## Urodynamics/Lower Urinary Tract Dysfunction/Female Pelvic Medicine: Male Incontinence: Therapy II

## Podium 37

**Saturday, May 16, 2020** **3:30 PM-5:30 PM**

### PD37-01
### TREATMENT OF NOCTURIA: WHAT REALLY WORKS?

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INTRODUCTION AND OBJECTIVE: This study aims to assess the efficacy of behavioral modification alone vs. combined behavioral modification with traditional first-line pharmacologic treatments in reducing nocturnal voiding frequency among men with nocturia.

METHODS: Retrospective analysis of voiding diaries completed by patients treated for lower urinary tract symptoms (LUTS) at a Veterans Affairs urology clinic was performed. Diaries were abstracted for 24-h total volume, nocturnal urine volume (NUV), and actual number of nocturnal voids (ANV). Patients were included if they were male, $\geq$18 years, had $\geq$1 nocturnal void(s) on baseline diary, and a follow-up diary within 365 days of baseline. Patients were deemed to have experienced improvement if ANV decreased by $\geq$1 voids(s) from baseline to follow-up.

RESULTS: 321 voiding diaries (176 diary pairs) were analyzed from 98 unique patients who met the inclusion criteria. Mean duration from baseline to follow-up was 181 days. Improvement was observed in 67 diary pairs (mean improvement -1.76 [$\pm$1.07] voids); no change was observed in 44 diary pairs, and 65 demonstrated an increase in ANV ($+$1.86 [$\pm$1.91] voids). Among those who improved, baseline ANV was significantly greater (3.5 vs. 2.1 voids, $p<0.001$), and baseline post-void residual (PVR) volume was lower (45.7 vs. 89.3, $p=0.03$). No other differences were observed in standard diary parameters. Improvement in ANV was accompanied by a significant decrease in 24-h volume (-344 mL, $p=0.01$), NUV (-262 mL, $p<0.001$), and an increase in first uninterrupted sleep period (FUSP) duration ($+$1.92 hours, $p<0.001$). Patients prescribed behavioral modification $+$ 1 or more pharmacologic agent were no more likely to improve than patients prescribed lifestyle modification alone. Irrespective of pharmacotherapy status, improvement was accompanied by significant decreases in ANV, total 24-h voids voids, nocturnal bladder capacity index (NBCi), and nocturia index (Ni), as well as increased FUSP (Table).

CONCLUSIONS: In this study, no significant difference was observed in nocturia severity between patients treated with behavioral modification alone vs. combined behavioral modification $+$ pharmacologic agent(s). Alternative pharmacologic options may be needed to expand the urologist's toolkit beyond an initial individualized lifestyle modification plan in the management of nocturia.

**Table.** Diary changes in improved patients.

| Difference in Diary Characteristic | Lifestyle Modification Alone (n=45) | | Drug Treatment* + Lifestyle Modification (n=16†) | | Effect difference p-value |
|---|---|---|---|---|---|
| | Mean (SD) | p-value | Mean (SD) | p-value | |
| ANV | -1.71 (0.99) | <0.0001 | -1.69 (1.08) | <0.01 | NS |
| 24-hour urine vol | -286 (546) | 0.04 | -470 (1094) | NS | NS |
| # of voids/24 hours | -1.32 (2.17) | 0.04 | -2.81 (2.32) | 0.02 | 0.02 |
| Hours of sleep | -0.517 (3.27) | NS | -0.377 (1.48) | NS | NS |
| NUV | -280 (393) | <0.001 | -232 (259) | 0.05 | NS |
| MVV | -17.1 (91.6) | NS | -20.0 (70.1) | NS | NS |
| NMVV | -61.3 (145) | 0.02 | -36.9 (127) | NS | NS |
| Ni | -0.809 (1.13) | <0.01 | -0.896 (0.765) | 0.01 | NS |
| NPi | -0.084 (0.18) | 0.04 | -0.095 (0.15) | NS | NS |
| NUP | -32.3 (55.3) | <0.001 | -26.1 (36.5) | NS | NS |
| NBCi | -0.915 (1.11) | <0.001 | -0.792 (1.07) | 0.01 | NS |
| FUSP | +2.21 (2.79) | <0.001 | +1.52 (1.76) | NS | NS |
| Vol of 1st noc void | +0.155 (99.7) | NS | +52.7 (80.8) | NS | NS |

**Drugs including tamsulosin, oxybutynin, finasteride, terazosin, and mirabegron. Patients prescribed other drugs are not included in either group. Abbreviations: SD is standard deviation. ANV is the number of Actual Nocturnal Voids. Hrs is hours. Vol is volume in mL. NUV is nocturnal urine volume in mL. MVV is Maximum Voided Volume in mL. NMVV is Nocturnal Maximal Voided Volume in mL. Ni is Nocturia Index=NUV/MVV. NPi is Nocturnal Polyuria Index=NUV/24 hour urine vol. NBCi is Nocturnal Bladder Control index=ANV-(Ni-1). FUSP is First Uninterrupted Sleep Period in hours. Noc is nocturnal. NS is non-significant (p≥0.05).*

**Source of Funding:** None

### PD37-02
### OBESITY, WEIGHT GAIN AND NEW COMORBIDITIES IN PATIENTS WITH URINARY INCONTINENCE FOLLOWING PROSTATE CANCER SURGERY

*Elaine Redmond*, Chris Doiron, Keith Rourke, Edmonton, Canada*

INTRODUCTION AND OBJECTIVE: Approximately 3-5% of patients develop urinary incontinence following prostate cancer surgery. Post-prostatectomy incontinence (PPI) can have debilitating social consequences which may deter the patient from engaging in physical activity and increase the risk of developing comorbidities. The aim of this study was to examine the effect of PPI on the development of weight gain and new comorbidities in patients with PPI undergoing anti-incontinence surgery.

METHODS: Patients who underwent surgery for PPI at a single center from 2004-2018 were identified. A retrospective review was performed to document patient characteristics as noted at the time of prostate cancer treatment and compare these with parameters recorded at the time of anti-incontinence surgery. Demographics included weight, body mass index (BMI), individual medical comorbidities and Charlson Comorbidity Index (CCI). Multivariate regression analysis was performed to identify factors which might influence differences in health outcomes following prostatectomy.

RESULTS: A total of 229 patients were included in the study with a mean age of 68.8 years at the time of incontinence surgery. Median duration of incontinence was 3.5$\pm$4.6 years. There was no change in weight (91.1 vs. 91.8 kg; $p=0.34$), obesity (43.6% vs. 41.8%; $p=1.0$) or BMI (29.6 vs. 30.0; $p=0.18$) between prostate cancer surgery and PPI surgery. There was a significant increase in CCI between prostate cancer surgery and PPI surgery (2.7$\pm$1.5 vs 4.1$\pm$1.9, $p<0.0001$). Almost half of patients (45.2%) developed a new comorbidity while awaiting incontinence surgery including an increase in the incidence of diabetes (21.9% vs. 12.7%; $p<0.0001$), hypertension (56.2% vs. 36.7%; $p<0.0001$), coronary artery disease (14.6% vs. 8.9%; $p=0.008$) and arrhythmia (11.0% vs. 3.8%); $p=0.008$). On multivariate analysis, the duration of incontinence (years) significantly predicted the likelihood of developing a new comorbidity (O.R. 1.2; 95% CI 1.1-1.4; $p<0.01$) while age ($p=0.20$) and severity of incontinence ($p=1.0$) did not.

CONCLUSIONS: Patients with PPI may be at higher risk of developing new comorbidities while awaiting anti-incontinence surgery which may be related to the duration of incontinence. Strategies which expedite return of continence such as early surgical intervention, may facilitate the resumption of physical activity and minimise the risk of future comorbidity.

**Source of Funding:** none

### PD37-03
### POST PROSTATECTOMY INCONTINENCE INTERVENTION TRENDS IN HIGH RISK COHORT OVER FIVE YEARS

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INTRODUCTION AND OBJECTIVE: The clinical outcomes of men with moderate to severe post-prostatectomy incontinence (PPI) have not been adequately studied. Our aim was to assess if moderate to severe bother symptoms and high pad per day (PPD) count at 3 months post-operatively were predictive of requiring interventions for incontinence. We hypothesized that men with either of these factors would be more likely to have subsequent incontinence procedures.

METHODS: The study population included men with localized prostate cancer treated with radical prostatectomy at a single center from December 1999 to October 2014. EPIC-26 and UCLA surveys were completed up to 60-months follow-up. We excluded all patients who were using $<$3 PPD at the one month follow-up in clinic ($n=586$). Additionally, all men with $<$60 months of comprehensive clinic follow-up were excluded ($n=827$). Descriptive statistics were