Department of Urology Research Day
2023

Table of Contents

Keynote Speaker

Dr. Olivier Traxer

The Department of Urology is honored to host Dr. Olivier Traxer as the keynote speaker for our 30th annual Research Day. Dr. Traxer is Professor of Urology and Chairman Urology department Sorbonne University Tenon hospital (Paris-France). He is the director of the GRC#20 (Clinical Research Group #20).

Pr Traxer completed a research-fellowship at Southwestern Medical School, University of Texas-Dallas- USA (Charles Y.C PAK and Margaret Sue PEARLE) to subspecialze in Endourology and kidney stone management.

As an endo-urologist, Pr Traxer's main goal is to improve the knowledge on urinary stone disease and endourology. Pr Traxer published more than 450 peer-reviewed papers. Pr Traxer is a board member of: the EndoUrological Society, the French Association of Urology (AFU) and EAU board member of the EULIS and ESUT. He is an active member of AAGUS & AAEU. He was also the treasurer of SIU. He received in 2010 (Chicago-WCE) the Arthur Smith Award and the Ralph Clayman Mentor Award in 202. In 2022, he received the St Pauls Medal at BAUS annual meeting. He was also the president of the World Congress of EndoUrology in Paris 2018 (WCE2018) and became a member of the French Academy of Surgery in 2022.

Research Day Program: April 4

The Department of Urology is pleased to host local urologists for an evening of networking and discussion of the following topics

1. Availability of resources for upper tract LUTS management in the province of Nova Scotia
2. Development of a regional research network

6:00-6:30 pm	Meet and Greet
6:30-7:30 pm	Small group discussions of Learning Objective 1
7:30-8:30 pm	Small group discussions of Learning Objective 2
8:30-9:30 pm	Open discussion

Research Day Program: April 5

Location:
Bethune Building, B44
7:30am-1:00pm

Objectives

1. Connect with an international specialist in kidney stone disease
2. Provide an opportunity for trainees to present research projects in a formal setting
3. Discuss current management of patients with LUTS and large prostates
4. Review management of upper tract urothelial cell carcinoma

Zoom: https://us02web.zoom.us/j/85071504615?pwd=OVRXT1B6YjNCVnhpcTVCUXdJd2c5dz09
Pass code: 493068

Welcome Reception 7:30-8:00am		
Time	**Presenter's Name**	**Presentation Title**
8:00-8:10	Dr. Emily Chedrawe	Measuring the Impact of a Comprehensive Patient Empowerment Program on Relationship Satisfaction in Men Undergoing Curative Prostate Cancer Treatment
8:12-8:22	Dr. Wyatt MacNevin	PC-PEP, a comprehensive daily six-month home-based Patient Empowerment Program leads to significant weight loss in men with Prostate Cancer: A secondary analysis of a randomized clinical trial
8:24-8:34	Dr. Becky Power	An Analysis of Undergraduate Medical Education of Prostate Cancer Screening in Canada
8:36-8:46	Dr. Wyatt MacNevin	Examining the association between the extent of lymph node dissection and biochemical recurrence or castrate-resistant disease development in patients undergoing radical prostatectomy
8:48-8:58	Aurinjoy Gupta	Re-evaluating prostate cancer risk groups: misclassification rates in clinical high- and very high-risk prostate cancer in a multi-institution cohort
9:00-9:10	Dr. Charlie Gillis	Examining the impact of personality traits on psychological distress in patients undergoing a comprehensive prostate cancer patient empowerment program (PC-PEP)

Time	Presenter's Name	Presentation Title
9:12-9:22	Dr. Tarek Lawen (online)	The comprehensive 6-month Prostate Cancer-Patient Empowerment Program (PC-PEP) improves urinary function among men undergoing curative prostate cancer treatment: Secondary Analysis of a Randomized Clinical Trial
9:24-9:34	Dr. Kieran Moore	Healthcare utilization by patients with primary hyperparathyroidism – what is the effect of kidney stone formation?
9:36-9:46	Liam Power	Change in medical complexity of urological inpatients over a 13-year period
9:48-9:58	Dr. Charlie Gillis	Knowledge and Awareness of Testicular Torsion and Outcomes in Boys and Their Families
10:00-10:10	Dr. Jesse Spooner	Compliance rates for a comprehensive 6-month Prostate Cancer-Patient Empowerment Program (PC-PEP) among men undergoing curative prostate cancer treatment: A Randomized Clinical Trial
10:12-10:22	Liam Rappoldt (online)	Telehealth consultation pre-vasectomy does not impact likelihood or ability to perform in-office vasectomy
10:24-10:34	Dr. Landan MacDonald	Preoperative Factors that Predict Upstaging in Non-Muscle Invasive Bladder Cancer Patients Undergoing Radical Cystectomy: Results from a Multi-Institutional Canadian Cohort
10:36-10:46	Kaveh Masoumi-Ravandi	Ambulance service utilization by kidney transplant recipients
11:00-11:40	**Dr. Olivier Traxer (online)**	Conservative Treatment of UTUC: Tips and Tricks
11:40-11:50	Question and Answer	
11:50-12:30	**Dr. Olivier Traxer (online)**	TmFiber laser: What should we know: Personal Experience
12:30-12:40	Question and Answer	
12:40-1:00	Awards and Closing	

Abstracts

Measuring the Impact of a Comprehensive Patient Empowerment Program on Relationship Satisfaction in Men Undergoing Curative Prostate Cancer Treatment

Chedrawe ER[1], Ilie G[1,2,3], Rendon R[1], Mason R[1], MacDonald C[3], Kucharczyk MJ[2], Patil N[2], Bowes D[2], Bailly G[1], Bell D[1], Lawen J[1], Ha M[2], Wilke D[2], Massaro P[1], Zahavich J[4], Kephart G[3], Rutledge RDH[2]

1. Department of Urology, Dalhousie University, 2. Department of Radiation Oncology, Dalhousie University, 3. Department of Community Health & Epidemiology, Dalhousie University, 4. School of Health & Human Performance, Dalhousie University

Purpose:
The aim of this study was to examine the effects of a 6-month online home-based physical, mental and social support intervention, the Prostate Cancer Patient Empowerment Program (PC-PEP), on relationship satisfaction.

Materials and Methods:
A crossover randomized clinical trial of men aged 50-82 yr scheduled for curative prostate cancer surgery or radiotherapy (+/- hormone treatment) randomized to receive the 6-month PC-PEP intervention or the standard of care. Men's perception of their relationships was measured using the Dyadic Adjustment Scale (DAS), a 32-item questionnaire using a Likert Scale. Scores greater or equal to 107 represent overall relationship satisfaction. We performed logistic regression comparing treatment to standard of care, controlling for prognostic covariates, and t-test for comparing individual domains.

Results:
In total 120/128 participants were in long term relationships, and 5 were excluded for incomplete data. There was no significant difference in relationship satisfaction between the treatment and the control groups (OR 1.19, 95% CI 0.149-9.49) at 6 months from treatment randomization. Taking medication for anxiety and/or depression was a statistically significant predictor of relationship satisfaction ($p = 0.049$). Paired difference in scores for each of the four relationship satisfaction domains comparing baseline to 6 mo follow up showed men undergoing surgery who received standard of care experienced significant decrease in their perceived degree of emotional affection from their partner (mean difference 0.62 ± 2.07, $p = 0.05$). No other statistically significant differences emerged.

Conclusions:
Prior research clearly demonstrates that men's mental health declines with diagnosis and treatment of prostate cancer and that PC-PEP can help reduce mental distress if provided as soon as possible after diagnosis. Here we show that PC-PEP is also a protective factor against, relationship dissatisfaction, although to a lesser degree. Men taking medications for anxiety and/or depression appears to be a protective factor for relationship satisfaction.

PC-PEP, a comprehensive daily six-month home-based Patient Empowerment Program leads to significant weight loss in men with Prostate Cancer: A secondary analysis of a randomized clinical trial

MacNevin W[1], Ilie G[1,2,3], Mason R[1], Rendon R[1], MacDonald C[3], Kucharczyk MJ[2], Patil N[2], Bowes D[2], Bailly G[1], Bell D[1], Wilke [2], Massaro P[1], Zahavich J[4], Rutledge RDH[2]

1. Department of Urology, Dalhousie University, 2. Department of Radiation Oncology, Dalhousie University, 3. Department of Community Health & Epidemiology, Dalhousie University, 4. School of Health & Human Performance, Dalhousie University

Purpose:
The Prostate Cancer-Patient Empowerment Program (PC-PEP), a daily 6-month home-based physical, mental, and social-support intervention has been shown to improve mental health and urinary function among men with PC. This study aimed to explore weight loss in men participating in PC-PEP based on intervention timing.

Materials and Methods:
In a randomized clinical trial of 128 men scheduled for curative PC surgery or radiotherapy (± hormone treatment), 66 men received 'early' 6 months PC-PEP intervention, and 62 were randomized to the 'late' waitlist-control arm following 6 months of the standard-of-care, and then 6 months PC-PEP. The PC-PEP intervention consisted of daily video-based education, patient empowerment, dietary recommendations, physical fitness, and social support.
The physical fitness component prescribed strength exercises for 30-minutes two days per week and aerobic exercise daily for 30 minutes for the rest of the week. We examine the effects of the intervention on weight loss at 6 months and compare the early versus late effects of the intervention on weight loss.

Results:
Overall compliance was high with time allotment and intensity of the physical fitness components. At 6 months, patients assigned to the PC-PEP had statistically significant lower weight from baseline (Mean=86 kg; SE=1.9) compared to the waitlist-control group (Mean=88 kg; SE=1.9), $p < 0.001$. At 12 months, no statistically significant differences were observed showing PC-PEP is equally effective provided at diagnosis or 6 months after scheduled treatment.

Conclusions:
PC-PEP delivered early or late following diagnosis resulted in significant weight loss in men undergoing curative prostate cancer treatment compared to standard of care.

An Analysis of Undergraduate Medical Education of Prostate Cancer Screening in Canada

Power RJ[1], Mason R[1], Johnson P[2], Domes T[3], BlanksteinNU[4], Huynh M[5], De Lima S[6], MacLellan D[1*]

1. Department of Urology, Dalhousie University, Halifax, NS, 2. Department of Urology, Discipline of Surgery, Memorial University of Newfoundland, St. John's, NL, 3. Division of Urology, University of Saskatchewan, Saskatoon, SK, 4. Department of Urology, McMaster University, Hamilton, ON, 5. Division of Urology, Western University, London, ON, 5. Faculty of Medicine, University of Calgary, Calgary, AB

Introduction:
Prostate cancer (PCa) screening is taught in various components of the undergraduate medical education (UGME) curriculum (didactic lectures, clinical skills, professional competencies, and clerkship) and by various departments (urology, family medicine and ethics). In 2014 the Canadian Task Force on Preventative Health Care published PCa screening guidelines. Since this time, much new evidence has been published about the topic of PCa screening. The objective of this study is to evaluate Canadian undergraduate medical students' knowledge and attitudes towards PCa screening.

Materials and Methods:
The Canadian Undergraduate Urology Curriculum (CanUCC) committee developed a survey for undergraduate medical students. This survey will estimate: the quantity of the curriculum devoted to PCa screening, attitudes of the students towards PCa screening, and which PCa guidelines they would reference.

Results:
This survey will be designed in REDCap and disturbed to medical students at all 17 Canadian medical schools. Perspectives of medical students towards PCa screening will be determined. Data will then be subdivided based on undergraduate medical school and year of training. Descriptive analysis and multivariant analysis will be performed in R.

Conclusions:
Medical students represent the future of Canadian medical practice, it is important to determine their attitudes and knowledge surrounding PCa screening. This survey of Canadian undergraduate medical students will elucidate the knowledge of and attitudes towards PCa screening among Canadian UGME curricula.

Examining the association between the extent of lymph node dissection and biochemical recurrence or castrate-resistant disease development in patients undergoing radical prostatectomy.

MacNevin W[1], Rendon R[1], Breau R[2], Izawa J[3], Saad F[4], So A[5], Shayegan[6], Mason R[1]

1. Department of Urology, Dalhousie University, 2. Department of Surgery, University of Ottawa, 3. Departments of Surgery & Oncology, Divisions of Urology & Surgical Oncology, London Health Sciences Centre-Victoria Hospital, London ON, 4. Centre Hospitalier de l'Université de Montréal–Centre de Recherche du Centre Hospitalier de l'Université de Montréal, Montreal, 5. Department of Urologic Sciences, University of British Columbia, Vancouver, BC, Canada, 6. Division of Urology, Department of Surgery, McMaster University, Hamilton, ON, Canada

Purpose:
The utility of extended lymph node dissection (LND) during radical prostatectomy (RP) on biochemical recurrence (BCR) and the development of castrate-resistant prostate cancer (CRPC) remains controversial. This study examines the association between LND approach and BCR and development of CRPC in a Canadian multi-institutional cohort.

Materials and Methods:
This is a retrospective study including 601 patients from a Canadian national PC database who underwent RP from January 2005 – December 2016. Descriptive statistics, patient/surgical factors, and LND approach were compared with BCR and CRPC using correlation and regression analysis.

Results:
The median (IQR) follow-up was 1219.5 (1477.8) days with a time from RP to BCR and CRPC of 297 (750) and 1584 (1088) days. Extended LND was associated with increased intra-operative blood loss ($\rho = 0.252$, $p < 0.001$), and had mild associations with increased positive LN yield ($\rho = 0.125$, $p = 0.002$), and higher post-operative complication rate ($\rho = 0.110$, $p = 0.007$). There were no differences in BCR based on LND approach with 33.2% of standard LND cases (n = 123/371) and 28.9% (n = 24/83) of extended LND cases progressing to BCR ($p = 0.28$). Similarly, there were no differences in progression to CRPC based on LND type (standard – 9.09% (n = 21/231) vs extended – 10.9% (n = 5/46), $p = 0.32$).

Conclusions:
Standard vs extended LND did not show significant differences in the rates of progression to BCR or CRPC in patients undergoing RP. This study adds to the data exploring the association between LND and early oncological outcomes in PC.

Re-evaluating prostate cancer risk groups: misclassification rates in clinical high- and very high-risk prostate cancer in a multi-institution cohort

Gupta A[1], Mustafa S[2], Breau R[3], Izawa J[4], Mason R[2], Saad R[5], Shayegan B[6], So A[7], Rendon RA[2]

[1]Northern Ontario School of Medicine, Thunder Bay, Ontario, Canada; [2]Department of Urology, Dalhousie University, Halifax, Nova Scotia, Canada; [3]Division of Urology, University of Ottawa, Ottawa, Ontario, Canada; [4]Division of Urology, Western University, London, Ontario, Canada; [5]Division of Urology, Université de Montréal, Montreal, Québec, Canada; [6]Division of Urology, McMaster University, Hamilton, Ontario, Canada; [7]Department of Urologic Sciences, University of British Columbia, Vancouver, British Columbia, Canada

Purpose:

Patients with clinical high-/very high-risk prostate cancer (HRPC/VHRPC) have variable outcomes after radical prostatectomy (RP). Clinical risk group may be overestimated in some patients, with tumour pathology showing a lower risk group than identified at biopsy. We predicted pathologic risk reclassification in a multi-institution cohort and compared disease outcomes between patients with correctly classified versus misclassified tumours.

Materials and Methods:

Clinical HRPC/VHRPC patients who underwent RP at Canadian academic centers were pooled into one cohort. Intermediate-risk (IRPC) and lower pathologic risk group patients were identified and compared to those whose pathologic risk group remained high-/very high-risk. Logistic regression was used to predict tumour misclassification. Kaplan-Meier curves were used to compare long-term outcomes. Primary endpoints were risk group misclassification, biochemical recurrence (BCR), castrate-resistant disease (CRPC), and metastatic progression.

Results:

Of 598 clinical HRPC/VHRPC patients, 99 were found to have pathologic IRPC despite initial stratification as clinical HRPC/VHRPC. No patients were downgraded to low risk. Rates of positive surgical margins, lymph node disease, postoperative detectable PSA, and adjuvant/salvage therapies were lower in downgraded patients (Table 1). Higher rates of freedom from BCR and distant metastasis were seen in patients downgraded in risk (Table 1 and Figure 1). Pathologic downgrading of tumour risk group was predicted by fewer positive biopsy cores, lower malignant tissue proportion on biopsy, grade group < 5, and preoperative PSA < 10 ng/mL (Figure 2).

Conclusions:

Risk group may be overestimated in some patients with clinical HRPC/VHRPC. These patients have better postoperative outcomes, and may be identified preoperatively.

Examining the impact of personality traits on psychological distress in patients undergoing a comprehensive prostate cancer patient empowerment program (PC-PEP)

Gillis C[1], Rutledge R[2], Rendon R[1], Mason R[1], MacDonald C[3], Mike J Kucharczyk M[2], Patil N[2], Bowes D[2], Bailly G[1], Bell D[1], Lawen J[1], Ha M[2], Wilke D[2], Massaro P[1], Zahavich J[4], Kephart G[3], Gabriela Ilie[1,2,3]

1. Department of Urology, Dalhousie University, 2. Department of Radiation Oncology, Dalhousie University, 3. Department of Community Health & Epidemiology, Dalhousie University, 4. School of Health & Human Performance, Dalhousie University

Purpose:
This study investigates the relationship between personality traits and psychological distress for localized prostate cancer patients undergoing a standardized home physical, mental, and social support intervention, the Prostate Cancer-Patient Empowerment Program (PC-PEP).

Materials and Methods:
Patients diagnosed with localized prostate cancer (*n* = 128) undergoing treatment with either radiotherapy±ADT or surgery were randomized in a crossover design to receive a six-month, online, home-based physical, mental and social support intervention. For the first 6 months, 66 men were randomized to receive the PC-PEP intervention, while 62 men were randomized to a control arm receiving the standard of care. The primary outcome was nonspecific psychological distress as measured by the Kessler Psychological Distress Scale (K10) at baseline, 6, and 12 months. Clinical, demographic, and social variables were collected. Personality was assessed using the ten-item personality inventory (TIPI) to assess extraversion, agreeableness, conscientiousness, emotional stability, and openness to experiences.

Results:
At baseline, a linear regression model established personality traits (low agreeableness OR=0.30, 95%CI=0.59-1.5; and neuroticism OR=0.28, 95%CI=0.15-0.54) predicted psychologic distress. At 6 months, a logistic regression model demonstrated patients in the waitlist-control group had 3.59 (95% CI:1.12-11.51) times higher odds (or ORa=4.31, 95%CI:1.23-15.08 controlling for personality traits) for nonspecific psychological distress (K ≥ 20) than men who received the PC-PEP intervention, while controlling for prognostic covariates and personality traits.

Conclusion:
A multifactorial, standardized Patient Empowerment Program significantly reduced the risk of psychological distress throughout prostate cancer treatment. Despite affecting the level of psychologic distress in men facing a diagnosis of prostate cancer, personality traits are not found to be associated with psychologic distress throughout the treatment of this disease.

The comprehensive 6-month Prostate Cancer-Patient Empowerment Program (PC-PEP) improves urinary function among men undergoing curative prostate cancer treatment: Secondary Analysis of a Randomized Clinical Trial

Lawen T[1], Ilie G[2], Mason R[1], Rendon R[1], MacDonald C[2], Kucharczyk M[3], Patil N[3], Bowes D[3], Bailly G[1], Bell D[1], Lawen J[1], Wilke D[3], Massaro P1, Zahavich J[4], Rutledge R[3].

1. Department of Urology, Dalhousie University, 2. Department of Community Health & Epidemiology, Dalhousie University, 3. Department of Radiation Oncology, Dalhousie University, 4. School of Health & Human Performance, Dalhousie University

Purpose:
To examine the effects of the Prostate Cancer-Patient Empowerment Program (PC-PEP) on patient-reported urinary, bowel, sexual and hormonal function among men scheduled for curative prostate cancer (PC) treatment.

Methods:
128 men scheduled for PC surgery (n=62) or radiotherapy +/- hormones (n=66) were randomized to PC-PEP (n=66) or standard of care (n=62). PC-PEP comprises regular strength training, dietary advice, meditation and pelvic floor muscle training (PFMT). Over six months, men followed the program's PFMT videos three times per day. Videos included relaxation, quick-twitch and endurance exercises. Men in the PC-PEP arm completed weekly online compliance surveys. All participants completed the International Prostate Symptom Score (IPSS) and Expanded Prostate Cancer Index Composite (EPIC) questionnaires at baseline and six months.

Results:
The PC-PEP and control groups were similar in age, cancer stage and baseline IPSS and EPIC scores (Table 1). On average, the PC-PEP group reported performing PFMT 21 minutes per day (Table 2). At six months, the PC-PEP group had improved IPSS when compared to controls ($p=0.059$ on multivariate analysis). The IPSS bother score was significantly improved in the PC-PEP group vs. control ($p=0.004$). The EPIC Urinary Incontinence ($p<0.001$) and Irritative/Obstructive ($p=0.008$) scores favoured the PC-PEP group. EPIC Bowel ($p=.32$), Sexual ($p=.36$), and Hormone Function ($p=0.6$) showed no difference between the groups (Table 3 & Figure 1).

Conclusion:
PC-PEP appears to significantly improve lower urinary tract symptoms in men scheduled for curative PC treatment. These findings add to our previous results showing that PC-PEP significantly improves patient mental health.

Healthcare utilization by patients with primary hyperparathyroidism – what is the effect of kidney stone formation?

Moore KJ[1], White J[1], Matheson K[2], Tennankore K[3], Rigby M[4], Kaiser S[5], Lantz Powers A[1].

1. Department of Urology, Dalhousie University, 2. Research Methods Unit, Nova Scotia Health Authority, 3. Department of Medicine, Division of Nephrology, Dalhousie University, Halifax, Nova Scotia, 4. Division of Otolaryngology-Head & Neck Surgery, Dalhousie University, 5. Department of Medicine, Dalhousie University

Purpose:
Urolithiasis is a common complication of primary hyperparathyroidism (PHPT). Parathyroidectomy has been shown to decrease the rate of recurrent stone formation. This study evaluated healthcare resource utilization before and after parathyroidectomy for patients with PHPT.

Materials and Methods:
We analyzed a retrospective cohort of patients who had a parathyroidectomy for PHPT in Nova Scotia from 2013-2018. Data from five years before parathyroidectomy to three years after were included. Outcomes included emergency department (ED) visits and the total number of urologic interventions. Outcomes were reported using incidence rate ratios (IRR) with 95% confidence intervals (CI). Univariate and multivariate models were performed.

Results:
48 patients, (62% female) with a mean age of 60 ±11 years were identified. ED visits were 0.42 per year prior to parathyroidectomy and 0.20 per year after surgery in a multivariate analysis adjusting for sex and diabetes, IRR 0.48 (CI 0.25 – 0.91, p=0.024). There was no statistical difference between male and female ED visits (p=0.6719), or the rate of ED visits for non-urologic reasons after parathyroidectomy (p=0.0749). The incidence of urologic intervention for stones was 1.24 per year prior to parathyroidectomy and 0.53 per year after, IRR 0.42 (CI 0.26 – 0.68, p=0.0005).

Conclusions:
Healthcare resource utilization, in terms of ED visits and urologic intervention, significantly decreased in patients with PHPT after parathyroidectomy. Sex showed no statistical difference in predicting health care utilization, while non-urologic ED visits remained the same after surgery. Expedited parathyroidectomy for patients with PHPT may decrease urologic interventions and ED visits, resulting in a decrease in health care utilization.

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

Power L[1], Masoumi-Ravandi K[1], Mason R[2], Lantz Powers A[2], Skinner T[2], Bailly G[2], Cox A[2]

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

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

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

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

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

Knowledge and Awareness of Testicular Torsion and Outcomes in Boys and Their Families

Gillis C[1], Romao R[1,2], MacNeil E[1,2], Richards K[1,2], MacLellan D[1], Keefe D[1]

1. Department of Urology, Dalhousie University, 2. Department of Surgery, Dalhousie University, IWK Health Centre, Halifax, Nova Scotia, Canada

Purpose:
Delays in diagnosis and management of testicular torsion (TT) can result in higher rates of orchiectomy and atrophy. In order to identify barriers to the TT treatment pathway, this study examined patient and parental knowledge of the topic, as well as capturing the impact on time delays and testicular salvage.

Materials and Methods:
This study prospectively identified 12 patients presenting to the ER with acute scrotal pain from August 2022 – March 2023 at a single institution. A separate cohort of 10 patients who presented to shared multidisciplinary clinics and did not have a scrotal condition were included as a control group. Both groups completed a survey to evaluate their knowledge of TT and sources of health information. Clinical data was recorded from those patients who presented to the ER, as well as perioperative data and surgical outcome from those who underwent surgical exploration.

Results:
Of 12 patients participating in the study, 2 ultimately were diagnosed with TT and underwent scrotal exploration, with 1/2 resulting in orchiectomy. 4.5% (1/22) of patients had heard of TT in the past, while 18.2% (4/22) of parents had heard of the condition from a medical professional or through their own medical background. The most common source of health information for both parents and patients was their general practitioner or the internet. The most common reason identified in seeking treatment was that patients were worried that they were having testicular torsion or that it represented an infection (25%, 3/12). When first experiencing the pain, 25% (3/12) thought the pain would improve on its own, and another 25% (3/12) felt embarrassed and wanted to keep the pain private.

Conclusions:
Public awareness of testicular torsion is lacking and may be a barrier for testicular salvage.

Compliance rates for a comprehensive 6-month Prostate Cancer-Patient Empowerment Program (PC-PEP) among men undergoing curative prostate cancer treatment: A Randomized Clinical Trial

Spooner J[1], Ilie G[1,2,3], Rendon F[1], Mason R[1], MacDonald C[2], Kucharczyk M[3], Patil N[3], Bowes D[3], Bailly G[1], Bell D[1], Lawen J[1], Ha M[3], Wilke D[3], Massaro P[3], Zahavich J[4], Kephart G[2], RDH Rutledge[3]

[1] Department of Urology, Halifax, Nova Scotia, Canada, [2] Department of Community Health and Epidemiology, Dalhousie University, Halifax, Nova Scotia, Canada, [3] Department of Radiation Oncology, Dalhousie University, Halifax, Nova Scotia, Canada, [4] Department of Kinesiology, Dalhousie University, Halifax, Nova Scotia, Canada

Purpose:
An assessment of individual program domain compliance for patients enrolled in the Prostate Cancer-Patient Empowerment Program (PC-PEP): A Randomized Clinical Trial.

Materials and Methods:
This study was a randomized clinical trial of 128 men aged 50–82 years scheduled for curative prostate cancer surgery or radiotherapy (± hormone treatment). 66 men received the PC-PEP intervention ("Early group"), and 62 were randomized to a waitlist control arm and received the standard of care for 6 months ("Late group"). Men in the PC-PEP intervention received daily emails with video instructions for six months providing education and promoting physical and mental health, social activities, including physical and pelvic floor exercises, stress reduction using a biofeedback device, dietary and intimacy education, and social support. Weekly compliance was analyzed with a weekly self-report online survey. We recorded the number of days (for strength, aerobic Kegels, intimacy and connection, stress reduction, dietary, and "PEP-buddy" contact), minutes per day (for the strength, aerobic, Kegels and stress reduction components) and engagement intensity (strength and aerobic activities). Linear mixed models and multinominal logistic regression (for non-convergent cases) assessed group (early vs. late intervention) by time (weekly compliance over 26 weeks) interactions.

Results:
Compliance scores for the early vs late PC-PEP groups were statistically equivalent over the 26 weeks of the program. In addition, the 'early' intervention group (M=229.79 minutes/week) and the control group (M=217.31 minutes/week) far exceeded the weekly recommendations of 90-150 minutes of aerobic exercise per week. Overall results show that men were compliant with the intervention recommendations throughout the 26 weeks and even exceeded some components of the program.

Conclusion:
Results we report here help explain mental and physical health benefits reported in this sample and support the suggestion that multifaceted interventions may be a better fit for prostate cancer short and long terms pre-and post-habilitation survivorship needs.

Telehealth consultation pre-vasectomy does not impact likelihood or ability to perform in-office vasectomy

Rappoldt L[1], White J[2], Ory J[1], Ramasamy R[2]

1. Dalhousie University, Department of Urology, Halifax, NS, 2. University of Miami, Miller School of Medicine. Miami, FL

Purpose:
We sought to evaluate the likelihood of patients following through with vasectomies with an initial telehealth consultation compared with in-office assessment.

Materials and Methods:
We utilized electronic medical records to determine the number of male patients that underwent a sterilization consult at our center in the past 5 years. Patients were then stratified by whether an in-office consultation or telehealth consultation was performed prior to vasectomy. Patients were stratified if the vasectomy was performed in-office or in the operating room. In-office failures who then required OR vasectomies were tallied. Percentages of patients who subsequently underwent vasectomy were compared using Chi-square test.

Results:
A total of 2127 patients were reviewed with a final analytic sample of 2000 patients after exclusion criteria. There were 338 patients who underwent a telehealth male sterilization consultation and 1662 patients who were seen in office, 59.7% of patients who were seen via telehealth consultation ultimately underwent vasectomy (n=202) and 62.1% of patients who were seen via in office assessment ultimately underwent vasectomy (n=1032). On Chi-square analysis, there was no difference in the likelihood of undergoing vasectomy between patients who received their sterilization consult via telehealth or in-office assessment (X^2= 0.646, p= 0.724).

Conclusion:
There does not appear to be a difference in terms of “no-shows” for vasectomy comparing those who received an in-office pre-vasectomy assessment compared with those who were seen via telehealth.

Preoperative Factors that Predict Upstaging in Non-Muscle Invasive Bladder Cancer Patients Undergoing Radical Cystectomy: Results from a Multi-Institutional Canadian Cohort

MacDonald L[1], Kassouf W[2], Breau RH[3], Fairey A[4], Ramanakumar AV[5], Tayzler C[6], Drachenberg D[7], Izawa J[8], Shayegan B[8], Lattouf JB[9], Lodde M[10], Siemens R[11, 12], Jeldres C[13], Black PC[14], Kulkarni GS[15], Chung P[15], Alimohamed N[16, 17], Hyndman E[18], Rendon RA[1]

1. Department of Urology, Dalhousie University, 2. Department of Urology, McGill University Montreal, QC, 3. Department of Surgery, University of Ottawa, 4. Department of Urology, University of Alberta, 5. Centre for Outcomes Research and Evaluation, Research Institute of the McGill University Health Centre, Montreal, QC, 6. Division of Urology, McMaster Institute of Urology, Hamilton, ON, 7. Division of Urology, The Prostate Centre, Vancouver General Hospital, BC 8. Departments of Surgery & Oncology, Divisions of Urology & Surgical Oncology, London Health Sciences Centre-Victoria Hospital, London ON, 8. Division of Urology, Department of Surgery, McMaster University, Hamilton, ON, 9. Department of Oncology, Maastricht University Medical Center, Maastricht, the Netherlands, 10. Department of Urology, Central Hospital of Bolzano, Bolzano, Italy, 11. Department of Biomedical and Molecular Sciences, Queen's University, Kingston ON, 12. Department of Urology, Queen's University, Kingston, ON, 13. Cancer Prognostics and Health Outcomes Unit, University of Montreal Health Center, Montreal, 14. Vancouver Prostate Centre, University of British Columbia, Vancouver BC, 15. University Health Network, Princess Margaret Cancer Centre, University of Toronto, Toronto, ON, 16. Princess Margaret Cancer Center, Division of Medical Oncology, Toronto, ON, 17. Department of Medical Oncology, Tom Baker Cancer Center, Calgary, AB, 18. Division of Urology, University of Calgary, Calgary, AB

Purpose:

Outcomes associated with managing non-muscle invasive bladder cancer (NMIBC) can be heterogeneous. Pathologic upstaging in the radical cystectomy (RC) specimen is identified in 30-50% of patients with clinical NMIBC. Our objective was to determine the predictive factors for upstaging among patients with clinical stage Ta or T1 tumors treated with cystectomy.

Materials and Methods:

Using the Canadian Bladder Cancer Information System (CBCIS), we selected 341 patients with clinical stage <cT2N0M0 who underwent RC. This prospective database includes 7152 patients collected since 2015 from 14 Canadian centers in 6 provinces. Detailed information regarding the clinical stage, timelines, and results of RC was provided. Using descriptive and multivariable logistic regression, we determined the factors associated with upstaging to muscle-invasive bladder cancer. Candidate variables included previous treatments, time from diagnosis to RC, histopathological features of the transurethrally resected bladder tumor (TURBT), and other patient characteristics.

Results:

Upstaging at the time of RC was observed in 139 patients (41%). Of those who were upstaged, 62 (44.6%), 54 (38.9%), and 23 (16.6%) were found to have pT2, pT3, and pT4, respectively. Those who were upstaged had significantly higher rates in the TURBT specimen of concomitant CIS, lymphovascular invasion (LVI), and T1 tumor. Variant histology was associated with an increased risk of upstaging. The number of tumors was not different between groups; however, the upstaged group had significantly larger tumors. Soft-tissue positive margin rates on final pathology were substantially higher for the upstaged group. Post-RC complications were similar between groups (p=0.48) and reflected values seen in the literature.

Conclusions:

Using a contemporary cohort, we found that 41% of patients who underwent timely RC were upstaged on final pathology. Tumor factors that may predict upstaging include CIS, LVI, tumor size, cT1, and variant histology.

This project has been supported by the Canadian Bladder Cancer Information System Collaborative (CBCIS) and Bladder Cancer Canada. CBCIS has received unrestricted grants or in-kind support from Bladder Cancer Canada, Merck, Roche, Astra Zeneca, Pfizer/EMD Serono, Seagen, and Bristol-Myers Squibb. There is no direct role or influence this funding on this work.

Ambulance service utilization by kidney transplant recipients

Masoumi-Ravandi M[1], Vinson A[2], Thanamayooran A[2], Goldstein J[3], Skinner T[1], Tennankore K[2]

1. Department of Urology, Dalhousie University, 2. Department of Medicine, Division of Nephrology, 3. Division of Geriatric Medicine, Geriatric Medicine Research Unit, Dalhousie University,

Purpose:
Compared with the general population, kidney transplant recipients (KTRs) frequently utilize the emergency department (ED). Much less is known about the frequency and predictors of ambulance utilization for ED transfer (characteristic of a more severe health state) among KTRs. The objective of this study was to identify predictors of ambulance transport to the ED (ambulance-ED) for a regional cohort of KTRs.

Materials and Methods:
We analyzed a retrospective cohort of incident, adult (≥18 years), Nova Scotian KTRs who received a transplant from 2008-2020. We used the Atlantic Canada Multi-Organ Transplant database to link recipients to the Emergency Health Services database to capture all ambulance-ED events. Ambulance-ED was defined as ambulance transport to the ED following a 911 call; interfacility transfers were excluded. Patients were followed until death, graft failure, loss to follow-up, or until the last date of study (1 Jan 2021). Adjusted negative binomial regression modelling was used to analyze kidney donor and recipient characteristics as potential predictors of ambulance-ED and associations were reported using incidence rate ratios (IRRs) with 95% confidence intervals (CIs).

Results:
Of the 451 patients who received a transplant during the study period, 180 (39.9%) experienced one or more ambulance-ED events. Female recipients were more than twice as likely to experience ambulance-ED compared with male recipients (IRR 2.40 95% CI 1.42-4.06). Those with diabetes were more than five times as likely to require ambulance-ED (IRR 5.49, 95% CI 3.31-9.10). Prior malignancy was found to be protective (IRR 0.68 95% CI 0.50-0.94).

Conclusions:
In this study, we found that female sex, increased age at time of transplant and presence of diabetes were associated with ambulance-ED while malignancy was surprisingly associated with lower risk of ambulance-ED. These predictive factors highlight the burden of ambulance use on KTRs and may give insight into the need for more optimal follow-up in certain patient subgroups.

Evaluation

Your feedback on today's event is important and is required for CPDME accreditation.

Please scan the following QR code to provide your feedback for the Department of Urology Research Day 2023.

Thank you!

Accreditation

As an accredited provider, Dalhousie University Continuing Professional Development and Medical Education, designates this continuing professional development activity (Department of Urology Research Day April 4-5, 2023) for up to

7.0 credit hours

as an accredited group learning Section 1 activity as defined by the Maintenance of Certification Program of the Royal College of Physicians and Surgeons of Canada.

Please note the following breakdown of credit hours:

Up to 3.0 credits for attending the dinner on April 4th
Up to 4.0 credits for attending presentations on April 5th

Through an agreement between the Royal College of Physicians and Surgeons of Canada and the American Medical Association, physicians may convert Royal College MOC credits to AMA PRA Category 1 credits™. Information on the process to convert Royal College MOC credit to AMA credit can be found at https://edhub.ama-assn.org/pages/applications.

In keeping with CMA guidelines, program content and selection of speakers are the responsibility of the planning committee. Support is directed toward the costs of the course and not to individual speakers.

Please complete the required attendance form(s). You will not be eligible for CPDME credit if your name is not on the attendance forms.

Sponsors

Educationally approved/co-sponsored by the Dalhousie University Continuing Professional Development and Medical Education

DALHOUSIE UNIVERSITY

CONTINUING PROFESSIONAL DEVELOPMENT & MEDICAL EDUCATION

This program is supported by an educational grant from the following sponsors

tolmar

janssen | PHARMACEUTICAL COMPANIES OF Johnson & Johnson

McKESSON

BAYER

abbvie

Knight

TerSera Canada

FERRING PHARMACEUTICALS