

## Rethinking the Rx: Research Studies Raise Questions on Access and Pricing

BALTIMORE, May 15, 2020 /PRNewswire/ -- Drug pricing and access, and the use of opioids, continue to be major issues facing patients in the United States. The AUA will highlight four new abstracts on these topics during a special event for media on Friday, May 15 at 2:30 p.m. Dr. Benjamin Davies, a member of the AUA Public Media Committee, will moderate this press session, which will feature in-depth presentations from the authors of the following abstracts:

**Statewide Geographic Price Variation of Generic BPH Medications (#MP27-18):** Drug pricing varies significantly across pharmacy type and geographic area, according to a new study from University of Pittsburgh researchers who reviewed active pharmacies across Pennsylvania. Using data from the Pennsylvania Health Care Cost Containment Council Database, researchers reviewed out-of-pocket prices for 30-day prescriptions of four common urology drugs (finasteride, tamsulosin, oxybutynin immediate release and oxybutynin extended release) and compiled median and 75<sup>th</sup> percentile prices for each. Big chain pharmacies were found to charge 350 percent more for tamsulosin and finasteride, 150 percent more for extended release oxybutynin and 40 percent more for immediate release oxybutynin. Independent pharmacies demonstrated significantly more regional variation in pricing for these drugs.

**Direct-to-Consumer PDE-5 Inhibitor Telemedicine Marketing Platforms Overlook Crucial Pathology: Quantifying the Value Added of the Urology Office Consultation (#PD28-05):** Direct-to-consumer (DTC) telemedicine platforms increase access to care for patients with erectile dysfunction, but may overlook crucial pathology or other significant conditions for which ED is a sentinel risk factor. Researchers reviewed medical records for men evaluated at an academic andrology clinic and found that a considerable portion of younger men who presented with erectile dysfunction at the clinic had metabolic conditions such as obesity, high cholesterol, diabetes and hypogonadism, as well as risk factors for subfertility, that are not captured by DTC platforms.

**Patient-Reported Pain Outcomes Following Opioid-Free Prostatectomy and Nephrectomy (#MP27-11):** Most patients undergoing prostate and kidney removal may be managed effectively without opioids during the post-operative period, according to new data from researchers in Pittsburgh. Using a validated questionnaire, researchers assessed patient-reported pain outcomes following nephrectomy and prostatectomy, comparing responses from patients who received opioids following surgery and those for whom opioid-free pain management was utilized. There were no significant differences in measured pain outcomes between the groups.

**An Opiate-Free Pathway Does Not Negatively Impact Patient Reported Outcomes following Ureteroscopy (#MP83-13):** A new study from researchers in Michigan suggests an opioid-free pathway may be reasonable for patients undergoing ureteroscopy. Fifty-four patients undergoing ureteroscopy for stone disease completed the PROMIS® questionnaire, an instrument used to measure pain intensity and interference, both preoperatively and postoperatively. No significant difference was found between patients who received opioids following their procedure and those for whom an opiate-free pathway was prescribed.

"Both issues addressed in this session – no opioid surgery and pharmaceutical pricing problems – are purposely patient-orientated studies," Dr. Davies said. "Addressing the opioid epidemic and understanding the vagaries of our pharmaceutical pricing system will help our patients be better prepared for the future."

*About the [American Urological Association](#): Founded in 1902 and headquartered near Baltimore, Maryland, the American Urological Association is a leading advocate for the specialty of urology, and has nearly 22,000 members throughout the world. The AUA is a premier urologic association, providing*

*invaluable support to the urologic community as it pursues its mission of fostering the highest standards of urologic care through education, research and the formulation of health care policy.*

## **MP27-18**

### **Statewide Geographic Price Variation of Generic BPH Medications**

*Anup Shah, Omar Ayyash, Jathin Bandari, Praveen Kumar, Jonathan Yabes, Anobel Odisho, Benjamin Davies, Bruce Jacobs*

**Introduction:** Medical therapy for benign prostatic hyperplasia (BPH) can be expensive, having significant implications for elderly Americans who are either uninsured or underinsured. We sought to examine the variation in out-of-pocket costs for generic BPH medications in the state of Pennsylvania.

**Methods:** We identified all active pharmacies in Pennsylvania and divided the state into 9 regions based on data from the Pennsylvania Health Care Cost Containment Council Database. We generated a 20% random sample of big chain and independent pharmacies and queried them to determine out-of-pocket prices for a 30-day prescription of: tamsulosin 0.4mg, finasteride 5mg, oxybutynin immediate release (IR) and oxybutynin extended release (XL). Each drug's median and 75th percentile price was compiled for both pharmacy types in each region. Our primary outcomes of interest were identifying price variation based on pharmacy type and price variation between the 9 regions.

**Results:** We noted an 88% response rate among all retail pharmacies queried. For independent pharmacies, the median list price for a 30-day prescription of tamsulosin, finasteride, oxybutynin IR and oxybutynin XL was \$15, \$15, \$35 and \$31, respectively. For big chain pharmacies, the prices were \$66, \$68, \$49 and \$79, respectively. We fit multivariate logistic regression models to identify variation at the median and 75th percentile price while controlling for region and pharmacy type. When controlling for region, the median and 75<sup>th</sup> percentile price of all drugs was significantly higher for big chain pharmacies. When controlling for pharmacy type, there was a significant regional variation in median prices of finasteride and oxybutynin IR, but not for tamsulosin or oxybutynin XL. The percent deviation from the median price was overall positive for big chain and negative for independent pharmacies (Figure 1).

**Conclusions:** Compared to independent pharmacies, big chain pharmacies charged 350% more for tamsulosin and finasteride, 40% more for oxybutynin IR, and 150% more for oxybutynin XL. Independent pharmacies however, demonstrated significantly more regional variation in their pricing. Understanding pharmaceutical price variation between different regions across an entire state could be influential in driving health policy changes at the state level.

**Funding Source:** *None*

## **PD28-05**

### **Direct-to-consumer PDE-5 Inhibitor Telemedicine Marketing Platforms Overlook Crucial Pathology: Quantifying the Value Added of the Urology Office Consultation**

*Robert Shahinyan, Arash Amighi, Alson Carey, Dar Alex Yoffe, Devyn Hodge, Matthew Pollard, Justin Nork, Jesse Mills, Sriram Eleswarapu*

**Introduction:** Erectile dysfunction (ED) is increasingly recognized among young men. Direct-to-consumer (DTC) telemedicine platforms have emerged to market prescriptions for oral PDE-5 inhibitors to young men without formal evaluation. We hypothesized that internet platforms miss crucial pathology or conditions that warrant further assessment. We aimed to evaluate the benefits of a urology office visit in young men, the

target demographic for DTC platforms.

**Methods:** With IRB approval, we retrospectively reviewed medical records of men age  $\geq 40$  evaluated for ED at an academic andrology clinic during 1/2016-3/2019. Exam findings, lab results, and prescribed treatments were extracted. Descriptive statistics were calculated.

**Results:** We identified 388 patients. Mean age was 29.5 years (SD 5.0). BMI was measured for 366 men; 56 (15%) had BMI $>30$ . Metabolic lab results including hemoglobin A1c, total cholesterol, LDL, and triglycerides are in Table 1. Hormone lab results including total testosterone (T), estradiol (E2), LH, FSH, and prolactin were measured. Men with low T or elevated FSH are in Table 1. E2 among 364 men was 23.79 pg/dL (SD 12.89). LH among 342 men was 5.41 mIU/mL (SD 3.23). Semen analysis was completed by 64 men; 26 (40%) were abnormal based on WHO 5th edition criteria. Varicoceles were identified in 35% of cohort; stratification by grade is in Table 1. 371 men were treated medically; 328 (88%) received tadalafil daily; 52 (14%) received sildenafil PRN; 122 (33%) received clomiphene; 45 (12%) received anastrozole or letrozole; and 36 (9.7%) received testosterone replacement therapy.

**Conclusions:** Office consultation identified young men with obesity, dyslipidemia, diabetes, hypogonadism. These data support ED as a sentinel risk factor for cardiovascular comorbidities, neglected by DTC online platforms. A considerable proportion of young men had risk factors for subfertility, such as varicocele or elevated FSH, also not captured by DTC platforms. Despite these findings, telemedicine platforms increase access to care. Urologists should increase their involvement and oversight of these platforms.

**Funding Source:** *Research Scholar Award from the Urology Care Foundation & American Urological Association.*

## MP27-11

### Patient-Reported Pain Outcomes Following Opioid-Free Prostatectomy and Nephrectomy

*Hermoon Worku, Kody Armann, Natalie Pace, Devin Rogers, Kelly Pekala, Bruce Jacobs, Benjamin Davies*

**Introduction:** Our Urology Department started an initiative to reduce opioid prescribing among patients undergoing prostatectomy and nephrectomy. To assess the effect of this reduction in opioids on patient-reported pain outcomes, we employed a validated questionnaire and compared the results of patients who received opioid and opioid-free pain management following prostatectomy or nephrectomy.

**Methods:** We distributed the American Pain Society Patient Outcome Questionnaire to patients during their first postoperative office visit following prostatectomy and nephrectomy from January through June 2019. We supplemented and paired questionnaire data with patient demographics, postoperative pain prescriptions, hospital course, and surgeon characteristics. Questionnaire results between patients receiving opioid and opioid-free pain management were compared with Wilcoxon rank-sum tests.

**Results:** A total of 99 patients completed the questionnaire following prostatectomy (n=57) or nephrectomy (n=42), with an overall response rate of 32%. There were no significant differences in measured pain outcomes between patients who received opioid or opioid-free pain management. Amount of pain experienced, time in pain and effect of pain on recovery and mood were all statistically similar (p $>0.05$ ) between groups following both prostatectomy and nephrectomy (Figure 1).

**Conclusions:** Based on patient questionnaire responses, patients can be managed without opioids to no deleterious effect on pain control. These results support the adoption of opioid-free prostatectomy and nephrectomy for most patients.

*Funding Source: Shadyside Hospital Foundation, Henry L. Hillman Foundation*

**MP83-13**

## **An Opiate-free Pathway does not Negatively Impact Patient Reported Outcomes Following Ureteroscopy**

*Ivan Rakic, Spencer C Hiller, Kavya Swarna, John Hollingsworth, Khurshid R Ghani, Sapan Ambani, William Roberts, Casey Dauw*

**Introduction:** Studies indicate that opiates are frequently prescribed after ureteroscopy (URS) and can lead to dependence. Efforts have been made to move to an opiate-free (OF) pathway following URS at our institution. The impact of this pathway on patient reported outcomes (PRO) is both important and unclear. We sought to determine the impact of an OF pathway on PRO.

**Methods:** We prospectively administered the PROMIS® (Patient-Reported Outcomes Measurement System) questionnaire to adult patients undergoing URS for stone disease at our institution (9/2019 – 10/2019). This validated instrument measures both pain intensity and interference. PROMIS was completed preoperatively and again on postoperative day 7 to 10. Raw scores were translated into normed T-scores with a T-score of 50 considered the reference population mean and a score of 60 considered 1 standard deviation above the mean. Patients were placed on an OF pathway at the discretion of the treating urologist. Clinical and operative characteristics were abstracted by chart review. We used bivariate statistics to compare T-scores pre- and postoperatively in those who were and were not OF. We also assessed if an OF pathway was associated with a higher rate of more severe postoperative pain (T-scores >60).

**Results:** 54 patients completed both the pre and postoperative PROMIS® survey (62% response rate). An OF pathway was used in 81% of cases. OF patients were similar to non-OF with regard to mean stone size (7.1mm vs 6.9mm; p=0.9) and rate of postoperative stent placement (61% vs 60%; p=0.9). Mean pre-operative T-scores for OF and non-OF patients were similar for both intensity (48.8 vs 50.2, p=0.7) and interference (59.2 vs 60.9, p=0.6). These findings persistent postoperatively (intensity: 46.6 vs 49.4, p=0.4; interference: 58.8 vs 61.6, p=0.5) (Figure). OF patients did not have significantly higher rates of a post-operative T-score >60 compared to non-OF with regard to intensity (12% vs 10%, p=1) and interference (53% vs 60%, p=1).

**Conclusions:** Implementation of an OF pathway following URS does not appear to negatively impact PRO. Further utilization of such validated instruments across a wider swathe of practices will offer additional insight into the patient experience following URS.

*Funding Source: None*

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