29, $p<0.005$). Adequate BCG was associated with markedly lower bladder cancer–specific mortality (9% vs 39%). Competing non-cancer mortality accounted for 52% of all deaths.

Conclusions: Most octogenarians with HR-NMIBC received BCG, though adequate maintenance and guideline concordance remained suboptimal. BCG was associated with significantly improved OS and CSS even in this elderly, comorbid cohort, and adequate BCG intensity was associated with substantially lower cancer-specific death. These findings support BCG use in selected octogenarians and underscore the importance of optimizing treatment intensity in this population.

Implementation of a pre-procedural screening questionnaire for risk factor stratification and augmented antibiotic prophylaxis prior to transrectal US-guided prostate biopsy: Impact on urosepsis rates

Marley Blommers[1], Ben Thompson[2], Andreu Costa[3], Trevor McGrath[3], Michael Rivers-Bowerman[3]

[1]Faculty of Medicine, Dalhousie University, Halifax, Canada; [2]Faculty of Science, Dalhousie University, Halifax, Canada; [3]Department of Diagnostic Radiology, Dalhousie University, Halifax, Canada

Introduction: The current standard of care for prostate cancer diagnosis in Nova Scotia, Canada is a transrectal ultrasound (TRUS)-guided core needle biopsy of the prostate gland. The rate of urosepsis following TRUS-guided prostate biopsy ranges from 0.3%-3.1% in the literature and is associated with significant patient morbidity and healthcare resource utilization. The objective of this study was to evaluate the rate of urosepsis at our institution before and after implementing a pre-procedural screening questionnaire to identify patients at high risk of urosepsis.

Methods: With institutional approval as a quality improvement initiative, we retrospectively evaluated a consecutive series of 992 patients who underwent TRUS-guided systematic and/or targeted prostate biopsy between 2022 and 2025. Prior to the procedure, a nurse contacted each patient and screened for the following risk factors: diabetes; immunosuppression; recent hospital admission or antibiotic use; history of antibiotic resistance; prior prostate biopsy-related urosepsis; and healthcare worker. The checklist was adopted in October 2023. Patients who screened positive received 2 mg/kg tobramycin IM (to a maximum of 200 mg) 1 hour prior to the procedure, in addition to routine oral antibiotic prophylaxis. Electronic medical records, including imaging studies and discharge reports, were reviewed to identify patients with urosepsis. Urosepsis rates were compared across patient groups (Fisher's exact test).

Results: 992 patients [mean (SD) age, 67 (7) years] underwent prostate biopsy during the study period. 457 patients were screened using the questionnaire and 535 were not screened. Twenty of 992 patients (2.0%) developed urosepsis. The 20 patients [mean (SD) age 68 (6) years] spent a total of 143 days in hospital (median 3 days, range 1-64 days). The organisms cultured were E. coli in 11 cases (55%), Klebsiella in 2 cases (10%), and other/unspecified gram-negative infections in 7 cases (35%). Rates of urosepsis were lower with implementation of the screening questionnaire (2.6 vs. 1.3%, p=0.15), administration of tobramycin (2.2 vs. 1.4%, p=0.59), and fewer (<12) biopsy cores (2.3 vs. 1.4%, p=0.47); however, these differences were not statistically significant.

Conclusions: The rate of urosepsis at our institution decreased from 2.6% to 1.3% with implementation of a pre-procedural screening questionnaire and risk-stratified augmented antibiotic prophylaxis. Although this decrease was not statistically significant (p=0.15), we consider it clinically significant. The 20 patients who developed urosepsis required a total of 143 hospital days, representing substantial patient morbidity and burden to the healthcare system. The low baseline urosepsis rate (2.0%) in our cohort limits the statistical power to detect differences following the screening intervention. We are expanding the study cohort to achieve statistical power and further evaluate the impact of the screening protocol.

Early and late oncologic outcomes associated with real-world extended versus standard pelvic lymph node dissection in men undergoing radical prostatectomy

Wyatt MacNevin[1], Ricardo A Rendon[1], Hamidreza Abdi[2], Rodney H Breau[2], Jonathan Izawa[3], Fred Saad[4], Alan I So[5], Bobby Shayegan[6], Ross J Mason[1]

[1]Department of Urology, Dalhousie University, Halifax, Canada; Division of Urology, [2]The Ottawa Hospital Research Institute, University of Ottawa, Ottawa, Canada; [3]Division of Urology, Western University, London, Canada; [4]Department of Surgery/Urology, Centre Hospitalier de l'Université de Montréal, Montreal, Canada; [5]Department of Urologic Sciences, University of British Colombia, Vancouver, Canada; [6]Division of Urology, McMaster University, Hamilton, Canada

Introduction: In patients with prostate cancer (PCa), the impact of extended pelvic lymph node dissection (E-PLND) during radical prostatectomy (RP) on oncologic outcomes remains controversial. This study examined the association between extended vs. standard PLND (S-PLND) and biochemical recurrence (BCR), an early outcome, as well as metastatic PCa (mPCa), and castration-resistant PCa (CRPC) development, late outcomes, in a multi-institutional cohort.

Methods: High-risk post-RP patients from a Canadian PCa database were analyzed from January 1, 2005, to December 31, 2016. The association between PLND and BCR, mPCa, and CRPC development and complication rate was examined using regression and correlation analysis.

Results: Data were collected from patients who underwent S-PLND (n=494) and E-PLND (n=107). The median followup was 40.1 months, and time to BCR, mPC, and CRPC development was 9.8, 46.0, and 52.1 months, respectively. The median (interquartile range) number of lymph nodes extirpated was 7 (7) and 14 (11) for the S-PLND and E-PLND groups, respectively. E-PLND was associated with increased intraoperative blood loss and higher postoperative complication rate. There were no differences in BCR-free survival based on PLND approach, with 67.1% of S-PLND cases and 71.1% of E-PLND cases reaching BCR-free survival at the end of the followup period (hazard ratio [HR] 0.784 [0.506, 1.215], p=0.28). PLND extent was not a predictor for mPCa progression (p=0.963). Similarly, there were no differences in CRPC-free survival based on dissection type (S-PLND 90.9% vs. E-PLND 89.1%, p=0.561). Lymph node positivity was predictive of BCR, mPCa, and CRPC progression.

Conclusions: E-PLND did not show significant differences in the rates of BCR, mPCa, or CRPC progression when compared to S-PLND. E-PLND was associated with higher complication rates. This study adds to the data exploring the association between PLND and PCa oncologic outcomes.

Early post-void residual trends following surgery for benign prostatic hyperplasia

Derek Ryan[1], Budoor Salman[2], Jon Moore[2], Jesse Ory[2]

[1]Faculty of Medicine, Dalhousie University, Halifax, Canada; [2]Department of Urology, Dalhousie University, Halifax, Canada

Introduction: Holmium laser enucleation of the prostate (HoLEP) and transurethral resection of the prostate (TURP) are established treatments for bladder outlet obstruction secondary to benign prostatic hyperplasia. While improvements in post-operative voiding are well described, patterns of early recovery and the role of post-operative PVR remain incompletely characterized.

Methods: We performed a retrospective review of patients undergoing TURP or HoLEP at two centres between 2022–2024. At our institution, a standardized post-operative day 1 (POD1) trial of void with PVR measurement is routinely performed. The analysis included patients with complete pre-operative (pre-op), POD1, and follow-up PVR data. PVR trends over time were assessed within each group.

Results: Fifty-five patients were included (27 TURP, 28 HoLEP). Mean pre-op PVR was 222.5 mL in the TURP cohort and 276.9 mL in the HoLEP cohort. In the TURP group, PVR decreased to 187.1 mL on POD1 and 57.6 mL at 3-month follow-up, while in the HoLEP group PVR decreased to 102.1 mL on POD1 and 28.4 mL at 3-month follow-up. Early reduction in PVR (pre-op to POD1) was substantially greater following HoLEP at 174.8 mL (63.1%) compared to 35.4 mL (15.9%) for TURP, while total reduction (pre-op to follow-up) was 164.9 mL (74.1%) and 248.5 mL (89.7%), respectively. Reduction in PVR from pre-op to POD1 was significant following HoLEP but not TURP, while reductions to follow-up were significant in both groups.

Conclusions: Both TURP and HoLEP result in significant improvement in bladder emptying; however, recovery trajectories differ between procedures. TURP demonstrates more gradual improvement over time, with PVR remaining elevated early and improving at follow-up, whereas HoLEP is associated with a greater early reduction in PVR. These findings call into question if a formal trial of void with PVR is necessary in men after HoLEP. Future study may clarify whether early PVR can guide post-operative expectations and follow-up.

Fertility cryopreservation and the impact of gender-affirming hormones amongst transgender and non-binary individuals in Nova Scotia: A retrospective chart review

Cameryn Evans[1], Danielle Stepnuk[2], Elizabeth G Blundon[3], Jesse Ory[4]

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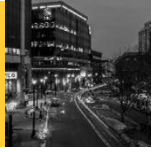
Introduction: Transgender and non-binary (TGNB) individuals represent a growing part of the population. Gender-affirming care improves outcomes in this group, but gender-affirming hormones (GAH) carry a notable and potentially irreversible risk to fertility. Our objective was to investigate fertility preservation trends amongst TGNB individuals and further explore the impacts of GAH on gamete quality.

Methods: We conducted a retrospective chart review to identify all individuals who underwent gamete cryopreservation between 2017 and 2024 at Nova Scotia's central fertility clinic. We collected demographic data, referral information (including duration of GAH usage), and semen analysis results including total motile sperm count (TMSC). We compared TMSC between groups using Welch's t-test on log(TMSC+1) with bootstrap-derived ratios and CIs. Secondary analyses assessed extent of the effect, prevalence of TMSC=0 (Fisher's exact test), and the contribution of individual semen parameters to TMSC differences.

Results: Forty-five TGNB individuals were referred for fertility cryopreservation between 2017 and 2024, with increasing referral rates over time. TMSC was higher in GAH-naïve individuals compared with those with prior hormone exposure (~4-fold difference). Individuals who discontinued GAH prior to cryopreservation had higher TMSC than those who continued therapy. Reduced motility appeared to be the primary contributor to differences in semen quality.

Conclusions: GAH exposure is associated with reduced semen quality, though partial recovery may occur following cessation. These findings support early counselling and consideration of fertility preservation prior to hormone initiation.



Equitable engagement and functional recovery among Black patients enrolled in a digital prostate cancer survivorship program: preliminary race subgroup findings from a phase 4 implementation trial

Maren Brodovsky[1], Nathan Smith[2], Gabriela Ilie[3], Ricardo A Rendon[1], Ross Mason[1], Andrea Kokorovic[1], Howard Evans[4], Kunal Jana[5], Jasmir Nayak[6], Christopher Wallis[7], Susan Ellard[8], John Thoms[9], Robert Thompson[10], Larry Pan[10], Ernest Chan[11], Stanley Flax[12], Nikhilesh Patil[10], David Bowes[10], Peter Dickens[13], Duvern Ramiah[14], Shingai Mutambirwa[15], Robert Rutledge[10]

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Introduction: Black patients with prostate cancer experience disproportionate disease burden yet remain underrepresented in survivorship programs. We evaluated race-based differences in engagement, acceptability, and outcomes in the Prostate Cancer Patient Empowerment Program (PC-PEP).

Methods: This international Phase 4 single-arm prospective trial evaluated PC-PEP, a six-month, daily, home-based digital survivorship program. Participants completed assessments at 0, 6, 12, and 24 months. We compared (1) eligibility-adjusted follow-up by race, (2) 6-month program ratings, and (3) changes in psychological distress (Kessler Psychological Distress Scale), health-related quality of life (SF-12 Mental and Physical Component Scores), and urinary incontinence (EPIC). Outcomes were examined using Gaussian generalized estimating equation models, adjusting for demographic, clinical, treatment, time, race, and timexrace interactions.

Results: Eligibility-adjusted follow-up was comparable between Black and non-Black participants at 6 months (81.2% vs 80.5%) and 12 months (66.7% vs 68.9%), with lower Black follow-up at 24 months (44.4% vs 59.7%). Acceptability at 6 months was uniformly high: median likelihood of recommending PC-PEP was 10 (IQR 8–10) in both groups, with 92% giving positive recommendations (≥6/10).
Baseline psychological distress and mental health–related quality of life did not differ by race (K10 median 13 vs 15, p=0.20; MCS median 55 vs 55, p>0.90). Psychological distress decreased over time (6 months β=−0.75, 95% CI −1.20, −0.30; 12 months β=−0.86, 95% CI −1.40, −0.33), with no differential trajectories by race (all time×race interactions p≥0.80).
Black participants experienced greater improvements in urinary continence at 6 (time×Black β=13.0, 95% CI 0.88, 25.0; p=0.036) and 12 months (β=9.4, 95% CI 0.07, 19.0; p=0.048) relative to non-Black participants.

Conclusions: Black participants demonstrated high engagement and acceptability, comparable mental health outcomes, and greater early gains in urinary continence, supporting PC-PEP as a scalable approach for equitable functional recovery.

Revision to InterStim X: clinical outcomes of sacral neuromodulation revision

Andrea Jacob[1], Stewart Whalen[2], Karthik Tennankore[3], Jerzy Gajewski[2], Ashley Cox[2]

[1]Faculty of Medicine, Dalhousie University, Halifax, Canada, [2]Department of Urology, Dalhousie University, Halifax, Canada; [3]Division of Nephrology, Dalhousie University, Halifax, Canada

Introduction: Sacral neuromodulation (SNM) is an effective therapy for refractory overactive bladder (OAB), urgency incontinence (UUI), non-obstructive urinary retention (NOUR), and fecal incontinence (FI). Since 1999, the Interstim system has evolved from the original Interstim, to InterstimII and now InterstimX. This study aims to investigate device performance and outcomes in patients who have undergone revisions from early versions of Interstim to InterstimX.

Methods: A retrospective chart review was conducted by identifying patients who underwent implantation of Interstim X, between February 2024 and October 2025 through surgical records. Patients who underwent a revision from an earlier device (REV) were compared to those undergoing their first InterstimX implant (INTX). The primary outcomes were success of implant at 3 month and device programming difficulty.

Results: 51 patients were identified. Indication for InterstimX implant was UUI (27, 55%), OAB (4, 8%), BPS/IC (11, 22%), NOUR (5, 10%), FI (2, 4%), and neurogenic bladder (2, 4%). 19 patients underwent revision to InterstimX. All patients in the REV group were female versus 29 (91%) in the INTX group, p=0.29. The mean age was 63+/-13 in the REV group compared to 58+/-14 in the INTX group, p=0.23. No intraoperative complications occurred. Device removal was not required in REV, compared with 6 (19%) in INTX (p=0.07). Success rates were higher in the REV group at both 3 months (89% vs 71%, p=0.27) and 12 months (78% vs 64%, p=0.5) compared with INTX. Device programming difficulty (n=43) occurred in 17% of the REV group, compared to 12% in the INTX group, p=0.68.

Conclusions: Overall, patients undergoing revision to InterStimX have an excellent treatment response, with little difficulties programming the new device. InterstimX appears to be a successful treatment modality for those with previous SNM devices. Further understanding into revision success and device performance is crucial to increase awareness among providers and guide future practice.

To spare or not to spare: Investigating urethrectomy practices and outcomes in female radical cystectomy for muscle-invasive bladder cancer

Kaveh Masoumi-Ravandi[1], Derek Ryan[2], Ross Mason[1], Ricardo Rendon[1], Andrea Kokorovic[1]

[1]Department of Urology, Dalhousie University, Halifax, Canada; [2]Faculty of Medicine, Dalhousie University, Halifax, Canada

Introduction: Optimal urethral management during radical cystectomy (RC) in women with muscle-invasive bladder cancer (MIBC) remains poorly defined. We aimed to characterize Canadian urethrectomy practices and compare oncological outcomes of urethra-sparing and urethrectomy groups.

Methods: A national survey was distributed to Canadian uro-oncologists. A retrospective chart review of women who underwent RC for MIBC at a single academic centre (2003–2023) was performed. Overall recurrence was compared between groups using Fisher's exact test. Urethral recurrence was assessed in the urethra-sparing group and compared to published rates. Overall survival (OS), progression-free survival (PFS), and metastasis-free survival (MFS) were analyzed using Kaplan-Meier and log-rank tests. Multivariable logistic regression identified predictors of recurrence.

Results: Sixteen uro-oncologists responded; 56% performed urethrectomy only "sometimes" during female RC (Fig. 1). Among 85 patients (80 urethra-sparing, 5 urethrectomy; 91% ileal conduit), overall recurrence did not differ between groups (43.1% vs 20.0%, p=0.40). In the urethra-sparing group, urethral recurrence was rare (2.8%, 2/72), consistent with published rates of 0–4% in women with non-orthotopic diversion (Fig. 2). No differences in OS (HR 1.08, p=0.92), PFS (HR 0.97, p=0.97), or MFS (HR 0.58, p=0.60) were observed (Fig. 3). Pathologic stage ≥pT2 was the only significant predictor of overall recurrence (OR 7.15, 95% CI 2.10–24.30, p=0.002). Perioperative outcomes did not differ.

Conclusions: Urethrectomy practices during female RC for MIBC vary among Canadian uro-oncologists. Urethral recurrence following urethra-sparing RC was rare at 2.8%, consistent with published literature, with no differences in overall recurrence or survival between groups. Pathologic stage was the primary predictor of recurrence, suggesting routine urethrectomy may not confer oncological benefit. Larger prospective studies are warranted.

Diuresis renography scans in patients with hydroureteronephrosis: does the region of interest impact results?

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Introduction: Hydronephrosis, or urinary tract dilation, is one of the most identified anomalies on pre-natal ultrasound images. This finding is estimated to impact 1-5% of pregnancies with a spectrum of postnatal outcomes. MAG3 diuretic renograms are frequently employed to assess for underlying causes and determine their severity. According to the “well-tempered renogram ” the kidney and entire dilated portion of the urinary tract should be encompassed in the region of interest (ROI) for MAG3 studies. However, there is a paucity of literature comparing relevant outputs of diuretic renography, and correlation to clinical outcomes, in patients with HUN if the ROI includes only the kidney and renal pelvis (KRP) vs. if it includes the kidney, renal pelvis, and dilated ureter (KRPU).

Methods: This is an ongoing retrospective study analyzing diuretic renography scans of patients with HUN at the IWK Health Centre. Scans were reprocessed by nuclear medicine technologists to compare results between ROIs of KRP versus KRPU. Structured chart reviews were conducted for patients with reprocessed scans using REDCap.

Results: To date, MAG3 Renal Lasix scans have been reprocessed and reviewed for 28 kidneys (18 right, 10 left, 19 patients)) with documented HUN. Mean age at the time of MAG3 was 11.9 months old. The most common causes of HUN were VUR (n=8, 42.1%) and primary obstructive megaureter (n=7, 36.8%). Overall mean differential function did not differ significantly based on ROI (KRP 54.77% v. 53.37%, p=0.20). Overall mean T1/2 did not differ significantly based on ROI (KRP 8.72 min v. KRPU 9.07 min, p=0.27). Obstruction classification based on standard T1/2 thresholds (<10, 10–20, >20 minutes) showed excellent agreement between methods, with no significant difference in the proportions of non-obstructed, indeterminate, or obstructed kidneys (p=0.94). Reclassification of obstruction category occurred in only 1 of 28 kidneys (3.6%).

Conclusions: Our early data suggests that for pediatric patients with HUN, there is no clinically significant impact on the on the results of MAG3 renal Lasix scans between ROIs of KRP versus KRPU. Further accrual of reprocessed scans, and correlation to clinical outcomes will facilitate subgroup analysis by causes of HUN to better understand the role of the “well-tempered renogram” in the diagnosis and management of HUN.

Mapping the Landscape of Care for Neurogenic Bowel Dysfunction in Canada: Results of a National Survey

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Introduction: Neurogenic bowel dysfunction (NBD) often impacts children with spinal dysraphism. Effective NBD management improves social continence and may reduce adverse outcomes associated with neurogenic lower urinary tract dysfunction (NLUTD). Stepwise programs incorporating dietary, oral laxative interventions, and retrograde/antegrade irrigations can achieve meaningful results.
This nationally distributed survey aims to identify Canadian clinicians are primarily responsible for NBD care and determine the level of therapy and intervention these clinicians are comfortable recommending. Understanding current practice patterns will identify gaps in care delivery, inform multidisciplinary collaboration, and provide a foundation for developing national consensus guidelines.

Methods: A REDCap survey was distributed to relevant Canadian clinicians. The survey captured background information (employment role, involvement in NBD care, local NBD care arrangements) and explored participants' comfort levels with various aspects of NBD care.

Results: Twenty-one responses were received from Canadian provinces except Newfoundland. Respondents included paediatric urologists (n=8; 38%); paediatric general surgeons (n = 7, 33%); prescribing nurses (n = 3, 14%); nurse practitioners (NPs) (n = 2; 10%); general urologists and registered nurses (n=1 each, 5%). Most respondents (n=15; 71%) indicated that NDB is managed at a multi-disciplinary spina bifida clinic. Twelve (57%) respondents indicated paediatric urology is primarily responsible for NBD care.
Fifteen (71%) respondents routinely ask about bowel symptoms in children with NLUTD. Comfort levels for NBD care were variable. Nine (43%) were comfortable providing dietary advice, 16 (76%) prescribing oral laxatives, 12 (57%) prescribing retro- and antegrade cleanse regimens and discussing cleanse delivery systems. Three (38%) urologists and 4 (67%) paediatric surgeons were comfortable performing antegrade continence enema surgeries.

Conclusion: The responsibility for NBD care in children with NLUTD is shared between paediatric urologists, paediatric general surgeons, specialised nurses and NPs across Canada and is often achieved through multi-disciplinary collaboration.

Reducing kidney transplant surgical cancellations in a geographically dispersed population: A quality improvement analysis

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Introduction: Kidney transplant surgical cancellations impose a significant burden on patients, donors, and the healthcare systems. Our transplant center in Halifax serves four Atlantic provinces across a vast, geographically sparse region, creating unique challenges for managing waitlisted patients. This study analyzes surgical cancellation causes to identify modifiable recipient factors and propose quality improvement strategies for geographically dispersed populations.

Methods: This retrospective analysis reviewed 85 kidney transplant cancellations (January 2021-July 2025), categorized as donor-related, recipient-related, or both. We detailed cause breakdowns and recipient backgrounds, including comorbidities and geographical distribution.

Results: Among 85 cancellations, 57 were donor-related, 25 recipient-related, and 3 involved both. Donor causes included 28 non-progressing DCD (donation after cardiac death) and 19 unsuitable grafts. Recipient cancellations stemmed from 8 infections (4 COVID-19, 2 influenza), 5 logistical/social issues, 4 cardiopulmonary complications, and 3 tumors. Recipient-related patients exhibited high rates of lifestyle diseases: 84% hypertension, 36% diabetes, 44% dyslipidemia, and 20% obesity. Furthermore, 12% had a cardiac history and 24% had mental health conditions. Notably, 43 cancellations involved patients living over 300 km away. Following cancellation, 4 patients died on the waiting list and 8 withdrew from transplantation.

Conclusions: Donor-related cancellations are largely unavoidable, but recipient-related cancellations can be targeted through enhanced waitlist management. Critical intervention points include controlling lifestyle diseases and preventing infections during the waiting period. Given our dispersed catchment area, future initiatives should focus on strengthening regional collaboration, optimizing remote patient follow-up, and implementing infection prevention strategies.

Early mental health gains in younger men enrolled in a digital prostate cancer survivorship program: preliminary age subgroup results from an international phase 4 implementation trial

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Introduction: Younger men with prostate cancer experience greater psychological distress and poorer mental health–related quality of life (QoL), yet scalable, integrated psychosocial and behavioural survivorship supports are lacking. We examined whether a digital survivorship program (Prostate Cancer Patient Empowerment Program (PC-PEP)) achieved comparable engagement and mental health benefits among younger (<60 yrs) vs older (≥60 yrs) participants.

Methods: This international phase 4 single-arm prospective trial evaluated PC-PEP, a 6-mo home-based digital program integrating exercise, pelvic-floor training, stress reduction, nutrition, and psychological support. Participants (n = 693) completed assessments at baseline, 6, 12, and 24 mo. Outcomes included eligibility-adjusted retention, program acceptability, psychological distress (Kessler Psychological Distress Scale [K10]) and health-related QoL (SF-12 Mental Component Score and Physical Component Score [MCS, PCS]). Gaussian generalized estimating equation models adjusted for demographics, clinical and treatment factors, time, and timexage group interaction. .

Results: Please see table 1 for demographic information and table 2 for psychological health data. Eligibility-adjusted retention was similar between all participants at 6, 12, and 24 mo. Program acceptability at 6 mo was high with a median recommendation score of 10 (IQR 8 – 10) and >92% providing positive ratings. At baseline, younger participants had worse mental health and distress (higher K10 and lower MCS (both $p<0.001$)). Psychological distress decreased significantly overtime, with greater long-term improvement among younger men (reductions in K10, and large gains in MCS) and significant improvement in mental health-related QoL. No age-related differences observed in physical health outcomes.

Conclusions: Younger men entered PC-PEP with worse mental health profiles but had comparable engagement and significantly greater long-term improvements in psychological distress and mental health–related QoL. These findings support integration of scalable digital survivorship programs into routine prostate cancer care to address age-related mental health disparities.

Pyeloplasty outcomes in children with complex anatomy: an observational series of reconstruction in concurrent ureterovesical obstruction, duplex, malrotated or ectopic moieties and horseshoe kidneys

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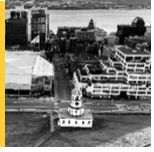
Introduction: Ureteropelvic junction obstruction (UPJO) is a common cause for congenital hydronephrosis, often requiring surgical correction. Concurrent renal anomalies such as duplex, malrotated, ectopic, horseshoe systems and concurrent ureterovesical junction obstruction (UVJO) can introduce surgical complexity and may carry an increased risk of surgical complications and re-do pyeloplasty.

Methods: We reviewed 816 children who underwent pyeloplasty at our institution between 2008 and 2023, identifying 59 children with a concurrent renal anomaly. Patients with solitary kidney without abnormal anatomy were not included in this analysis. Data was abstracted regarding demographics, surgical details, pre- and post-operative imaging findings. The primary outcomes were surgical complications and re-do pyeloplasty.

Results: Baseline characteristics were similar amongst complex patients and matched controls, including age, sex, symptoms and side of anomaly. Complex patients had a longer median procedure time (159 min. [IQR: 123, 183.5] vs 130 [IQR: 110.5, 161], p=0.01). No differences were found in primary outcomes, including re-operation (5% per group) and complication rate (17% vs 27%, p=0.73). No differences were found in functional measures between groups. Within the complex cohort, no differences were found in baseline characteristics, with minor differences in surgical approach found in some groups (p=0.012). Complication rates differed (p=0.041), ranging from 0% in malrotated kidneys to 54% in horseshoe kidneys. No differences were found in rate of re-operation (p=0.19). Pre-operative APD was similar amongst the 5 groups, however there were differences in second post-operative APD (p=0.015) that resolved at final follow-up (p=0.54).

Conclusion: Pyeloplasty in patients with complex anatomy is feasible and careful attention is required on follow-up imaging. We did not appreciate an increased rate of re-do pyeloplasty compared to the classically accepted 5% failure rate.



Equitable implementation of PC-PEP in prostate cancer survivorship: Reach, perceived usefulness, and longitudinal mental health outcomes in an international phase IV trial

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Introduction: Many prostate cancer survivors lack access to structured survivorship care, particularly in rural settings. PC-PEP is a daily, six-month digital program integrating exercise, stress reduction, pelvic-floor training, nutrition, and behavioural self-monitoring. Building on phase 3 efficacy evidence, we evaluated rural versus urban implementation outcomes and longitudinal mental health in a phase 4 international cohort.

Methods: This international phase 4, single-arm prospective interventional trial evaluated PC-PEP (October 2022-ongoing), a daily, six-month, home-based digital survivorship program integrating physical fitness, pelvic-floor muscle training, stress reduction, nutrition, and psychological support and its efficacy based on participant rurality. Rural versus urban participant program evaluation metrics were compared and analyzed at 6-, 12-, and 24-months. Changes in psychological distress (K10) and SF-12 mental health–related quality of life over time were compared.

Results: Among 689 respondents (urban, n=483; rural, n=206), follow-up completion was similar at 6 months (82.1% vs 77.5%), 12 months (68.5% vs 69.8%), and at 24 months (61.5% vs 55.3%). Acceptability was high with likelihood of recommending PC-PEP being 10/10 (8–10) in urban and 10/10 (9–10) in rural participants (p=0.20) (Table 1). Positive recommendation was 93% (urban) vs 92% (rural) (p=0.60) and overall usefulness was rated as 9/10 (7–10) in both groups (p=0.037). Rural participants rated pelvic-floor training more useful (p=0.036) and more often rated dietary guidance positively (86% vs 77%, p=0.026). K10 psychological distress decreased at 6, 12, and 24 months and mental health improved over time, with no evidence of differential trajectories by rurality.

Conclusions: PC-PEP demonstrated equitable reach and high perceived usefulness across rural and urban contexts, alongside improved mental health over time. These findings support scalable, equity-oriented delivery of survivorship care for prostate cancer.

Evaluating for low bone mineral density following radical cystectomy and intestinal urinary diversion in patients with bladder cancer

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Introduction: Radical cystectomy (RC) with intestinal urinary diversion (IUD) is standard treatment for muscle-invasive bladder cancer (MIBC). IUD is associated with metabolic acidosis, which adversely affects bone health. Bone mineral density (BMD) screening practice with dual energy x-ray absorptiometry (DXA) in this population remains poorly characterized. We evaluated BMD screening, fracture risk, and longitudinal metabolic trends following RC with IUD.

Methods: We performed a retrospective chart review of patients undergoing RC with IUD between February 2009 to April 2019 at a tertiary academic centre. Demographics, smoking status, fracture history (hx), DXA screening, and laboratory values including renal function markers, electrolytes, glucose, calcium, and vitamin B12 were collected preoperatively and up to five years postoperatively. Descriptive statistics and chi-square tests examined associations between fracture hx, smoking, and DXA use.

Results: 239 patients were included (mean age 68 yrs); 16% had a prior fracture and 65% had a smoking hx. 13% underwent DXA (mean 4.4 yrs post-RC), mainly for age (36%) or fragility fracture (31%). 59% of these were classified as moderate- or high- risk (27% osteopenia, 32% osteoporosis). Follow-up DXA was uncommon. Prior fracture hx was weakly associated with DXA use (r=0.23), while T-score and fracture risk were moderately correlated (r=0.51). Mean creatinine rose from 108 µmol/L preoperatively to 125–128 µmol/L in yrs 1–3, and bicarbonate fell from 26.7 mmol/L preoperatively to 20.7 mmol/L by yr 5, consistent with chronic metabolic acidosis.

Conclusions: BMD assessment following RC with IUD is infrequent and reactive, despite prevalent risk factors and abnormal findings. Longitudinal metabolic trends suggest renal and acid–base disturbances that predispose patients to fracture. A study limitation was the inability to reliably track fractures post-RC. Future prospective studies are needed to assess fracture incidence and the role of routine DXA on fracture risk and survivorship.

Evaluating clinical outcomes post-orchidopexy for pediatric patients with cryptorchidism: a quality improvement study

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Introduction: Undescended testicles are a common pediatric urologic condition present in 2%-8% of male patients with normal birth weight. Canadian guidelines recommend surgical correction, via orchidopexy between 6-18 months to facilitate self-examination, improve fertility and reduce risk of malignancy. Orchidopexy outcomes of maritime patients have not previously been studied. The primary objective of the study is to assess surgical success of patients who underwent orchidopexy at IWK Health Centre as defined by recurrence needing additional surgery.

Methods: A retrospective chart review was conducted of patients who underwent orchidopexy at IWK Health Centre from January 1, 2015 – June 30, 2024. Demographic characteristics, operative details, surgical approach, recurrence, recovery time, and follow-up outcomes were analyzed. Descriptive statistics were used.

Results: Average age at time of surgery was 4.75 years old (0-15 years old, SD = 4.2). Open inguinal is the most common surgical approach, with the right-sided (54.3%) being frequently performed followed by the left side (42.1%). Scrotal orchidopexy rates increased (left: 3.7% to 8.7%; right: 3% to 9.5%). 85.3% of patients had a follow-up appointment, with 68% demonstrating positive outcomes such as symmetrical testicles without atrophy. Most pre-operative ultrasounds were ordered by family doctors (71%). Overall, redo orchidopexies was rare (2.8%).

Conclusions: Orchidopexy at the IWK Health Centre showed favourable outcomes with low recurrence rates. A shift in surgical approach from inguinal to scrotal has transpired in recent years. Patients are commonly undergoing surgery outside of recommended guideline age windows which may impact future testicular function which warrants further attention and follow up.

Warmed irrigation fluid and perioperative hypothermia during laser enucleation of the prostate: A retrospective cohort study

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Introduction: Intraoperative hypothermia is a well-documented risk during transurethral resection of the prostate (TURP) and can contribute to postoperative complications. Anatomic endoscopic enucleation of the prostate (AEEP) often involves longer operative times than TURP, yet minimal data exist regarding the risk of hypothermia during these procedures. This study aimed to assess whether the use of warmed irrigation fluids reduces perioperative hypothermia during AEEP.

Methods: A retrospective single-centre cohort study was conducted of patients undergoing AEEP from May 2023 to July 2025 at the Queen Elizabeth II Health Sciences Centre. Warmed irrigation fluids were implemented in July 2024; procedures prior were classified as the pre-warming cohort, and those from August 2024 onward as the post-warming cohort. Intraoperative temperatures were recorded at 15-minute intervals. Hypothermia was defined as any recorded core temperature <36.0°C. Primary outcomes included the incidence and duration of hypothermia, prolonged hypothermia (≥30, ≥45, and ≥60 minutes), and post-anesthesia care unit (PACU) arrival temperature. Baseline characteristics and intravenous fluid volumes were compared between groups.

Results: A total of 108 patients were reviewed, of whom 64 (59.3%) had complete intraoperative temperature data (34 pre-warming, 30 post-warming). Baseline demographics were comparable between groups. The incidence of hypothermia was similarly high in both cohorts (76.5% vs. 83.3%, $p = 0.71$). However, the pre-warming group demonstrated a trend toward longer mean duration of hypothermia (71.0 vs. 53.5 minutes, $p = 0.17$) and more consecutive hypothermic readings (4.7 vs. 3.6, $p = 0.17$). PACU arrival temperatures were significantly higher in the post-warming group (36.28°C vs. 35.87°C, $p < 0.005$). The pre-warming cohort also received significantly greater intravenous fluid volumes (1209 ± 375 mL vs. 1003 ± 210 mL, $p = 0.023$).

Conclusions: Warmed irrigation fluids were associated with significantly higher PACU arrival temperatures and a trend toward shorter duration of intraoperative hypothermia during AEEP. Although no statistically significant differences were observed in hypothermia incidence or prolonged hypothermia thresholds, these findings suggest that warmed irrigation may play a role in preventing perioperative hypothermia during AEEP, potentially conferring clinically relevant benefits.

Quality Review of Transplant Nephrectomy Pathology Diagnoses at Nova Scotia Health

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Introduction: Transplant nephrectomy is performed infrequently, as failed renal allografts are often left in situ unless there is a clear indication such as infection, graft intolerance, vascular complications, or suspected malignancy. In most cases, the clinical scenario is well-defined at surgery, and it is unclear how often pathology adds information beyond the clinical indication or informs subsequent care.

Methods: We conducted a retrospective quality improvement review of transplant nephrectomy cases at Nova Scotia Health between 2018–2025. Cases were identified through a laboratory information system search, and clinical and pathology reports were reviewed. Indications for nephrectomy and pathology diagnoses were grouped into predefined categories, and concordance was assessed based on agreement between clinical indication and pathologic diagnosis.

Results: Sixteen transplant nephrectomy cases were identified. Infection was the most common indication (6/16, 38%), followed by early graft failure/technical complications (4/16, 25%), chronic graft failure (2/16), suspected malignancy (1/16), and other indications (3/16), including extrarenal malignancy and space for retransplantation. Pathology most frequently demonstrated vascular/ischemic or chronic rejection-related changes. Overall, clinical indication and pathologic diagnosis were concordant in 12 of 16 cases (75%). Discordance was observed exclusively in infection-related cases, where pathology demonstrated ischemic or chronic injury without infection.

Conclusions: Transplant nephrectomy is selectively performed for defined indications, and pathology findings are typically consistent with the clinical indication. While discordance occurs, particularly in infection-related cases, findings are generally not unexpected and do not appear to alter immediate management. Pathology may provide additional information in select cases, including uncommon findings that may be relevant when planning future transplantation.

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