Syllabus

41st Annual J.K. Wyatt Urology Residents Research Day

Friday, April 24, 2026
Ronald D. Schmeichel Building for Entrepreneurship & Innovation,
Western University,
London, Ontario

London Health Sciences Centre

St. Joseph's Health Care London

Schulich Medicine & Dentistry

Western

Remembering Dr. John (Jack) Kenneth Wyatt

Jack Wyatt completed his undergraduate and medical school training at Western. During his university days he excelled in sports and was captain of the Western football team. His medical school classmates described him as the class prankster.

After completion of residency training Dr. Wyatt began his urological career in 1960 at Victoria Hospital, practicing general urology with a special interest in cancer and reconstructive surgery. He later went on to serve as Residency Program Director and Division Chair and aided the building of the Western Urology division into a strong clinical and academic program.

Dr. Wyatt is fondly remembered by alumni for his care in their well-being as residents, and his sharp clinical acumen. He was also a great storyteller with a razor-sharp wit and dry sense of humor. He is remembered by former patients for his commonsense approach, easy -going nature and empathy.

During his career Dr. Wyatt was actively involved in both the Northeastern Section of the American Urological Association and Canadian Urological Association. He served as CUA President in 1984.

Dr. Jack Wyatt passed away in 2004 after a long and distinguished urological career. We are indebted to his many contributions to Urology in London and beyond. His legacy is celebrated through our annual Research Day.

2026 Guest Professor: Dr. Ashley Cox

Associate Professor, Department of Urology, Dalhousie University

Dr. Cox attended medical school at the University of Western Ontario before completing urology residency training at Dalhousie University. Dr. Cox then returned to Ontario for two years to complete her fellowship training in Reconstructive and Female Urology. In addition to joining Dalhousie Urology in 2013, she also obtained a master's degree in clinical Epidemiology and Health Care Research at the University of Toronto. She is the past Urology Residency Program Director and the current Director of the Female and Functional Urology Fellowship Program at Dalhousie University. Dr. Cox is the EDIA Officer and Secretary for the Canadian Urological Association (CUA) and Secretary of the Functional and Reconstructive Urology Society of Canada (FRUSC).

2026 Talk Titles:

1. ***Female Stress Urinary Incontinence: The Common and the Complex***

   Objectives:
   - i) To review guideline-based treatments for female stress urinary incontinence in 2026
   - ii) In a case-based fashion, discuss treatment options for stress urinary incontinence in complex scenarios

2. ***Gender Equity in Urology: Where are we in 2026?***

   Objectives:
   - i) Analyze current gender-based disparities in urology
   - ii) To assess changes in the demographics of Canadian urologists
   - iii) To discuss way to minimize gender-based disparities in the future

JK Wyatt Urology Residents Research Day

Friday, April 24, 2026
Ronald D. Schmeichel Building for Entrepreneurship and Innovation
Western University, London, ON

Objectives:

1. At the conclusion of the program, participants will be capable of describing the current landscape with respect to equity, diversity and inclusion as it applies to urology.
2. At the conclusion of the program, participants will be capable of managing basic functional urology problems.
3. At the conclusion of this program, participants will be capable of describing the clinical and basic science projects conducted by Western University Trainees in the following areas: 1. Pediatrics; 2. Oncology; 3. Endourology; 4. Transplantation; 5. Medical Education; 6. Functional Urology

AGENDA

7:00 - 7:50 Registration

8:00 - 8:10 Welcome and Introductions: Dr. S. Pautler, Dr. J. Bjazevic, Dr. A. Sener

SESSION I: Fundamental Sciences and Surgical Innovation Node **Moderator: Dr. B. Inman**
5 minute presentation + 5 minute Question/Answer Period

08:10-08:20 B. Li: Three-Dimensional Reconstruction of Cystoscopic Video for Surgical Planning: A Feasibility Study (Dr. N. Power)

08:20-08:30 A.Gupta: Development of a Novel Imaging-based Surgical Complexity Score for Radical Cystectomy (Dr. J. Izawa)

08:30-08:40 M. Smith: Comparison of Clinical Outcomes and Cost. Mini vs. Standard PCNL for Renal Calculi: Update (Dr. J. Denstedt)

08:40-08:50 S. Iereidis: Comparison of the clinical outcomes and the Laser energy consumption of Holmium:YAG (Ho:YAG) laser versus the Thulium Fiber Laser (TFL) for the treatment of upper urinary tract calculi (Dr. H. Razvi)

08:50-09:00 R. Ferreira: Optilume balloon dilation for urethral strictures: Real world success of and time to reintervention. (Dr. B. Welk)

09:00-09:10 L. Scanlon: Congestive Nephropathy as a Paradigm Shift in Understanding Renal Dysfunction in RCC with IVC Tumour Thrombus (Dr. N. Power)

09:10-09:25 **Faculty Lecturer, Dr. Melissa Huynh:** *Contemporary Imaging of Renal Cell Carcinoma*
Objectives: i) Review conventional imaging of renal cell carcinoma , ii) Describe the contemporary role of PET imaging in clear cell renal cell carcinoma *10- minute presentation + 5 minute Question/Answer Period*

9:30-10:00 Refreshment/Health Break (30 minutes)

SESSION II: Quality Improvement & Patient Centered Research **Moderator: Dr. N. Power**
5 minute presentation + 5 minute Question/Answer Period

10:10-10:20 J. Wong: Office-Based Versus Operating Room Circumcision: A Comparative Cost Analysis (Dr. J. Campbell)

10:20-10:30 H. Rotz: Cost and Environmental Impact of Reusable and Single-Use Flexible Ureteroscopes at a Canadian Academic Centre (Dr. J. Denstedt)

10:30-10:40 T. Ismail: The efficacy of prebiotic HMOS in Improving Renal Transplant Outcomes (Dr. A. Sener)

10:40-10:50 C. Wang: Single-Centre 5-Year Retrospective Analysis of Post-TRUS Prostate Biopsy Infections: A Quality Improvement Initiative (Dr. S. Pautler)

10:50-11:00 M. Nejad Mansouri: Cystectomy Quality Review Following Identification of Elevated Positive Surgical Margin Rates by Cancer Care Ontario: A Single-Centre Quality Improvement Study (Dr. N. Power)

11:00-11:10 A. Alturki: The Prevalence of Vitamin D Deficiency Among Patients with Calcium Oxalate Stones and the Clinical and Metabolic Impact of Vitamin D Supplementation (Dr. J. Bjazevic/Dr. H. Razvi)

SESSION III: Surgical Education Node **Moderator: Dr. P. Wang**
5-minute presentation + 5-minute Question/Answer Period

11:10-11:20 V. Turnbull: Use of the Computer-based Assessment for Sampling Personal Characteristics (CASPer) Situational Judgement Test in Undergraduate and Post-graduate Medical Admissions: A Scoping Review of the Available Evidence (Dr. J.Bjazevic)

11:20-11:50 **Guest Professor, Dr. Ashley Cox:** *Female Stress Urinary Incontinence: The Common and the Complex*
Objectives: i) To review guideline-based treatments for female stress urinary incontinence in 2026
ii) In a case-based fashion, discuss treatment options for female stress urinary incontinence in complex scenarios
– 20-minute presentation + 10-minute Question/Answer Period

12:00-01:00 Lunch Break and Social Networking

01:10 -01:25 **Faculty Lecturer, Dr. Blayne Welk:** *Urodynamics in Male Patients with BPH/LUTS—More Questions Than Answers?*
Objectives: i) Describe the potential role of urodynamic testing in evaluating men with BPH/LUTS who are being considered for outlet surgery. ii) Interpret key urodynamic findings (e.g., BOO, detrusor underactivity, detrusor overactivity) and describe how they influence surgical outcomes and counselling. iii) Identify clinical scenarios where selective urodynamic testing may meaningfully alter management decisions prior to BPH surgery.
– 10- minute presentation + 5-minute Question/Answer Period

SESSION IV: Big Data/ICES Node **Moderator: Dr. B. Welk**
5-minute presentation + 5-minute Question/Answer Period

01:25-01:35 D. Matti: Sex-specific and obesity-associated differences in stage at presentation of bladder cancer: A multi-centre analysis from the Canadian Bladder Cancer Information System (Dr. J. Izawa)

01:35-01:45 A. Afenu: Immigration Status and Prostate Cancer Diagnostic Pathways and Outcomes in Ontario, Canada: A Population-Based Cohort Study. (Dr. J. Izawa)

01:45-01:55 E. Li: Which medication is most effective for catheter-associated bladder discomfort? A systematic review and metanalysis (Dr. J. Bjazevic)

01:55-02:05 **Golden Stream Quiz** *The greatest test of urology knowledge*
A. Rao

02:05-02:35 **Guest Professor, Dr. Ashley Cox:** *Gender Equity in Urology: Where are we in 2026?*
Objectives: i) Analyze current gender-based disparities in urology, ii) To assess changes in the demographics of Canadian urologists, iii) To discuss ways to minimize gender-based disparities in the future *– 20-minute presentation + 10-minute Question/Answer Period*

02:35-02:45 Thank you, wrap up, surveys

03:00-04:00 Resident Round Table with Guest Professor

This event is an Accredited Group Learning Activity (Section 1) as defined by the Maintenance of Certification Program of the Royal College of Physicians and Surgeons of Canada, and approved by Continuing Professional Development, Schulich School of Medicine & Dentistry, Western University. You may claim a maximum of 4.5 hours (credits are automatically calculated).

This program has received an educational grant from: AbbVie Corporation, Astellas Pharma Canada, Biosyent Pharma Inc., Boston Scientific (BSCI), Cook Canada, Janssen Inc., Karl Storz, Knight Therapeutics Inc., Olympus Canada, TerSera Canada, Tolmar.

Western University
J.K. Wyatt Urology Residents' Research Day
2026

RESIDENTS:

PGY5
Bruce Li
Heather Rotz
Jennifer Wong

PGY4
Danny Matti
Victoria Turnbull

PGY3
Edem (Andy) Afenu
Aurinjoy Gupta
Mehran Nejad Mansouri
Mckinley Smith

PGY2
Roseanne Ferreira
Ai (Erica) Li

PGY1
Taha Ismail
Reddi (Ashwin) Rao
Wei Cen (Cathy) Wang

FELLOWS:

Andrology/Reconstruction
none

Endourology
Abdullah AlTurki
Solon Ierides
Hussain AlRashed

Pediatrics
Hussain Almodhi

Transplant
Ibrahim Asiri
Ali Cansu Bozaci
Tarique Sabah

Uro-Oncology
Mithun Kailavasan
Lorraine Scanlon

THREE-DIMENSIONAL RECONSTRUCTION OF CYSTOSCOPIC VIDEO FOR SURGICAL PLANNING: A FEASIBILITY STUDY

Bruce Li, Chi-End Amy Tai, Nicholas E. Power

Introduction and Objectives:
Accurate characterization and documentation of bladder tumors during cystoscopy are critical for optimal transurethral resection of bladder tumour (TURBT) planning. However, current practice relies on narrative documentation, which is subject to information loss and operator variability.
Emerging advances in computer vision offer the potential to transform cystoscopic video into three-dimensional (3D) spatial representations, which may improve preoperative planning and intraoperative accuracy. Thus, the objective of this study was to evaluate the feasibility of generating accurate 3D renderings of the bladder and tumour(s) using routine flexible cystoscopy video footage.

Methods:
A prospective single-arm pilot study was conducted, including adult patients undergoing diagnostic flexible cystoscopy for suspected or known non-muscle invasive bladder cancer. Cystoscopy videos were recorded using a digital platform and processed through two rendering approaches: (1) a custom Python-based pipeline and (2) a commercially available 3D reconstruction software (Polycam). Generated 3D models aim to reconstruct the bladder lumen and tumor location, including key anatomical landmarks (bladder walls and dome). Feasibility was defined by successful rendering of the bladder and tumor.

Results:
Initial case generation demonstrated the ability to produce three-dimensional reconstructions of the bladder and tumor(s) from routine flexible cystoscopy video footage using both a custom Python-based pipeline and Polycam software. Representative cases highlighted successful visualization of key anatomical landmarks, including multiple bladder walls and tumor location, with variable completeness depending on video quality and visualization conditions. Workflow integration was feasible without requiring modification to standard cystoscopy technique. Quantitative analyses, including rendering success rates, operator-rated accuracy, and comparative utility against dictated cystoscopy reports, are currently being evaluated and will be presented.

Conclusions:
This study provided preliminary evidence supporting the feasibility of transforming standard cystoscopy video into 3D bladder maps. If successful, this approach may enhance preoperative planning, improve tumor localization, and reduce information loss inherent to conventional documentation. Possible implementation could be explored outside of bladder cancer alone, into other areas of urologic endoscopy. Future study is planned to assess the feasibility of implementation into clinical practice and utility in TURBT planning.

DEVELOPMENT OF A NOVEL IMAGING-BASED SURGICAL COMPLEXITY SCORE FOR RADICAL CYSTECTOMY

Aurinjoy Gupta, Jonathan Izawa

Purpose:
Evaluation systems have been developed for renal masses to determine feasibility and safety of partial nephrectomy, such as the RENAL score, PADUA score, and simplified PADUA system. A similar evaluation system does not exist for radical cystectomy (RC), despite open radical cystectomy being a challenging surgery significantly influenced by patient anatomy. Our study aims to use imaging and patient factors to develop a scoring system for radical cystectomy, to identify cases prone to challenging patient anatomy.

Methods:
We included adult male and female patients who underwent RC for bladder cancer at Western University. Our primary endpoints were operative time, estimated blood loss (EBL), and length of hospital stay. We utilized univariate and multivariate logistic regression to identify correlations between preoperative pelvic measurements (pelvic brim width, pelvic floor depth, and abdominal wall thickness) and the endpoints, controlling for known predictors such as age and BMI. P-values less than 0.05 were considered significant.

Results:
A total of 129 patients underwent RC and had imaging data available for analysis. We excluded 12 patients as they underwent major concomitant operations (ie. nephroureterectomy, aortic aneurysm repair). Of the remaining 117 patients, 80% were male and 20% female. The mean operative time was 263 minutes and the average age at time of cystectomy was 68 years.
In univariate testing, wider pelvic brim and female sex were associated with higher EBL, but were not correlated with longer operative time or longer postoperative stay. In a multivariate model, older age and female sex were associated with EBL. Pelvic measurements did not significantly correlate with EBL, operative time, or length of stay.

Conclusion:
An imaging-based evaluation system for RC has not yet been developed. We evaluated the utility of such a metric to mirror the numerous scoring systems used to evaluate surgical complexity for partial nephrectomy. Pelvic measurements did not demonstrate significant correlations with EBL, operative time, or length of stay when controlling for age, sex, and BMI.

COMPARISON OF CLINICAL OUTCOMES AND COST: MINI VS STANDARD PCNL FOR RENAL CALCULI. UPDATED DATA.

Mckinley Smith, Alvin Low, Christina Lim, Linda Nott, Naved Altaf, Haya Ibrahim, John Denstedt

Background:
Treatment of renal stone disease is estimated to cost over 10 billion dollars annually in the US. There is a paucity of data comparing the relative cost of various surgical interventions for urolithiasis. Since the first reports in 2000, mini PCNL has become a well-established alternative to standard percutaneous renal stone removal. A hallmark of less invasive approaches to surgical conditions is the benefit of a decreased hospital stay and thus a potential decrease in costs. This retrospective analysis aims to compare the efficacy, safety and cost of an outpatient mini approach to PCNL as an alternative to standard PCNL in a Canadian context.

Hypothesis:
Mini-PCNL has similar stone-free rates compared to PCNL with the benefit of a shorter hospital stay, fewer complications, and lower cost.

Primary Objective:
Comparing the economic implications of mini-PCNL to standard PCNL.

Secondary Objective:
Compare efficacy, safety, and stone-free rate (zero fragments) and clinically insignificant fragments (<3mm) on postoperative imaging; safety of an outpatient approach, Clavien-Dindo perioperative complications, postoperative pain, and transfusion rates; operative parameters, operative time.

Methods:
This is a retrospective matched cohort study conducted at St. Joseph's Hospital, with patients from July 2019 – July 2024 with ethics approval from the REB. Patient data from the electronic health record were reviewed for those who met the inclusion criteria and underwent a mini-PCNL and those of a matched cohort who underwent a standard PCNL, in the same time frame. Inclusion criteria included those aged 18 years or older having undergone a PCNL procedure to treat a stone, within the study time frame. Exclusion criteria included those with abnormal coagulation profiles, untreated urinary tract infections, and those without pre-operative data or postoperative imaging. Costing data was extracted from the hospital's General Ledger system. Length of stay, procedures details, OR time, supplies usage, medications dispensed, diagnostic imaging obtained, and laboratory tests were included. Data was collected on REDCap and entered by two reviewers. Data was analyzed with SPSS with chi-squared and t-test.

Results:
Mini-PCNL was more cost effective than standard PCNL. The average overall outpatient mPCNL cost was $5128, and $9017 for sPCNL. Preliminary analysis shows maximal stone dimension was larger in the sPCNL group (30.04 ± 15.92mm vs 18.84 ± 4.70mm, <0.001). Stone free rates (72.9% sPCNL, 88.4% mPCNL), complications (2.1% sPCNL, 0% mPCNL), and OR time (62.25m sPCNL, 62.26m mPCNL were similar between groups.

Conclusions:
Mini-PCNL was non-inferior in the main clinical parameters compared to standard PCNL while offering a less invasive approach and decreased disruption of renal parenchyma. In addition, there was a significant cost benefit due to the decreased hospital stay and limited use of disposable surgical equipment. The costing methodology utilized in this study can be applied for comparisons to other interventions for renal stones and non-lithiasis conditions.

Supported by a Research Grant from Surgical Research Administration Inc.

A COMPARISON OF THE THULIUM FIBER LASER VERSUS HOLMIUM:YAG LASER LITHOTRIPSY OF UPPER URINARY TRACT CALCULI: RESULTS OF A RANDOMIZED PROSPECTIVE CLINICAL TRIAL

Eduardo Gonzalez-Cuenca, Mario Basulto-Martinez, Tariq Alotaibi, **Solon Ierides**, Abdulla AlTurki, Jennifer Bjazevic, Hassan Razvi

Objective:
To compare the clinical outcomes and the Laser energy consumption of Holmium:YAG (Ho:YAG) laser versus the Thulium Fiber Laser (TFL) for the treatment of upper urinary tract calculi.

Methods:
A single-center, randomized, prospective controlled trial was conducted. Patients undergoing elective flexible ureteroscopy for renal or uretero-pelvic junction stones were recruited. Inclusion criteria were standardized to stones 8–20 mm in size with a density >600 Hounsfield Units (HU). Patients were randomized 1:1 to Ho:YAG or TFL lithotripsy. Primary outcomes included Total Operative Time (TOT), laser-on time, ablation speed (mm^3/s), and laser energy consumption (J/mm^3). Secondary outcomes included Stone-Free Rate (SFR) at 3 months based on non-contrast CT (NCCT) and complications.

Results:
Fifty-two patients were analyzed using SPSS version 30 (Ho:YAG n=27, TFL n=25). Demographics and stone characteristics were comparable; median stone density was 1058 HU (Ho:YAG) vs 1168 HU (TFL). The TFL group demonstrated a statistically significant faster median ablation speed (1.39 vs 1.03 mm^3/s, p=0.039). This increase in Laser Ablation Speed was also evident in the total laser-on time, laser efficacy, laser energy consumption and laser time consumption trending in-favour to the TFL, the latter having a statistically significant difference (P=0.020). At 3 months, the absolute stone-free rate (Grade A) was 63% for Ho:YAG and 64% for TFL (p=0.938).

Conclusion:
The TFL demonstrated superior ablation speed compared to the Ho:YAG laser for dense renal stones in a clinical setting. However, this increased speed did not translate into a statistically significant reduction in total operative time or improved stone-free rates in this cohort.

REAL WORLD SUCCESS OF OPTILUME BALLOON DILATION AND TIME TO REINTERVENTION

Roseanne Ferreira, Blayne Welk

Background:
Anterior urethral strictures are commonly managed with endoscopic techniques such as dilation or direct vision internal urethrotomy (DVIU), but recurrence rates remain high, particularly in patients with longer or previously treated strictures. Drug-coated balloon (DCB) dilation with paclitaxel represents a novel minimally invasive treatment option. While prospective trials have demonstrated durable outcomes in selected populations, real-world effectiveness across heterogeneous stricture characteristics remains unclear. This study aimed to evaluate treatment failure rates and time to re-intervention following Optilume dilation in a mixed cohort.

Methods:
A retrospective review was conducted of male patients undergoing Optilume dilation for urethral strictures at a single tertiary center between Nov 2020 and Mar 2026. Baseline demographics, stricture characteristics, prior interventions, procedural details, and safety outcomes were collected. Treatment failure was defined as need for any re-intervention (in-clinic dilation, repeat Optilume, or urethroplasty). Kaplan–Meier analysis and Cox proportional hazards modeling were used to assess time to failure and predictors of treatment failure.

Results:
A total of 21 men (mean age 45.1±17.2 years) underwent Optilume dilation (table1), of whom 42.9% met ROBUST III eligibility criteria. Treatment failure occurred in 10/21 patients (47.6%). Median failure-free survival was 19.9 months, with failure-free survival declining to 47.0% at 19.9 months and 25.1% at 29.6 months. There was no significant difference in time to failure between ROBUST III–eligible and non-eligible patients (log-rank p=0.42), although failure rates were numerically higher in eligible patients (66.7% vs 33.3%, p=0.13). On multivariable regression, ROBUST III eligibility was not associated with failure (HR 2.65, 95% CI 0.56–12.48, p=0.22), nor were age or number of prior procedures. Adverse events were infrequent, with urinary tract infection and urinary retention each occurring in 4.8% of patients, and hematuria in 9.5%.

Conclusion:
In this real-world cohort, Optilume demonstrated moderate durability, with nearly half of patients requiring re-intervention by 20 months. Outcomes were not improved among patients meeting ROBUST III eligibility criteria, suggesting that trial-based selection criteria may not reliably predict outcomes in routine practice. While the procedure appears safe, its effectiveness in broader patient populations remains variable. Nonetheless, its minimally invasive nature and potential to provide meaningful symptomatic improvement for up to two years may support its role as an interim or alternative treatment option in selected patients.

Cont'd…

Figure 1.

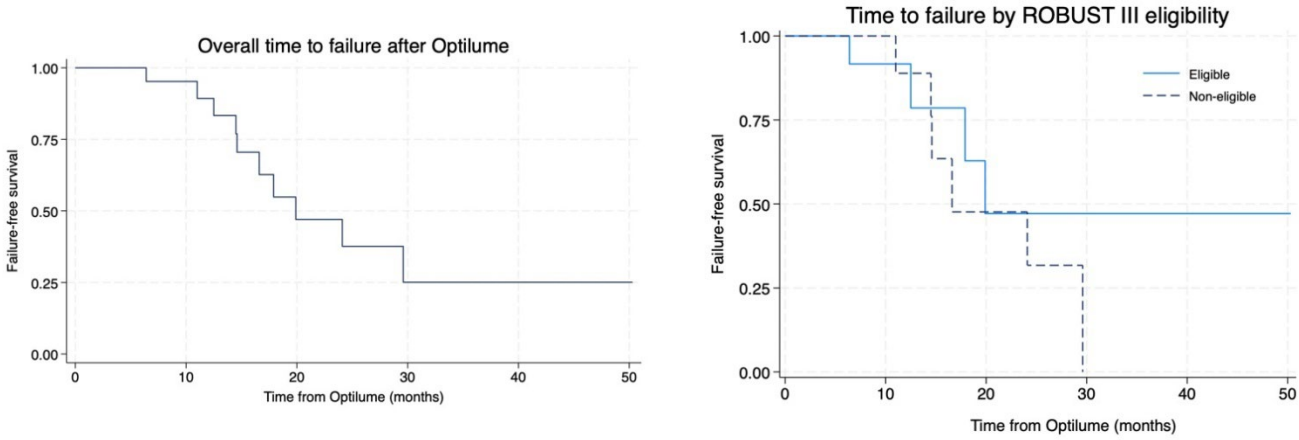

Table 1. Patient Characteristics

Characteristics	(N=21)
Age at treatment, years	45.1 ± 17.2
Etiology, n (%)	
Idiopathic	13 (61.9)
Iatrogenic	4 (19.0)
Lichen sclerosus	2 (9.5)
Hypospadias	1 (4.8)
Trauma	1 (4.8)
Stricture location, n (%)	
Bulbar	17 (81.0)
Bulbo-membranous	2 (9.5)
Membranous	1 (4.8)
Bladder neck	1 (4.8)
Stricture length (cm) *(n=11)*	2.0 (1.0–3.0)
Prior procedures	2 (1–2)
Prior dilations	1 (0–1.5)
Comorbidities, n (%)	
Smoking (current/former)	4 (19.0)
Diabetes	3 (14.3)
Hypertension	2 (9.5)
ROBUST III eligibility, n (%)	9 (42.9)

Categorical: n (%); Continuous: Median (IQR) or Mean ± SD

CONGESTIVE NEPHROPATHY AS A PARADIGM SHIFT IN UNDERSTANDING RENAL DYSFUNCTION IN RCC WITH IVC TUMOUR THROMBUS

Lorraine Scanlon, Talia Pimstone, Jose de Jesus Cendejas-Gomez, Mithun Kailavasan, Pocharapong Jenjitranant, Jonathan Izawa, Melissa Huynh, Brant Inman, Nicholas E Power.

Background:
Renal cell carcinoma (RCC) with inferior vena cava (IVC) tumour thrombus presents a unique surgical challenge. The impact of thrombectomy on postoperative renal function remains poorly understood, particularly given concerns regarding perioperative acute kidney injury (AKI).

Objective:
To compare perioperative renal function trajectories and AKI rates following radical nephrectomy with IVC tumour thrombectomy versus open and laparoscopic radical nephrectomy.

Methods:
We performed a retrospective cohort study of patients undergoing radical nephrectomy with IVC tumour thrombectomy, open radical nephrectomy, or laparoscopic radical nephrectomy. Estimated glomerular filtration rate (eGFR) was assessed at baseline, postoperative days 1–2, and >90 days. Multivariable analyses were performed to adjust for baseline differences. AKI rates were compared across groups.

Results:
Patients undergoing thrombectomy had significantly lower baseline eGFR. All groups experienced an early postoperative decline in renal function. However, the thrombectomy cohort demonstrated a smaller overall decline and higher adjusted eGFR at >90 days compared to other groups. Renal function converged over time across groups. AKI rates were lower in the thrombectomy group.

Conclusions:
Patients undergoing thrombectomy had significantly lower baseline eGFR. All groups experienced an early postoperative decline in renal function. However, the thrombectomy cohort demonstrated a smaller overall decline and higher adjusted eGFR at >90 days compared to other groups. Renal function converged over time across groups. AKI rates were lower in the thrombectomy group.

OFFICE-BASED VERSUS OPERATING ROOM CIRCUMCISION: A COMPARATIVE COST ANALYSIS

Jennifer Wong, Jeffrey Campbell

Background:
Circumcision is a commonly performed urologic procedure that can be completed in either an office setting under local anesthesia or in the operating room under regional or general anesthesia. With increasing emphasis on healthcare resource utilization and cost containment, there is growing interest in determining whether office-based procedures offer meaningful cost advantages while maintaining safety and efficiency. This study aimed to compare the direct costs associated with circumcision performed in the office versus the operating room.

Methods:
We performed a retrospective cost analysis of patients undergoing elective circumcision at a single institution by a single urologist between April 1, 2023-September 30, 2025. Direct and indirect procedural costs in the operating room were obtained from facility fees, operating room costs, supplies, and personnel. Office-based circumcision costs were estimated by subtracting operating room–specific expenditures from the total cost of circumcision performed in the operating room. The billing fees from the surgeon and the anesthetist was not included in this analysis. Demographic and clinical variables were collected to assess baseline comparability between groups. The primary outcome was total procedural cost.

Results:
A total of 60 circumcisions were performed in the operating room and 50 were performed in the office setting. All patients in the operating room group underwent the procedure under general anesthesia, while all patients in the office received local anesthesia. The mean age was 49 years in the operating room group and 50 years in the office group. The most common indication for circumcision in both groups was phimosis (operating room: 47.4%; office: 80.0%).

The average cost of a circumcision completed in the operating room was $2957 per case. While the average cost of a circumcision completed in the office was $1400. Thus, we found a cost-savings of over $1500 per case, which does not include anesthesiologist billing fees. The largest difference in cost was labour. Day surgery and post anesthetic care unit costs alone totalled $811 per case.

The 30-day return rate to the emergency department or urgent care for circumcision-related concerns was 5.6% in the operating room group and 10.2% in the office group. All complications were either Clavien-Dindo I or II, with one Clavien-Dindo IIIb complication in the clinic group.

Conclusion:
Office-based circumcision under local anesthesia is a safe, feasible, and cost-effective alternative to the operating room. In our study, clinic procedures saved over $1,500 per case while freeing operating room time for other cases, potentially reducing wait times. Wider adoption of office-based circumcision could improve resource utilization and lower procedural costs in urologic practice

COST AND ENVIRONMENTAL IMPACT OF REUSABLE AND SINGLE-USE FLEXIBLE URETEROSCOPES AT A CANADIAN ACADEMIC CENTRE

Heather Rotz, John Denstedt

Flexible ureteroscopy is a commonly performed procedure for the management of urolithiasis. The increasing use of single-use flexible ureteroscopes offers an alternative to reusable devices, though the relative cost implications remain institution-dependent. We performed a preliminary single-centre cost analysis comparing reusable and disposable ureteroscope strategies using institutional data from 2025.

At our centre, a total of 642 ureteroscopy cases were performed in 2025. The reusable ureteroscope fleet consists of 10 digital and 5 fiberoptic scopes with an average lifespan of 7–9 years. The average purchase cost per reusable digital scope is $9,125. Reprocessing costs are approximately $140 per sterilization cycle, with two scopes processed per cycle. Over an average lifespan of 8 years, scopes undergo 6.83 repairs (0.85 repairs per year), with a mean repair cost of $8,445.40 per event. Repair costs are higher for digital scopes ($10,072.48) compared to fiberoptic scopes ($5,842.08).

Single-use HugeMed ureteroscope costs range from $5,50 to $7,95 per case depending on model/diameter, while disposable LithoVue scopes cost approximately $900 per use. Preliminary modeling suggests that reusable ureteroscope costs are primarily driven by repair and maintenance, whereas single-use devices have fixed per-case costs.

Final per-case cost calculations and sensitivity analyses are ongoing and will incorporate scope lifespan, repair frequency, and utilization rates. This study will provide institution-specific data to inform cost-conscious ureteroscope selection strategies

THE EFFICACY OF PREBIOTIC HMOS IN IMPROVING RENAL TRANSPLANT OUTCOMES

Taha Ismail, Kait F. Al, Shannon Seney, Mikhaela Moore, Cadence Baker, Jeremy P. Burton, Alp Sener

Approximately three million individuals worldwide are affected by end-stage renal disease, and the scarcity of available donor organs, along with graft failure, results in many patients remaining dependent on dialysis1. The demand for kidney transplantation exceeds the supply of donor organs2, and nearly one-fifth of transplant recipients ultimately resume dialysis due to suboptimal graft performance3. Immunosuppressive regimens following transplantation are frequently associated with gastrointestinal adverse effects (GAE), which may decrease adherence and negatively impact transplant outcomes4. This study investigated the role of the prebiotic human milk oligosaccharide (HMO) 2′-fucosyllactose (2-FL) in influencing the gut and urinary microbiome, and post-transplant gastrointestinal side effects in kidney transplant recipients.

In a randomized, double-blind, placebo-controlled design, participants were assigned to receive either 4 g of 2-FL or placebo twice daily beginning on the first postoperative day following transplantation. The intervention was continued for 90 days, after which participants entered a 90-day follow-up period without supplementation. Stool and urine specimens were obtained, and outcomes including GAE (i.e. indigestion, stool changes, diarrhea, pain/bloating), patient satisfaction via the SF36 questionnaire, and graft function were evaluated over eight study visits throughout the six-month study duration. Safety of the study drug was evaluated by adverse events (AE) which were defined as any untoward medical occurrence in a patient administered a product, which does not necessarily have a causal relationship with the product, such as a worsening of a concomitant illness.

Among 40 participants, 31 remained in the study (17 treatment, 14 placebo). The mean age was 46.7 years, and mean BMI was 27.3 kg/m². The cohort included 24 males (77.4%) and 7 females (22.6%). Rejection was reported in 4/17 (23.5%) of the treatment group and 1/14 (7.1%) of the placebo group. Preliminary findings indicate that 2-FL was safe and associated with significantly fewer related AEs (1/17 [5.9%] vs 7/14 [50.0%], p=0.011). Although there was no significant difference in patient reported GAE/SF36 outcomes between groups, there was a significant reduction of GAE over time in both groups ($p<0.007$). There was no significant difference in renal function, or denovo viral infections between the groups. An interim analysis of the first 10 using 16S rRNA gene sequencing demonstrated significant shifts in gut microbial composition, including increased alpha diversity9 and enrichment of beneficial taxa such as Faecalibacterium prausnitzii in the treatment group. Collectively, these results suggest that HMOs are safe and significantly enrich beneficial gut microbiota but may not affect patient reported GAEs.

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SINGLE-CENTRE 5-YEAR RETROSPECTIVE ANALYSIS OF POST-TRUS PROSTATE BIOPSY INFECTIONS: A QUALITY IMPROVEMENT INITIATIVE

Cathy Wang, Stephen Pautler

Background:
Infection is the most common complication of prostate biopsy. Increasing rates of post–TRUS prostate biopsy infections have been reported, with fluoroquinolone resistance identified as a significant contributing factor. This retrospective study aimed to characterize infectious complications following TRUS prostate biopsy at St. Joseph's Hospital and to identify potential strategies to enhance the safety and quality of this procedure.

Methods:
We conducted a retrospective review of all patients who underwent TRUS prostate biopsy at St. Joseph's Hospital between January 1, 2019 and November 30, 2024. Data collected included patient demographics, biopsy details, pathology results, antibiotic prophylaxis, infection-related complications, cultured pathogens, and their antimicrobial resistance patterns.

Results:
Among the 763 patients who underwent TRUS prostate biopsy during the study period, 9 (1.2%) developed infectious complications. Of these, 7 (0.92%) had urosepsis or bacteremia, 1 had prostatitis, and 1 had an isolated urinary tract infection. *E. coli* was the only organism identified on cultures; all isolates were resistant to ciprofloxacin, and all but two were resistant to trimethoprim–sulfamethoxazole. Other complications leading to ED visits included 3 patients with retention, 2 patients with gross hematuria, 1 patient with pain, 1 patient with rectal bleeding and 1 patient with levofloxacin-induced vomiting. Eight patients required hospital admission related to biopsy complications, with a mean length of stay of 3 days. There were no ICU admissions or deaths attributable to the biopsy.

Conclusion and limitations:
The rate of post-TRUS biopsy infectious complications at St. Joseph's Hospital was lower than that reported in Ontario and other Canadian centres. However, infections consistently involved ciprofloxacin-resistant *E. coli*, suggesting potential value in reassessing our current three-dose fluoroquinolone prophylaxis regimen to optimize antimicrobial coverage while minimizing further selection for antibiotic resistance. The small number of infectious events precluded regression analysis to identify meaningful predictors of post-biopsy infection; therefore, future analyses will focus on comparing infection rates across patient subgroups.

CYSTECTOMY QUALITY REVIEW FOLLOWING IDENTIFICATION OF ELEVATED POSITIVE SURGICAL MARGIN RATES BY CANCER CARE ONTARIO: A SINGLE-CENTRE QUALITY IMPROVEMENT STUDY

Mehran Nejad Mansouri, Stephen Pautler, Nicholas E. Power, Lorraine Scanlon

Background:
Provincial quality metrics identified potentially elevated positive surgical margin (PSM) rates following radical cystectomy at our institution relative to the provincial mean. Accurate case ascertainment and detailed chart review were required to contextualize these findings and determine whether a true quality signal existed.

Aim/Objective:
To perform a structured quality improvement review of cystectomy cases included in the provincial cancer centre cohort and evaluate rates and drivers of true positive surgical margins (PSM).

Methods:
A retrospective quality review was conducted of 97 radical cystectomy patients undergoing surgery between (2021-2024) captured through the Verspeeten Cancer Centre cohort, consistent with the cases used for provincial reporting. Detailed chart review was undertaken to validate pathology, margin status (including margin location), tumour characteristics, perioperative variables, ASA, and comorbidities. True PSM was defined as invasive high-grade carcinoma at surgical margin. Descriptive and comparative analyses, chi-square testing and exploratory regression were performed using SPSS.

Results:
97 patients were included in the quality review, with 93 evaluable curative-intent cases for margin analysis. The mean age was 68.7 ± 8.0 years, and the cohort was predominantly male (73/93). The true PSM rate, defined as invasive high-grade carcinoma at the surgical margin, was 15/93 (16.1%).

There was no statistically significant difference in true PSM rates between surgeons (Pearson chi-square $p=0.221$), although surgeon-level comparisons were limited by small subgroup sizes. Exploratory regression analysis demonstrated that higher pathological T stage, variant/divergent histology, prior radiotherapy, and intra-operative concern for margin positivity were associated with increased likelihood of true PSM ($p<0.05$). Patient demographic factors, including age, sex, BMI, ASA class, and comorbidity burden, were not significantly associated with margin status.

Conclusions and Lessons Learned:
Initial elevated provincial metrics were better understood after detailed case-level review, which demonstrated that true PSM events were primarily associated with adverse disease biology rather than surgeon-specific variation. This highlights the importance of data validation and contextual clinical review when interpreting externally reported quality metrics.

Implications for Practice:
Structured chart review of cancer centre–captured cohorts provides essential context for quality metrics and supports targeted quality improvement initiatives focused on case selection, multidisciplinary planning, and management of locally advanced disease.

THE PREVALENCE OF VITAMIN D DEFICIENCY AMONG PATIENTS WITH CALCIUM OXALATE STONES AND THE CLINICAL AND METABOLIC IMPACT OF VITAMIN D SUPPLEMENTATION

Mario Basulto-Martínez, Zoya Khandwala, Tariq Alotaibi, Solon Ierides, **Abdullah Alturki,** Jennifer Bjazevic, Stan van Uum, Kristin K. Clemens, Hassan Razvi

Introduction:
Vitamin D deficiency/insufficiency is a possible risk factor among calcium oxalate (CaOx) stone formers, although its routine assessment and the role for supplementation remain controversial. This study aimed to examine the prevalence of vitamin D deficiency/insufficiency in a large Canadian cohort and to assess the impact of replacement therapy on metabolic and radiographic outcomes.

Methods:
A retrospective review of patients with CaOx stones attending a multi-disciplinary metabolic stone clinic was conducted to determine the prevalence of 25-hydroxy vitamin D (25-OH vitamin D) deficiency/insufficiency. A subset of patients receiving vitamin D supplementation was assessed longitudinally for changes in metabolic parameters and stone growth and compared to a cohort with normal values.

Results:
Among 748 patients, 64% had below normal vitamin D levels at baseline. These patients were more likely to be younger [53 (42.5-61) years vs 57 (44-67) p<0.001], have a higher body mass index (BMI) [29.3 (25.7 – 33.3) kg/m 2 vs 27.5 (24.3 – 31.9) P<0.001]and to be male [(53.6 vs 44.4%) P=0.019]. Among 83 patients receiving vitamin D with a mean follow-up of 4.8 years, none became hypercalcemic. Serial imaging demonstrated 41% had an increase in stone burden over time, which was not significantly different from those not requiring supplementation.

Conclusion:
Vitamin D deficiency/insufficiency is very common among Canadian CaOx stone formers, and should be a routine part of an in-depth metabolic work-up. Vitamin D administration can be safely recommended to deficient and insufficient stone formers without risk of inducing stone progression.

USE OF COMPUTER-BASED ASSESSMENT FOR SAMPLING PERSONAL CHARACTERISTICS (CASPer) SITUATIONAL JUDGEMENT TEST IN UNDERGRADUATE AND POST-GRADUATE MEDICAL ADMISSIONS: A SCOPING REVIEW OF THE AVAILABLE EVIDENCE

Victoria Turnbull, Hawwa Chakera, Cory Byrne, Jennifer Bjazevic

Medical admissions are classically divided into two stages: a file review stage of cognitive components including Grade Point Average and Medical College Admissions score, and an interview stage for evaluation of non-cognitive abilities. In an effort to improve inclusion, diversity and equity within admissions, Situational Judgement Tests (SJT) have been developed to bring the interview to the larger number of applicants in the first stage. In the Canadian landscape, the Computer-based Assessment for Sampling Personal Characteristics (CASPer) SJT has enjoyed widespread uptake within both undergraduate and postgraduate admissions. Recent criticism of the paucity of evidence backing use of this test formed the objective of this scoping review to collect the available literature evaluating its use. OViD Medline, EMBASE and Cochrane Central databases as well as grey literature were searched using relevant terms. Included studies evaluated the use of the CASPer SJT specifically in undergraduate and postgraduate medical admissions. Of 1057 unique studies, 18 proceeded to full-text screening and 14 studies were included. Overall, the literature would benefit from studies comparing candidate success with and without the use of CASPer, as well as additional studies using non-cognitive measures for comparison.

SEX-SPECIFIC AND OBESITY-ASSOCIATED DIFFERENCES IN STAGE AT PRESENTATION OF BLADDER CANCER: A MULTI-CENTRE ANALYSIS FROM THE CANADIAN BLADDER CANCER INFORMATION SYSTEM

Danny Matti, Lorraine Scanlon, Jonathan Izawa

Background:
Obesity has been associated with adverse oncologic outcomes in several malignancies, but its relationship with bladder cancer aggressiveness remains unclear. We evaluated the association between body mass index (BMI), sex, and pathological stage at presentation in a national multicentre bladder cancer cohort.

Methods:
We analyzed patients within the Canadian Bladder Cancer Information System (CBCIS) with available visit-specific BMI measurements and complete pathological staging data. BMI was categorized as normal, overweight, or obese and treated as an exploratory exposure due to variability in timing relative to diagnosis. Pathological stage was derived from final transurethral resection or cystectomy pathology. Primary outcomes included muscle-invasive disease (pT2+ vs <pT2), nodal involvement (N1+ vs N0), and metastatic disease at presentation (M1 vs M0). Multivariable logistic regression models adjusted for age, sex, and Charlson Comorbidity Index.

Results:
Among 1,374 patients with available BMI and pathological staging data, BMI category was not associated with pathological stage at presentation. In multivariable analyses, obesity was not independently associated with muscle-invasive disease (adjusted OR 1.02, p=0.95), nodal positivity (adjusted OR 1.24, p=0.18), or metastatic disease (adjusted OR 1.22, p=0.51). Higher comorbidity burden was associated with lower odds of advanced pathological stage. Male sex demonstrated a trend toward increased odds of metastatic disease at presentation (adjusted OR 1.69, 95% CI 0.96–2.98, p=0.068). In exploratory survival analyses, BMI was associated with improved overall survival in univariate analysis but not after adjustment for comorbidity, smoking status, and ASA class.

Conclusions:
In this national multicentre cohort, BMI was not independently associated with pathological stage or survival in bladder cancer. Sex-related differences in stage at presentation may exist, with men demonstrating a trend toward higher rates of metastatic disease at diagnosis. These findings suggest that factors other than obesity, including comorbidity burden and potentially sex-related biological or diagnostic differences, may play a larger role in determining stage at presentation.

IMMIGRATION STATUS AND PROSTATE CANCER DIAGNOSTIC PATHWAYS AND OUTCOMES IN ONTARIO, CANADA: A POPULATION-BASED COHORT STUDY

Edem (Andy) Afenu*, Mithun Kailavasan*,Lorraine Scanlon*, Andrew McClure, Brooke Carter Eric Winquist, Blayne Welk, Jonathan Izawa

Background:
Disparities in prostate cancer incidence, diagnosis, and outcomes by immigration status remain poorly characterized. The objective of this study was to examine differences in diagnostic investigations among immigrant and non-immigrant men undergoing prostate cancer evaluation in Ontario, Canada.

Methods:
We conducted a population-based cohort study of men who underwent prostate biopsy or transurethral resection of the prostate (TURP) between 2013 and 2022. Immigration status was identified using linked administrative databases. We compared baseline characteristics, diagnostic testing patterns, prostate cancer incidence and stage, and mortality by immigration status. Multivariable Cox proportional hazards models were used to evaluate factors associated with time to prostate cancer diagnosis following prostate biopsy or TURP.

Results:
The cohort included 167,553 men, of whom 20,740 (12.4%) were immigrants. Immigrant men were younger and had a lower comorbidity burden than non-immigrant men. Prostate cancer incidence was similar between immigrant and non-immigrant men (3.3% vs 3.5%, p=0.13). Immigrant men were more likely to undergo PSA testing, pelvic MRI, and repeat prostate biopsy during follow-up, although the frequency of testing was similar between groups. Five-year overall mortality (6.6% vs 14.6%) and prostate cancer–specific mortality (0.8% vs 1.6%) were significantly lower among immigrant men.

Interpretation:
Among men undergoing prostate investigation in Ontario, immigration status was not associated with prostate cancer incidence. Compared with non-immigrant men, immigrant men underwent more diagnostic evaluation and experienced lower all-cause and prostate cancer-specific mortality, likely reflecting differences in age, comorbidity burden, and primary care engagemen

WHICH MEDICATION IS MOST EFFECTIVE FOR CATHETER-ASSOCIATED BLADDER DISCOMFORT? A SYSTEMATIC REVIEW AND METANALYSIS

Erica Li, Jennifer Bjazevic

Background:
Patients with indwelling catheters after urologic and non-urologic operations often experience catheter-related bladder discomfort (CRBD). There are numerous medications available aimed to relax the bladder detrusor muscle to minimize CRBD, but it is unclear which medications are most effective, and at what time points.

Purpose:
This study determines the medications that are most effective in alleviating post-operative CRBD.

Methods:
Following PRISMA guidelines, we searched PubMed, MEDLINE, Cochrane, Embase, and Web of Science. Primary peer-reviewed studies that met inclusion criteria were included.

Results:
Solifenacin 5mg, tolterodine 2mg, or gabapentin 600mg were given in a double-blinded, placebo-controlled fashion prior to induction of anesthesia. At 0h post-op, solifenacin was associated with a greater proportion of patients with no catheter related discomfort ($p<0.05$, 80.0% solifenacin, 58.9% tolterodine, 50.0% gabapentin). However, by 2h post-op, tolterodine was associated with a significantly lower proportion of moderate CRBD ($p<0.05$, 4.9% tolterodine, 12.1% solifenacin, 12.3% gabapentin). Severe CRBD was also lower in the tolterodine and gabapentin cohorts at 1h post-op compared to solifenacin ($p<0.001$; 0% tolterodine, 14.1% solifenacin, 1.5% gabapentin). By 6h post-op, there was a significantly greater proportion of solifenacin patients with moderate CRBD ($p<0.05$, 15.7% solifenacin, 3.3% tolterodine, 5.7% gabapentin). However, by 24h post-op, there was no significant difference in the incidence of moderate or severe CRBD between the three medications, with solifenacin also demonstrating the lowest incidence of mild CRBD ($p<0.05$, 36.3% solifenacin, 76.0% tolterodine, 53.0% gabapentin).

Conclusions:
The shorter half lives of tolterodine and gabapentin may explain their greater efficacy in the immediate post-operative period, whereas solifenacin's long half life may allow for more durable symptom control within the first post-operative day.

PAST RESIDENTS' DAY GUEST PROFESSORS
1986 – 2025

2025 Dr. Chandru P. Sundaram

2024 Dr. Pramod Reddy

2023 Dr. Stacey Loeb

2022 Dr. Andrew Hung

2021 Dr. Robert Uzzo

2020 no guest professor (Covid-19)

2019 Dr. Douglas A. Husmann

2018 Dr. Bernie H. Bochner

2017 Dr. Arthur L. Burnett

2016 Dr. Philipp Dahm

2015 Dr. E. Ann Gormley

2014 Dr. Joel B. Nelson

2013 Dr. Stephen Nakada

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2010 Dr. John Michael Fitzpatrick

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2001 Dr. Shlomo Raz

2000 Dr. Donald Lamm

1999 CUA in London, no Residents' Day

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