Urological Society for American Veterans (USAV) Annual Meeting

MONDAY, APRIL 28, 2025
7:30 AM – 12:00 PM

Venetian Expo Center
Palazzo Ballroom A

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USAV AGENDA:

7:30 - 8:00 AM	**REGISTRATION, VISIT EXHIBITS - COMPLETE YOUR PRIZE CARD BY ASKING FOR A STICKER TO BE ELIGIBLE FOR THE DRAWINGS!**
01) 8:00 AM	Welcome & USAV Update **Mark Sawyer, MD,** USAV President **Thomas Masterson, MD / Jaime Cavallo, MD, MPHS,** USAV Program Chairs
02) 8:15 AM	Radiation Cystitis and HBOT. **Rachel A. Moses MD, MPH, MD,** Dartmouth Health
03) 8:25 AM	Male SUI Panel **Moderator: Jaime Cavallo, MD, MPHS** **Panelists: Justin Parker, MD, Aram Loeb, MD, Sherita King, MD, Brian Flynn, MD**
04) 8:55 AM	Journey to Inner Calm: Utilizing Mindfulness in the Battle Against Physician Burnout. **William Aronson, MD,** UCLA Dpt.of Urology **Supported by Bayer**
05) 9:15 AM	NSO Update. **Jeremy Shelton, MD**, MSHS, UCLA

9:25 AM

Network Break
Meet & Greet with Industry!

Visit Exhibits and Win!
Complete your Prize Card to be included in the drawings for great prizes!!

Ask the exhibitors for a sticker!

We thank our industry partners for their support and dedication to the USAV.

Viewing of the Unmoderated Posters

Poster1: MR Imaging and Pathologic Characteristics of PIRADS 4 Lesions Prospectively Identified as Prostate Cancers on Biparametic Prostate MRI. **Matthew Antonellis, Medical Student, VA Brooklyn Harbor**

Poster2: Urinary Retention Improvement for Larger Prostates Through Rezum. **Stacy Bedore, PhD, Medical Student, Medical College of Georgia**

Poster3: Prevalence and Phenotype of Lower Urinary Tract Symptoms (LUTS) in Patients with Fibromyalgia**. Gustavo Capo, BS, Medical Student, Charlie Norwood VA Medical Center**

Poster4: Subcapsular Orchiectomy, A Forgotten but Effective form of Androgen Deprivation For Prostate Cancer Patients. **Jared Goldstein, MD, Fellow-Male Reprod. Surgery, Providence, RI**

Poster5: Dual balloon catheter to reduce catheter-related complications, results of a prospective, single-center, randomized controlled trial. **Onuralp Ergun, MD, Resident, Minneapolis VAMC**

Poster6: Kara-not-oke: Delayed presentation of renal pseudoaneurysm after fall. **Isabel Gibson, MD, Resident, Madigan Army Med. Ctr.**

Poster7: Attitudes towards Antibiotic Prescribing and Awareness of Antimicrobial Resistance in Americans and Canadians. **Samuel Helrich, MD, Resident, VA Boston Healthcare**

Poster8: Shortages and Supply Disruptions for Key Therapies for Testicular Cancer and Other Malignancies. **Thomas J. Hwang, MD, Resident, VA Boston Healthcare**

Poster9: A comparison of racial and socioeconomic disparities in prostate cancer-specific mortality in the Veterans Administration to other health systems. **Hari S. Iyer, ScD, Young Urologist, WLA Greater Los Angeles**

Poster10: Impact of Amniotic Membrane Allograft Application during Radical Prostatectomy on Development of Bladder Neck Contractures. **Merry W. Ma, MD, Resident, Charlie Norwood VA Medical Center**

Poster11: He Put a Ring on It: Single Center Review of Penile and Scrotal Entrapment Cases. **Edward Machen, MD, Resident, Charlie Norwood VA Medical Center**

Poster12: Coagulopathic and Radiation Impacts of Prostate Artery Embolization. **Reno P. Maldonado, MD, Resident, Eastern Colorado Veterans Affairs Hospital**

Poster13: Semen parameters and exposure risks in military males (SPERMM). **Trevor J. Maloney DO, Resident, Walter Reed National Military Medical Center**

Poster14: Current Trends in the Management of Urethral Stricture Disease, 2000-2024: Analysis of a Large Veterans Affairs Health Database **Merlin Mamachan, M.V.Sc1, San Diego VA Medical Center**

Poster15: National Trends in Vasectomy Procedures in the VA Health Care System During COVID and Dobbs. **Ashley N. Matthew, MD, PhD, Resident, Richmond VAMC/Virginia Commonwealth University Health System**

Poster16: Concomitant Surgeries at the Time of Holmium Laser Enucleation of the Prostate (HoLEP). **Chloe A. Michel, MD, Young Urologist, Johns Hopkins**

Poster17: Challenges in Utilizing Real World Data to Assess Resolution of Post Operative Incontinence Following Benign Prostatic Hyperplasia Surgery. **Zizwa Mwafulirwa MD, Volunteer Research Asst., VA Boston Healthcare System**

Poster18: Reducing Ischemia Reperfusion Injury in Renal Cells Using Emodin. **Harpreet Singh, MD, Joint Base Lewis - McChord**

Poster19: Germline Testing for Renal Cancers, How Age, and Tumor Characteristics Affect Pathogenic Variants. **Robert Smith, MD, Resident, Ralph H Johnson**

Poster20: Ureteroscopic Thulium versus Holmium Laser Stone Fragmentation for Renal and Ureteral Stones: A Cochrane Review. **Jonathan Sussman MD, Resident & Jake Ratanawong, Medical Student,Minneapolis VA**

Unmoderated Poster Session/Viewing (continued)

Poster21: The Future Is Bright For Women In Urologic Oncology: Trends Over Two Decades. **Gabrielle R Yankelevich, DO, Resident, Ralph H Johnson**

Poster22: Does Requiring Written Consent for Prospective Enrollment Lead to Selection Bias in Chart-Review Studies? Results from a Prostate Cancer Study in the Veterans Affairs. **Renning Zheng, BS, Visiting Graduate Student, Cedars-Sinai Medical Center**

Poster23: Estimating the Carbon Emissions of a Single PSA Test: Results from a Cradle-to-Grave Life Cycle Assessment. **Stephan Korn, Brigham & Women's Hospital**

Poster24: PSMA PET Detected De Novo Metastatic Prostate Cancer in an Equal Access Health System – Defining Opportunities for Earlier Detection. **Amana R. Liddell, VA Greater Los Angeles Healthcare System**

Poster25: A Cross-Sectional Survey of Clinical Practice and Guidelines Adoption for Urolithiasis Prevention. **John Leppert, MD MS, Chief of Urology, VA Palo Alto Health Care System**

PODIUM PRESENTATIONS

05) 10:00 AM AUA Past President Address. **Randall Meacham, MD, University of Colorado**

06) 10:10 AM Multiport (XI) vs SP robot system. **Preston Sprenkle MD, Yale Schl. of Medicine**

07) 10:25 AM **Supported Talk by BD**

10:45 AM

Short Stretch Break - Visit the exhibitors and finish completing your prize cards for the prize drawings!

11:00 AM - 11:50 AM - Moderated Abstract Podium Presentations (4 minute paper presentations)

08) Disparities +C23in PSA Screening Rates Among Disabled and Non-Disabled Populations: Impact of USPSTF Guideline Changes. **Cedrick B. Chiu, BS, UMass Chan Medical School**

09) Functional outcomes following cystectomy with ileal neobladder. **Sierra N. Tolbert, MD, Resident, Capt USAF, MAYO**

10) Lower Utilization of Prostate MRI for Rural Veterans During Initial Evaluation of Elevated PSA. **Mitchell M. Huang, MD, Resident, Jesse Brown VA**

11) Efficacy of Sacral Neuromodulation in the Majority Male and Elderly Veteran Population. **Olamide Olawoyin, MD, Yale School of Medicine**

12) Trends and Predictors of Post Ablation Functional Outcome Scores for Prostate Cancer at One Year Follow up.**Gabriela M. Diaz, MD, Postdoctoral Research Fellow, Yale School of Medicine**

13) Perineural Invasion is No Longer Associated with Prostate Cancer Upgrading on Active Surveillance in the MRI Fusion Biopsy Era. **Nethusan Sivanesan, BS, Yale School of Medicine**

14) Real-World Analysis of an Exosome-Based Screening Tool for Prostate Cancer in a Diverse Patient Cohort. **Ryan Fogg, MD, PGY-4 Resident, Central Virginia VA Health Care System**

15) The Prognostic Performance of Cxbladder Triage Plus for the Identification and Priority Evaluation of Veterans at Risk for Urothelial Carcinoma: The DRIVE Study. **Kyoko Sakamoto, MD, Section Chief, San Diego VA**

16) 11:50 AM Supported Talk by AstraZeneca

Next up - Awards and Prize Drawings

TO VIEW THE MEETING ABSTRACTS

Please visit

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VIEW 2025 USAV PROGRAM & ABSTRACTS

12:10 PM

Awards Ceremony

First Place
Podium Award

Second Place
Podium Award

Third Place
Podium Award

First Place
Poster Award

Second Place
Poster Award

Third Place
Poster Award

Stay for the drawings!

Be sure to get your
PRIZE CARD turned in.

Chance to win great prizes!!

Thank You!

for attending today!

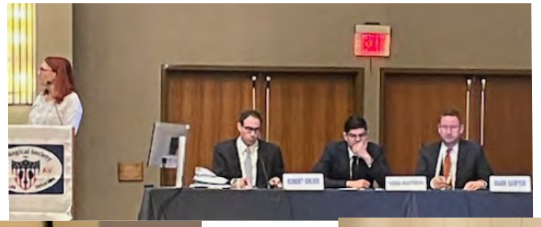
Join the USAV

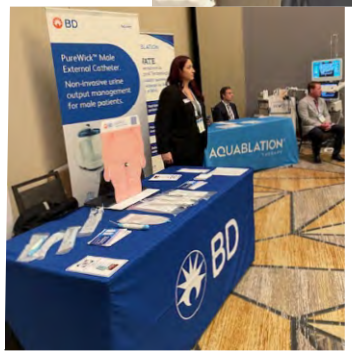
at

https://govurology.org/usav/

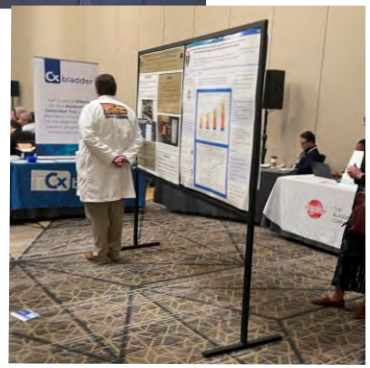
2024 Meeting Highlights - San Antonio

PODIUM PRESENTATIONS AWARDS: 1st Place – **Justin Lee, MD**, Bronx VA, 2nd Place – **Gabrielle Yankelevich, MD**, Medical University of South Carolina, 3rd Place – **Brittany Berk, MD**, Boston VAMC. **2 BEST POSTER AWARDS: Daniel Jiang, MD,** Long Beach VA Medical Center**, Jenna Winebaum, MD**, UC San Francisco. (Pictured back row) Program Co-Chair: Mark Sawyer, MD; Judges/Moderators: Mohammad Hajiha, MD & Mona Jahromi, MD; President: Robert Grubb, MD; Program Co-Chair: Thomas Masterson, MD





2024



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2025 USAV ABSTRACT PODIUM PRESENTATIONS

ABSTRACT PODIUM PRESENTATION # 1

DISPARITIES IN PSA SCREENING RATES AMONG DISABLED AND NON-DISABLED POPULATIONS: IMPACT OF USPSTF GUIDELINE CHANGES

Cedrick B. Chiu, Orleiquis Guerra, Brielle Barclay-Rochefort, Katherine Merport, Allison Crawford, Jennifer Davila-Aponte, Mitchell H. Sokoloff

Worcester, MA

Presentation to be made by Mr. Cedrick Chiu

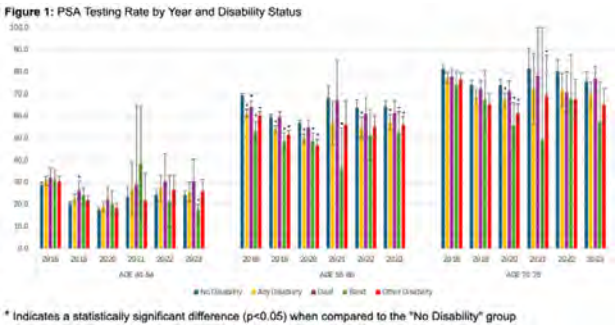
Intro: In 2018, the US Preventive Services Task Force updated PSA screening guidelines to individualized decision-making for men aged 55-69 and advised against routine screening for men 70 and older. However, individuals with disabilities continue to face barriers like inaccessible facilities and systemic inequities. This study investigates PSA screening disparities between disabled and non-disabled populations.

Methods: The NIH BRFSS data from 2016, 2018, and 2020-2023 were analyzed for patients aged 40 or older. PSA screening rates were compared across three age groups (40-54, 55-69, and 70-75) and disability categories: blind, deaf, and other disabilities (OD). Patients were excluded if they had a prior history of prostate cancer or if certain data were missing, including PSA test results or demographic information such as race, education level, and disability status. Multivariable logistic regression models adjusted for demographic, socioeconomic, and healthcare access factors compared screening rates between non-disabled and disabled groups. All analyses used complex sampling weights to account for BRFSS design.

Results: Among the 45,939,908 included participants there were 34,045,222 non-disabled patients, 3,948,895 deaf patients, 2,301,742 blind patients, and 8,884,787 OD patients. In patients aged 40–54, screening rates were similar except in 2023, when blind patients had significantly lower PSA testing rates than non-disabled patients (17.5% vs. 24.2%, $p<0.05$). For patients aged 55-69, blind patients had significantly lower screening rates than non-disabled patients in all years except 2022, and OD patients showed disparities in 2016, 2018, 2020, and 2023. Among 70-75-year-olds, significant disparities were observed for blind patients in 2020 (55.8% vs. 73.9%, $p<0.05$) and for OD patients in 2018 and 2020. Veterans with disabilities had higher odds of PSA screening (OR 1.20, 95% CI 1.11-1.29, $p<0.05$). Across all age groups and disability categories, there was a significant difference in the main reasons for obtaining a PSA test, with discussions about the advantages and disadvantages varying significantly between non-disabled patients and all disability groups, particularly among patients aged 55-69.

Conclusion: We found a reduction in PSA screening disparities compared to previous studies, particularly in the 40-54 and 70-75 age groups. Fewer disparities were observed among deaf patients, but significant gaps remain for blind and OD patients, especially in the 55-69 age group. While progress has been made, these results highlight the need for continued efforts to ensure equitable access to PSA testing for individuals with disabilities.

Source of Funding: None



ABSTRACT PODIUM PRESENTATION # 2

FUNCTIONAL OUTCOMES FOLLOWING CYSTECTOMY WITH ILEAL NEOBLADDER

Bridget L. Findlay*, MD, Sierra N. Tolbert, MD, Boyd R. Viers*, MD, Robert F. Tarrell*, Prabin Thapa*, MS, MD, Katherine T. Anderson*, MD

Mayo Clinic, Rochester, MN. Presentation to be made by Dr. Sierra Tolbert (formarly Pence)

Introduction and Objective:
Urinary incontinence and urinary retention are potential functional outcomes following cystectomy with ileal neobladder creation. We aim to define preoperative and intraoperative factors associated with urinary incontinence and urinary retention in this population.

Methods:
We reviewed the records of 829 patients who underwent radical cystectomy with ileal neobladder creation between 1990 and 2023 at our institution. Outcomes of interest included urinary incontinence (>1 pad per day) and urinary retention (need for clean intermittent catheterization or indwelling catheter). Univariable logistic regression analysis was performed to evaluate the association of preoperative patient, disease-specific, and intraoperative factors with each of these outcomes.

Results:
Of the 829 patients, 104 (13%) were women. Median follow-up from time of cystectomy was 7.2 years (IQR 2.4-14.2). At the time of last follow-up, 160 patients (19%) used >1 pad per day. Risk of incontinence increased with age at the time of cystectomy (OR 1.04; 95% CI 1.02-1.06; p<0.01). Women were nearly two times more likely to use >1 pad per day (OR 1.8; 95% CI 1.1-2.9, p=0.01) compared to men. On subgroup analysis of women, there was no significant difference in urinary incontinence when organ sparing or nerve sparing were performed at the time of cystectomy. A total of 62 patients (7.5%) had urinary retention requiring catheterization. Women were more likely to have urinary retention postoperatively compared to men (OR 1.5, 95% CI 1.01-2.3, p=0.04). Factors not associated with urinary retention included node-positive disease at the time of cystectomy, need for neoadjuvant chemotherapy, and perioperative systemic therapy (all p<0.05). There was no significant difference in risk of urinary retention with nerve sparing at the time of cystectomy.

Conclusions:
The majority of patients do not develop urinary incontinence or retention after cystectomy with ileal neobladder. Women and older patients are at a higher risk of both outcomes. In this cohort, nerve sparing and female organ-sparing did not have a significant impact on postoperative outcomes.

Source of Funding: None

ABSTRACT PODIUM PRESENTATION # 3

LOWER UTILIZATION OF PROSTATE MRI FOR RURAL VETERANS DURING INITIAL EVALUATION OF ELEVATED PSA

Mitchell M. Huang[1,3], Joseph D. Nicolas*[1,3], Ridwan Alam*[1,3], Nicole Handa*[1,3], Yutai Li*[1,3], Clayton Neill*[1,3], Ashley E. Ross*[1], David J. Bentrem[2,3], Adam B. Murphy[1,3], Hiten D. Patel[1,3]

1. Department of Urology, Feinberg School of Medicine, Northwestern University, Chicago, IL.
2. Department of Surgery, Feinberg School of Medicine, Northwestern University, Chicago, IL
3. Surgery Service, Jesse Brown VA Medical Center, Chicago, IL

Presentation to be made by Dr. Mitchell M. Huang

Introduction and Objective: Over 60 million Americans live in rural or geographically isolated locations. Because of limitations in access health care and routine screening, rural populations often experience worse health outcomes from preventable disease. We assessed the association of rural geography with prostate MRI utilization for Veterans.

Methods: We assessed diagnostic testing for prostate cancer among Veterans with an elevated PSA diagnosis from 2004-2023 across the Veterans Health Administration (VHA), the largest integrated health care system in the United States serving >9 million Veterans. We divided patients by rurality ("Rural" vs "non-Rural") based on the Federal Office of Rural Health Policy's classification of their primary residence ZIP code. We compared baseline characteristics, prostate cancer detection practices, and MRI utilization by year. For MRI utilization, we focused our analysis on the period from 2015-2023. Comparisons were made using *t*-test, Chi-square test, and multivariable logistic regression.

Results: Among 668,308 patients with an elevated PSA diagnosis, 185,907 (28%) had a Rural primary residence. There were clinically minimal, but statistically significant differences in age (Rural median 74, IQR 69-77 vs non-Rural median 73, IQR 67-76) and PSA on presentation (Rural median 4.99, IQR 4.14-6.59 vs non-Rural median 5.00, IQR 4.14-6.68) (both $p<0.001$). Rural patients were significantly more likely to be White (Rural 75.2% vs. 59.9% non-Rural, $p<0.001$). There were marginally lower rates of prostate biopsy (Rural 39.8% vs. non-Rural 40.9%, $p<0.001$) and prostate cancer diagnosis (Rural 32.1% vs non-Rural 33.3%, $p<0.001$) for Rural patients. For the period of 2015-2023, there was a significantly lower rate of MRI utilization prior to biopsy for Rural patients (13.1% Rural vs. 17.5% non-Rural; -4.4% absolute difference, -25.2% relative difference, $p<0.001$). By 2023, 35% of Rural patients underwent MRI before biopsy compared to 43% of non-Rural patients ($p<0.001$). Controlling for age, initial PSA, and race, Rural primary residence was associated with lower odds of MRI utilization prior to biopsy (OR: 0.90, 95%CI: 0.89-0.92, $p<0.001$).

Conclusions: Despite presenting with similar age and PSA as their non-rural counterparts, rural patients in the VHA were ~19% less likely (8% absolute difference) to undergo pre-biopsy prostate in 2023. These findings could inform policies for capacity building or purchased care to expand access to prostate MRI for rural Veterans.

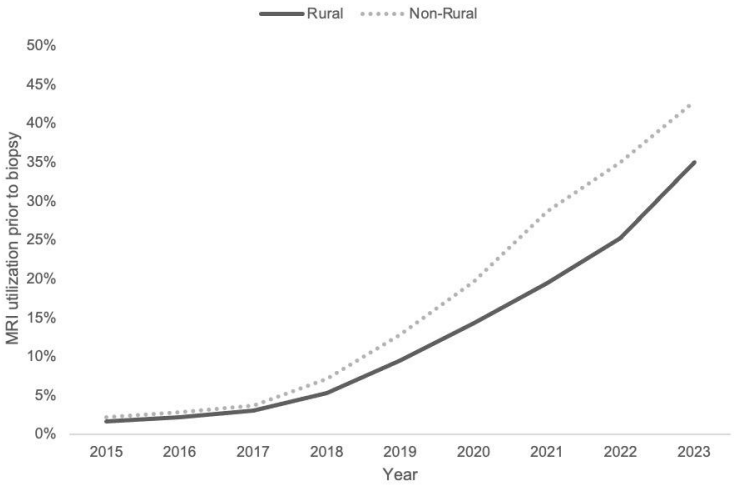


Figure. MRI utilization over time by geography of primary residence

Abbreviations: MRI – magnetic resonance imaging

ABSTRACT PODIUM PRESENTATION # 4

EFFICACY OF SACRAL NEUROMODULATION IN THE MAJORITY MALE AND ELDERLY VETERAN POPULATION

Olamide Olawoyin[1], Ankur U. Choksi[1*], Harris E. Foster[1]
[1]Department of Urology, Yale School of Medicine, New Haven, CT

Presentation to be made by Dr. Olawoyin

Introduction and Objective: To evaluate the efficacy of sacral neuromodulation (SNM) in patients at the Veterans Affairs Medical Center (VAMC) with a primary diagnosis of overactive bladder (OAB) with and without urge incontinence (UI), and idiopathic nonobstructive urinary retention.

Methods:

We performed a retrospective cohort review of patient at the VAMC who underwent a trial of SNM between January 2017 and December 2024. Patient demographics, indication for surgery, urodynamics evaluation, concurrent diagnosis of BPH, compliance with programming, and >50% symptoms improvement from baseline after 6 months from second stage device implantation were evaluated. Univariate analysis with two tailed t-tests was performed to analyze continuous variables and Chi-squares test was performed to analyze categorical variables.

Results:

On retrospective review, 45 patients underwent a trial of SNM at the VAMC between 2017 and 2024. Indications included OAB with UI in 15/45 patients, without UI in 24/45, and idiopathic nonobstructive urinary retention in 6/45 patents. Average age of the patients was 71 years and typical of the VA population, the majority were male (82%) and White (87%). 67% of patients had the diagnosis confirmed by urodynamics prior to device implantation. 84% of patients reported >50% improvement 2 weeks after Stage 1 and subsequently underwent Stage 2 implantation. At 6 months follow up of patients who underwent Stage 2 implantation, 61% of patients reported continued improvement in their symptoms including 67%, 53%, and 75% in those with OAB with UI, OAB without UI, and urinary retention, respectively. There was no statistically significant difference in outcome based on age, race, gender, or diagnosis.

Conclusions:

Eighty-four percent of VAMC patients who underwent stage 1 sacral neuromodulation for either OAB with or without UI and idiopathic urinary retention proceeded to second stage implantation, 61% in this group reported continued >50% improvement in their symptoms at 6 months. The group with the highest success rate at 6 months were those who had OAB with UI and urinary retention. The overall success rate is lower than previously reported 85% sustained improvement in the general population. Notably, the mean age in these studies was 51 years and the majority of patients were female compared to the mean age of 71 years and 82% male population in this VAMC cohort. Notwithstanding these findings, SNM can be an effective treatment option in the veteran population with standard indications.

Source of Funding: none

Table showing demographics and improvement data 6 months after implantation of sacral neuromodulator

	OAB with UI	*OAB without UI*	*Retention*	*Total*	*p-value*
Number	15	24	6	45	
Age, Mean (yrs)	72±8.3	71±15.0	71±13.2	71±13	0.305
Sex, male (%)	11/15	21/24	5/6	37/45 (82%)	0.529
Race					0.440
White	13/15	20/24	6/6	86.6%	
Black	1/15	4/24	--	11%	
Other	1/15	--	--	6%	
Prior UDS	11/15	14/24	5/6	67%	0.301
Second stage	15/15 (100%)	19/24 (79%)	4/6 (67%)	38/45 (84%)	0.095
Improvement Data 6 months after Stage 2					
6m improvement after Stage 2	10/15 (67%)	10/19(53%)	3/4 (75%)	23/38 (61%)	0.582
Age, Mean (yrs)	72±8.3	70±16.7	67±14.5	70.2±13.5	0.873
Sex, male (%)	11/15 (73%)	16/19 (84%)	3/4 (75%)	30/38 (79%)	0.727

ABSTRACT PODIUM PRESENTATION # 5

TRENDS AND PREDICTORS OF POST ABLATION FUNCTIONAL OUTCOME SCORES FOR PROSTATE CANCER AT ONE YEAR FOLLOW UP

Gabriela M. Diaz*, MD; Nethusan Sivanesan*, BS; Julian Zhao*, MSPH; Keervani Kandala*, BSc; Michael S. Leapman*, MD; Preston C. Sprenkle, MD

New Haven, CT
Yale School of Medicine
Presentation to be made by Dr. Gabriela Diaz

Introduction and Objective:

The impact of ablation therapy on functional outcome scores in prostate cancer (PCa) along with the predictive value of pre-ablation IPSS and SHIM scores on urinary and sexual function remains unexplored. This study aims to evaluate the impact of ablation therapy on functional outcomes in prostate cancer patients, focusing on changes in IPSS and SHIM scores before and after treatment.

Methods:

We conducted a retrospective study to identify patients at a single institution who underwent ablation therapy for prostate cancer with both pre- and post- IPSS/SHIM scores. Patients were stratified into primary and salvage groups. Demographics, biopsy information, ablation information, and clinical characteristics were recorded. A linear mixed model and a correlational analysis was used to assess whether post-ablation IPSS/SHIM scores changed with time and if pre-ablation scores were predictive of post ablation scores.

Results:

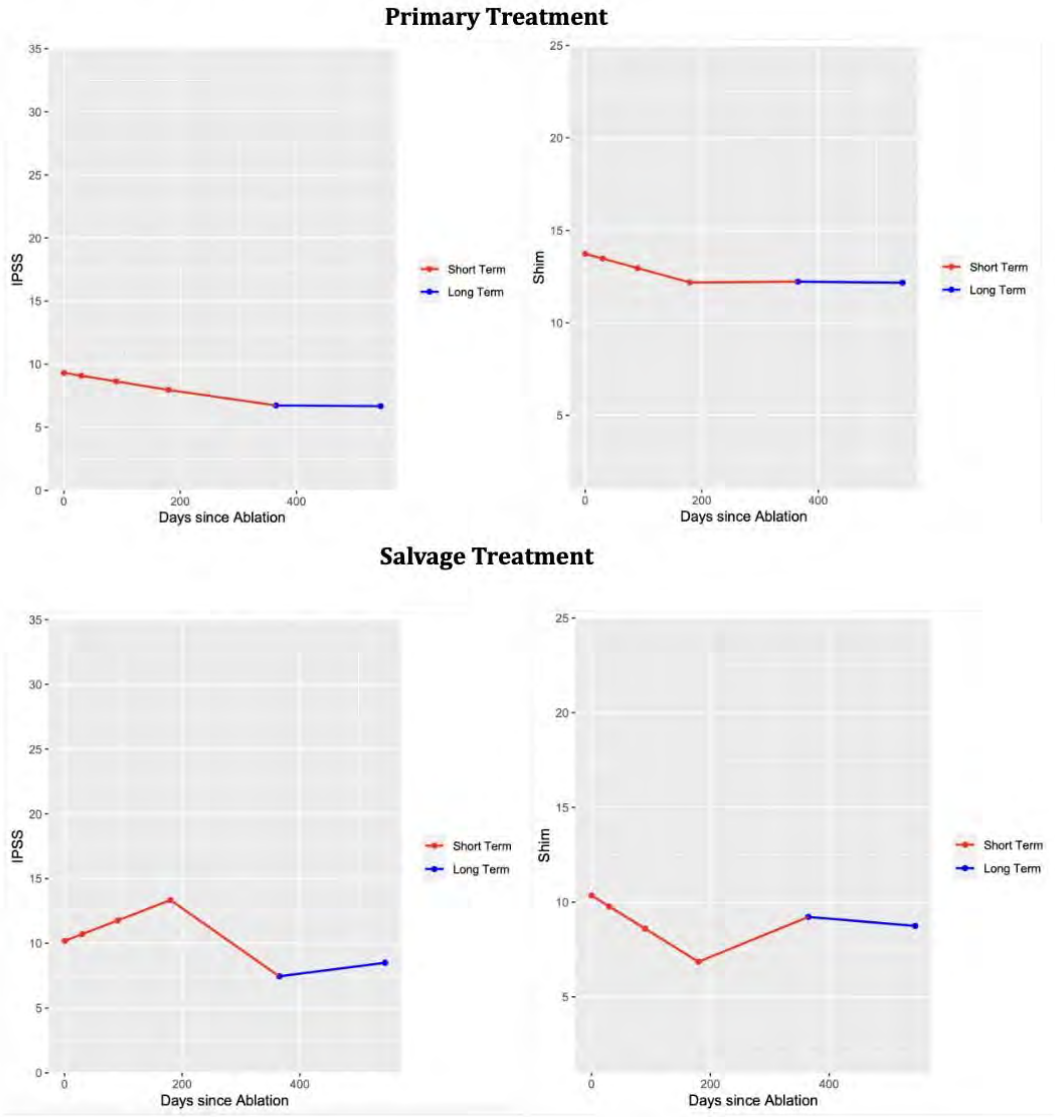
We identified 76 eligible patients who underwent ablation with both pre- and post- IPSS/SHIM scores. Among the patients who met inclusion criteria, 53 (69.7%) patients underwent primary treatment and 23 (30.26%) underwent salvage treatment. The average (SD) baseline IPSS and SHIM scores for primary treatment were 8.83 (6.85) and 15.64 (6.96), respectively. While the average baseline IPSS and SHIM score for salvage treatment was 8.13 (5.19) and 11.13 (8.26), respectively. The IPSS score in the primary group decreased by 0.226 every 30 days in the short term ($p=0.014$) but had no significant change after one year. SHIM scores also decreased by 0.26 point every 30 days ($p=0.032$) however, no difference was noted after 1 year ($p = 0.055$). In the salvage group, older age was associated with a decrease in SHIM scores post ablation ($p=0.026$). Additionally, based on pre-ablation baseline IPSS/SHIM scores, future functional scores demonstrated a positive correlation with baseline scores ($p<0.001$).

Conclusions:

Patients who undergo ablation therapy as a primary treatment for prostate cancer show significant improvement in urinary symptoms post-ablation. Meanwhile, pre-ablation IPSS/SHIM scores were predictive of post-ablation outcomes. These findings assist in pre-treatment counseling and help set realistic patient expectations.

Source of Funding: None

Figure 1. Trends in Functional Outcomes Declines from Baseline to One-Year Follow-Up for Primary and Salvage Treatments



ABSTRACT PODIUM PRESENTATION # 6

PERINEURAL INVASION IS NO LONGER ASSOCIATED WITH PROSTATE CANCER UPGRADING ON ACTIVE SURVEILLANCE IN THE MRI FUSION BIOPSY ERA

Nethusan Sivanesan, BS*; Gabriela M. Diaz, MD*; Sebastien Strachan, MD*; Keervani Kandala, BSc*; Wei Shen Tan, MD, PhD*; Michael S. Leapman, MD*; Preston C. Sprenkle, MD

New Haven, CT

Yale School of Medicine

Presentation to be made by Mr. Nethusan Sivanesan

Introduction and Objective:

Perineural invasion (PNI) has been shown to be an independent predictor for prostate cancer (PCa) aggression. The objective of this study is to determine whether PNI is associated with Gleason upgrade during active surveillance, among patients undergoing MRI-US fusion biopsy.

Methods:

An IRB approved prospectively collected database of patients having undergone MRI-US fusion prostate biopsy was queried. We identified patients diagnosed with Grade Group (GG) 1 disease on diagnostic biopsy who underwent one or more subsequent prostate biopsies during their follow up. Demographics, MRI and biopsy information, and other clinical characteristics were recorded. Univariate and multivariate logistic regression models were used to assess the association between PNI and upgrading to GG2+ disease on subsequent biopsy in models also adjusted for clinical, pathologic, imaging, biopsy timing, and sociodemographic variables.

Results:

We identified 321 eligible patients with GG1 PCa on diagnostic biopsy, 51 (65%) had PNI and 270 (84%) did not. Gleason upgrade occurred in 110 (34%) overall. Among patients with PNI, 24 (47%) experienced upgrade relative to 86 (32%) without PNI (p=0.036). Older age (OR 1.030; p=0.039) and African American race (OR 2.178; p=0.048) were associated with Gleason upgrade. A greater number of positive cores on diagnostic biopsy (OR 1.129; p=0.008) was associated with upgrade on confirmatory biopsy. Additionally, cancer detected in targeted biopsies was associated with upgrade in the future (OR 2.627; p <0.001) while non-targeted cores were not. In multivariable analysis, PNI (OR 1.622; p=0.196) was not independently associated with Gleason upgrade when adjusting for PIRADS 4-5 (OR 2.179; p=0.006) and cancer detected on targeted biopsy (OR OR 2.111; p=0.014) were.

Conclusions:

In this contemporary series of patients managed with active surveillance in the era of MRI-ultrasound fusion biopsy, PNI is no longer associated with short term Gleason upgrade when adjusting for MRI-US fusion biopsy characteristics.

Source of Funding: None

ABSTRACT PODIUM PRESENTATION # 7

REAL-WORLD ANALYSIS OF AN EXOSOME-BASED SCREENING TOOL FOR PROSTATE CANCER IN A DIVERSE PATIENT COHORT

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Presentation to be made by Dr. Ryan W Fogg

Objectives
There remains a need to develop tools to help triage patients with elevated prostate-specific antigen (PSA). The ExoDx IntelliScore® (EPI) is a urine-based diagnostic tool which has shown promise in risk-stratifying patients undergoing screening for prostate cancer in order to help determine in whom a prostate biopsy can be deferred. The purpose of this study was to examine the characteristics of EPI testing as well as its combination with multiparametric prostate MRI (mpMRI) in a diverse patient cohort.

Methods
Retrospective chart review was performed on all patients undergoing EPI testing at single Veterans Affairs and private practice institutions. EPI testing was offered in men with elevated PSA who desired additional risk stratification prior to proceeding with prostate biopsy. Test positivity was defined as >15.6 in biopsy-naïve men and >20 in men with a prior negative biopsy. mpMRI positivity was defined as the presence of a PIRADS-3 or higher lesion. Clinical data were collected retrospectively from the medical record. Statistical analysis were performed using T-tests, chi square tests, and regression analysis.

Results
A total of 342 patients were analyzed. The positive test rate across the cohort was 71.3%. Increasing age was correlated to higher EPI scores and higher likelihood of having a positive test ($p<0.001$). PSA and PSA density were not found to be related to test positivity. The positive test rate was higher in black patients compared to nonblack patients (87.8% vs 66.1%, $p<0.001$) and biopsy naïve men compared to men with a prior negative prostate biopsy (79.7% vs 62.6%, $p<0.001$). A total of 69.3% (237/342) patients underwent additional testing with mpMRI and 51.2% (175/342) underwent a subsequent prostate biopsy. Of the patients with a positive EPI test, Gleason 7 or higher disease was detected in 31.4% (55/175) of biopsy specimens. The positive predictive value (PPV) and negative predictive value (NPV) of EPI in predicting Gleason 7 or higher disease was 47.8% and 87.8. When combined with mpMRI, the PPV and NPV of EPI in in predicting Gleason 7 or higher disease was 52.5% and 100%.

Conclusion
In a real-world cohort, EPI positive test rates are relatively high, with the likelihood of having a positive test being correlated to older age, being biopsy-naïve, and black race. Test utility may decrease in cohorts with older patients and a higher proportion of black patients. Around one third of men with a positive EPI test will be found to have clinically significant prostate cancer on biopsy. EPI and mpMRI together may help further risk stratify patients undergoing screening for prostate cancer.

Disclosures: None

Sources of Funding: None

ABSTRACT PODIUM PRESENTATION # 8

THE PROGNOSTIC PERFORMANCE OF CXBLADDER TRIAGE PLUS FOR THE IDENTIFICATION AND PRIORITY EVALUATION OF VETERANS AT RISK FOR UROTHELIAL CARCINOMA: THE DRIVE STUDY

Stephen J. Savage, MD*[1], Cesar E. Ercole, MD, FACS*[2], George Hemstreet, MD, PhD*[3], Andrew Leone, MD*[4], Thomas Masterson, MD*[5], Glen W. McWilliams, MD*[6], Michael C. Risk, MD, PhD*[7], Florian R. Schroeck, MD, MS[8], Kelly Stratton, MD*[9], Tony Lough, PhD*[10], Michel De Lange, PhD*[10], Kyoko Sakamoto, MD*[11]

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1-Introduction and Objective
Cxbladder assays are prognostic urinary biomarker assays that are used for risk stratification of patients presenting with hematuria for the presence/absence of urothelial carcinoma (UC). Second-generation Cxbladder Triage Plus measures mRNA expression of 5 genes associated with UC, as well as 6 DNA single-nucleotide polymorphisms from *FGFR3* and *TERT*. The DRIVE study evaluated the prognostic performance of Triage Plus for UC in a Veterans Affairs (VA) population with hematuria.

2-Methods
This multicenter, prospective, observational DRIVE study enrolled veterans (≥18 years) from VA clinical centers with confirmed hematuria were undergoing evaluation for possible UC. Midstream urine samples were tested using the Triage Plus assay. The primary objective was external clinical validation of the prognostic performance of Triage Plus vs white light cystoscopy, including sensitivity, specificity, positive predictive value (PPV), negative predictive value (NPV), and test-negative rate (TNR). Pathologic confirmation was the gold standard for primary UC diagnosis. The study was designed to achieve 80% power to establish that the lower bound of the 90% confidence interval (CI) for sensitivity was >85%.

3-Results
Of 615 veterans with hematuria (mean age 64.5 years, 90.9% male), 587 had available Triage Plus results. Triage Plus scores were positive (0.15 threshold) in 171 patients (of whom 45 had confirmed tumors) and negative in 416 patients (of whom only 3 had confirmed tumors; false-negative rate of 0.7%; Table). Compared with the gold standard, Triage Plus had sensitivity of 94% (95% CI 83–99%), NPV of 99.3% (97.9–99.9%), specificity of 77% (73–80%), PPV of 26% (20–34%), and TNR of 71% (67–75%). In patients with gross hematuria (n=267) vs microhematuria (n=320), Triage Plus had sensitivity of 97% vs 89%, specificity of 76% vs 77%, PPV of 34% vs 19%, NPV of 99.4% vs 99.1%, and TNR of 68% vs 73%, respectively.

4-Conclusions
Cxbladder Triage Plus demonstrated clinical validity in this VA population with gross hematuria or microhematuria, with high sensitivity and specificity. These findings indicate that Triage Plus may be safely used to rule out or detect UC in patients with hematuria.

Source of funding: Pacific Edge Diagnostics, Ltd.

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2025 USAV POSTER PRESENTATIONS

POSTER #1

MR IMAGING AND PATHOLOGIC CHARACTERISTICS OF PIRADS 4 LESIONS PROSPECTIVELY IDENTIFIED AS PROSTATE CANCERS ON BIPARAMETIC PROSTATE MRI

Matthew Antonellis[1*], *Josh Moosikasuwan, MD*[2], *Chitiarpa Amatawet, MD*[1*], *Sawania Christolin*[1*], *Jonathan Wallach, MD*[2],*Nicolas Karanikolas, MD*[2], *Jeffrey Weiss, MD*[1], [1]SUNY Downstate Health Sciences University, Brooklyn, NY, [2]Brooklyn Veterans Administration, Brooklyn, NY

Presentation to be made my Mr. Matthew Antonellis

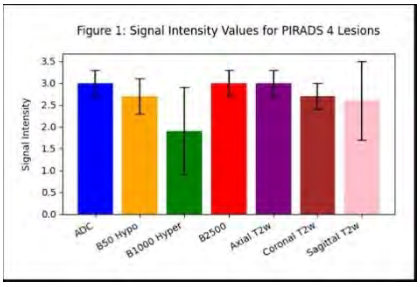
INTRODUCTION AND OBJECTIVE: Prostate cancer (PCa) is a major health concern, with early, accurate detection key to effective management. PIRADS is commonly used to assess prostate lesions and stratify risk for csc. PIRADS 4 lesions fall into a gray zone, often needing further evaluation to confirm clinical relevance. This study aims to prospectively identify PIRADS 4 lesions as clinically significant cancer (csc) via bpMRI and analyze their MR imaging and pathology features. By refining PIRADS 4 criteria, we aim to improve diagnostic accuracy and outcomes in PCa management.

METHODS: Biparametric prostate MRI scans (3-plane T2w, 18 cm FOV axial DWI B50/B1000 w/ ADC map, 16 cm FOV axial B2500) from a single healthcare system over 13 months (Feb 2023- Feb 2024) were assessed using PIRADS and a dichotomous system. Lesions were scored for PIRADS and marked as csc (“c”) or not. Location, size, and signal intensities on axial, coronal, sagittal T2w, native axial DWI B50, B1000, B2500, and ADC maps were evaluated for PIRADS 4 + “c” lesions in biopsy-naive pts. Signal intensity was rated on a 4-pt scale (0-3). Potential pseudolesions (e.g., posterior midline, linear, wedge-shaped, extruded BPH nodule) were identified. Radiology-pathology correlation was performed.

RESULTS: 330 prostate MRIs with PIRADS scores were identified, with 82 PIRADS 4 (25%). 20 of 82 PIRADS 4 were also reported as “c”; 16 of these 20 were biopsy-naive. All 16 lesions were in the peripheral zone, size: 11±3 mm (range 4-14). Signal intensity values: ADC: 3 (all markedly hyperintense); B50 hypointensity: 2.9±0.4 (range 2-3); B1000 hyperintensity: 1.8±1.0 (range 0-3); B2500: 3 (all markedly hyperintense); axial T2w: 3 (all markedly hyperintense); coronal T2w: 2.9±0.3; sagittal T2w: 2.6±0.9. No pseudolesions were suspected. 14 of 16 pts underwent biopsies; all had ≥ Gleason 3+4 cancer (0% false positives, 100% PPV and specificity).

CONCLUSIONS: PIRADS 4 lesions can be prospectively identified as csc on bpMRI. Although T2w images are not part of PIRADS criteria for peripheral lesions, marked hypointensity on T2w can help identify csc. Using multi-planar T2w and axial DWI images, along with evaluating potential pseudolesions, improves accuracy in dichotomous evaluation and reporting. This approach complements the probability-based PIRADS system, adding value to PCa diagnosis and management.

Source of Funding: None



POSTER # 2

URINARY RETENTION IMPROVEMENT FOR LARGER PROSTATES THROUGH REZUM

Authors: Om V Sakhalkar, BS, Stacy R Bedore*, PhD, Luke G Scanlan, BS, F. Pearce Kudlata, BA, Joshua van der Eerden, BA, Thomas E. Dykes, MD, Martha K Terris, MD, FACS, Pablo J SantaMaria, MD, FACS

Augusta, Georgia. Medical College of Georgia at Augusta University. Presentation to be made by Dr. Stacy Bedore.

Funding: none

Introduction and Objectives: Rezum is a minimally invasive procedure utilizing water vapor thermal therapy to ablate prostate tissue in patients with lower urinary tract symptoms from benign prostatic hyperplasia. Currently, Rezum is indicated for prostate volume < 80 grams with an evidence level Grade C. However, it can be offered off-label to those with prostate volume > 80 grams who are not candidates for other surgical therapies. This single institution study aims to assess the impact of Rezum on International Prostate Symptom Score (IPSS), bother score, and urinary retention in patients with prostate size either within or above current standards.

Methods: A retrospective chart review was completed for patients who underwent Rezum at our institution in 2022 and 2023. Data was collected regarding prostate volume, IPPS, bother score, and urinary retention, as measured by urinary catheter requirement, pre and post procedure. Statistical analysis used 2-tailed T-test.

Results: Thirty-seven patients underwent Rezum at our institution during the study period, 23 with prostate volume < 80 grams and 14 with prostate volume > 80 grams. Twenty-six had recorded IPSS and/or bother scores. Of these, improvements to scores were seen in 63% of patients with prostate volume < 80 grams ($p<0.01$) and 44% with prostate volume > 80 grams (not statistically significant; $p=0.0743$). Statistically significant resolution of urinary retention was observed in 91% of patients with prostate volume < 80 grams ($p<0.0001$) and 83% with prostate volume > 80 grams ($p<0.0001$).

Conclusions: In our study, regardless of prostate volume, improvements were seen in urinary retention, IPSS, and bother scores. Although statistically significance was not reached in IPSS and bother score improvement in those with prostate volume > 80 grams. Nonetheless, off label use of Rezum may provide therapeutic benefit to those with prostate volumes greater than current recommendations. Further data collection and research is indicated to evaluate the impact of Rezum on patients with prostate volumes > 80 grams.

POSTER # 3

PREVALENCE AND PHENOTYPE OF LOWER URINARY TRACT SYMPTOMS (LUTS) IN PATIENTS WITH FIBROMYALGIA

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Source of Funding: None

Introduction and Objectives: Fibromyalgia (FM) is a chronic condition marked by widespread pain, fatigue, and cognitive dysfunction, often accompanied by a host of other symptoms that make its management and understanding particularly challenging. Among veterans, the prevalence of FM is notably higher, with studies reporting rates as high as 17%. Despite this, the connections between FM and other conditions, such as lower urinary tract symptoms (LUTS), remain poorly understood. This study aims to bridge this gap in understanding by characterizing the prevalence, phenotype, and common comorbidities of LUTS in patients with FM.

Methods: A retrospective observational study was conducted using electronic medical records of 440 female patients diagnosed with FM at a single institution between January 1, 2018, and January 1, 2024. Patients were evaluated for LUTS diagnoses, including interstitial cystitis, overactive bladder, and stress incontinence, alongside comorbidities such as irritable bowel syndrome (IBS), anxiety, and depression. Multivariate analyses were performed to assess predictors of LUTS subtypes.

Results: LUTS were identified in 32.5% of FM patients. Anxiety and IBS were significantly associated with LUTS (OR = 4.78; OR = 8.16, $p < 0.001$). Stress urinary incontinence (SUI) was present in 17.05% of patients, falling between survey-based and ICD-confirmed prevalence rates in the general population. Interstitial cystitis (IC) was diagnosed in 2.95% of FM patients, higher than the estimated general population prevalence, suggesting a potential pathophysiological link. Overactive bladder (OAB) was observed in 6.8% of patients, with anxiety as a significant predictor (OR = 5.98, $p < 0.001$).

Conclusion: This study highlights a substantial burden of LUTS in FM patients, with significant associations with anxiety and IBS. The findings underscore the need for a multidisciplinary approach to address these comorbid conditions, which may alleviate LUTS symptoms and improve patient outcomes.

[redacted]

Table 2: Significant Results from Multivariate Analysis for Patients with ANY LUTS Condition

Variable	OR	Lower CI	Upper CI	p-value	Bonferroni-p
const	0.109	0.063	0.189	2.66×10^{-15}	2.66×10^{-15}
IBS	8.155	4.511	14.741	3.72×10^{-12}	1.86×10^{-11}
HTN/HLD/CAD	1.435	0.882	2.334	0.146	0.730
Obesity	1.376	0.803	2.360	0.246	1.000
DEPRESSION	1.521	0.919	2.517	0.103	0.515
ANXIETY	4.783	2.878	7.949	1.55×10^{-9}	7.73×10^{-9}

[redacted]

POSTER # 4

SUBCAPSULAR ORCHIECTOMY, A FORGOTTEN BUT EFFECTIVE FORM OF ANDROGEN DEPRIVATION FOR PROSTATE CANCER PATIENTS

Introduction and Objectives:

Prostate cancer is one of the most prevalent malignancies worldwide, with androgen deprivation therapy (ADT) being a cornerstone in managing disease progression. Surgical castration, particularly subcapsular orchiectomy, offers a financially viable alternative to chemical castration particularly in those patients who live in rural areas or have issues with transport. While rarely used in the United States in the 21st century, it was originally developed in Chicago, Illinois. First introduced by Dr. Leander Riba in 1942 as a method to achieve castration-level testosterone suppression with the avoidance of the “empty scrotum”, subcapsular orchiectomy involves the removal of seminiferous tubules and leydig cells, while preserving the testicular capsule. This research explores the historical context, technical details, and current clinical relevance of subcapsular orchiectomy, which may present a less psychologically disruptive alternative to total orchiectomy for prostate cancer patients.

Methods

A mix of primary and secondary source historical material was reviewed in the preparation of this manuscript. Data on testosterone suppression, postoperative complications, and quality of life have also been analyzed across various trials to quantify subcapsular orchiectomy’s efficacy, historical utilization, and current adoption. Multiple clinical trials have also been reviewed for the benefit of comparing the efficacy of subcapsular orchiectomy to total orchiectomy and chemical castration.

Results

Subcapsular orchiectomy has been demonstrated to achieve castration-level testosterone suppression comparable to total orchiectomy and chemical agents. In a randomized control trial involving 64 men, both simple and subcapsular orchiectomy showed similar biochemical responses, with testosterone levels reaching castrate levels within 6 hours post-surgery. Cost effectiveness is also noted as Paul et al in 2022 showed that Median and mean surgical charges were $13,000 and that by 38 weeks following treatment initiation of ADT, 50% of chemical ADT patients had surpassed surgical charges, with 95% at 2 years. Moreover, subcapsular orchiectomy may offer psychological and cosmetic advantages, as patients retain a normal scrotal appearance. However, some risks and complications are present, including anesthetic risks, reoperation rates, and inability to have intermittent ADT.

Conclusions

Despite its initial invention in the United States, subcapsular orchiectomy's adoption has lagged behind other countries, particularly in Europe, where it accounts for over 20% of orchiectomies. Subcapsular orchiectomy remains a safe, cost-effective, and effective alternative to total orchiectomy particularly for those individuals who desire a cosmetic outcome and have trouble with transport or who live in rural areas. Given its efficacy in testosterone suppression and reduced psychological impact, it should be considered a viable option for surgical ADT in prostate cancer patients concerned about cosmesis and may be beneficial for many members of the veteran community. Further research and awareness of this surgery may enhance its utilization in clinical practice.

POSTER # 5

DUAL BALLOON CATHETER TO REDUCE CATHETER-RELATED COMPLICATIONS, RESULTS OF A PROSPECTIVE, SINGLE-CENTER, RANDOMIZED CONTROLLED TRIAL

Onuralp Ergun M.D.[1,2], Ahmet Gudeloglu M.D.[3], Richard Mendelson PhD.[4], Sophia Rodriguez MA[5], Alana Anthony MA[5], and Sijo Parekattil M.D.[5]
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Introduction and Objective

An increasing number of veterans require Foley catheterization for conditions such as acute urinary retention, neurogenic bladders, postoperative management, or strict input and output monitoring. The Foley catheter, introduced in the late 1930s, remains one of the most widely utilized devices in the medical setting. However, complications associated with Foley catheter use have been well-documented and contribute to significant healthcare costs. A novel dual-balloon catheter, Duette™ (Poiesis Medical LLC, USA), has recently been developed to reduce these complications. This study aims to compare the short-term complication rates between these two catheters (Duette vs Foley as the control group).

Methods

We conducted a prospective randomized controlled trial. After receiving institutional review board approval, we enrolled 63 patients who underwent REZUM procedure for benign prostatic hyperplasia (BPH) and got catheterized postoperatively between May 2022 and January 2023. Patients who consented to the study were randomly assigned to either the standard foley catheter (n=31) or the novel Duette catheter (n=32). The catheters stayed in for approximately a week. Catheter-related adverse events were assessed post-operatively with a patient-centered questionnaire. Baseline characteristics like pre-op prostate size, post-voiding residual volume (PVR), and international prostate symptom scores (IPSS) were also evaluated.

Results

Baseline characteristics (age, prostate size, catheter size, length of dwell) between the Duette and Foley catheter were comparable. The incidence of bladder spasms was markedly lower in patients using the Duette catheter. Statistically, the reduction in bladder spasms with the Duette was significant (p=0.037), with 84% of Duette patients experiencing none or only occasional mild spasms, compared to 67% in the Foley group. The other measured outcomes—such as the necessity for re-catheterization, incidences of urine leakage, hematuria, infections requiring antibiotics, suprapubic tenderness, and catheter occlusion—did not differ significantly between the two groups. Notably, the rate of premature catheter removal was equivalent, with two patients from each group having their catheters removed earlier than planned.

Conclusions

This study demonstrates that the novel dual balloon catheter is a safe and feasible alternative to the standard Foley, with the main advantage being fewer and milder bladder spasms without increasing other risks associated with catheter use. The results reveal a promising adverse event profile, which could suggest a reduction in healthcare costs. Further trials involving more patients and more disciplines are warranted to confirm these findings.

POSTER # 6

KARA-NOT-OKE: DELAYED PRESENTATION OF RENAL PSEUDOANEURYSM AFTER FALL.

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Presentation to be made by Dr. Gibson.

Introduction

We report a case of renal pseudoaneurysm which presented 6 weeks following AAST grade IV renal trauma.

Case

The patient is a 22-year-old Active-Duty male with isolated AAST grade IV right renal injury following ground level fall onto a bench while singing karaoke. The kidney was shattered with sustained perfusion to upper and lower moieties. As of 1 day post-injury (PI), he was managed by maximal drainage with a right ureteral stent and foley catheter He developed a urinoma and had drains placed at 2 and 3 weeks PI (WPI). Four WPI, patient was seen for the first time at Madigan. He was seen in clinic with up to 500cc light pink daily total drain output with a plan to evaluate for persistent urine leak with retrograde pyelogram at 6 WPI. At 5 WPI, he presented to the emergency room with new hematuria and a non-draining catheter.

He reported hematuria and increased bloody drainage from his drains that morning without obvious inciting event. His hematuria progressively worsened over the next few hours and his catheter stopped draining. In the emergency room, he reported lightheadedness, abdominal pain, and right flank pressure. Initially tachycardia resolved without intervention. His hemoglobin and hematocrit were stable at 9.2/29, creatinine at baseline. CT demonstrated intravesical clot burden, stable perinephric fluid collections, no contrast extravasation from collecting system. He had suprapubic fullness, drains with thin dark fluid and new strikethrough on dressings. 50cc clot was irrigated from bladder. Drains were flushed with return of light red fluid. CT angiogram revealed pseudoaneurysm in lower right kidney moiety. H/H slowly down trended to 7.9/26 while awaiting IR embolization which was performed on hospital day 3. Patient discharged same day. He was finally without evidence of urine leak and liberalized of all drains 15 WPI.

Conclusions

Pseudoaneurysm is a vascular complication which can follow blunt renal trauma. It results from injury to the renal artery which leads to contained hemorrhage outside the arterial wall. They can be unstable, grow over time, or rupture which can result in life-threatening hemorrhage. Most commonly, pseudoaneurysms present within the first two weeks of injury with gross hematuria and flank pain. Treatment is primarily with endovascular techniques, escalating to surgical treatment if endovascular treatment fails.

POSTER # 7

ATTITUDES TOWARDS ANTIBIOTIC PRESCRIBING AND AWARENESS OF ANTIMICROBIAL RESISTANCE IN AMERICANS AND CANADIANS

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VA Boston Healthcare System, Boston, MA
Presentation to be made by Dr. Helrich

Introduction and objectives: Antimicrobial resistance (AMR) is one of the greatest global health threats of modern medicine. While the World Health Organization and others have launched public awareness campaigns, it remains unclear what the general public knows about the topic. Through a social media survey effort, we sought to measure attitudes towards antibiotics and knowledge surrounding AMR and antibiotic development, emphasizing urinary tract infections. By utilizing both Canadian and American platforms, we also looked for any differences in perceptions and awareness between respondents managed within these two medical systems.

Methods: A 53-item online survey was created and shared by the authors on Facebook, Instagram, X (formally Twitter), LinkedIn, email and text. Demographics, job within healthcare, infection history, and AMR and antibiotic development attitudes were queried. We applied linear regression analyses to determine relationships between various subgroups within the cohort. A brief educational presentation was included at the end.

Results: The response rate to date includes 229 participants, with an average age of 51 years (range 18-87 years). Demographic information is included in the Table. The majority of respondents were caucasian (81%) and female (76%), with 21% working in healthcare. Trust in medical science was no different between Canadians and Americans (p = 0.66), employment in healthcare or not (p=0.94), or prior history of infections requiring antibiotics or not (p=0.90); however, right wing political affiliation was less trusting (p=0.004) as compared to the left. While 29% of those in healthcare were unaware of the AMR crisis, healthcare workers are overall more aware of limited new antibiotic development (p=.003). Citizenship did not impact awareness of AMR (p=0.36), nor did history of infection requiring antibiotics (p=0.64). Those who have required antibiotics are more likely to feel the antibiotic crisis will affect them (p=0.0002), but this does not impact their willingness to pay a tax to support antibiotic development (p=0.51), nor did income level (p=0.50).

Conclusions: Early responses reveal that campaigns launched by global organizations to disseminate information and educate the public about AMR continue to fall short, even within healthcare. Targeted public efforts are critical to building awareness, slowing the progression of AMR, and engaging the general public towards behaviors that support the preservation of antimicrobial therapy for generations to come.

Source of funding: None

	No.	%
Survey respondents	229	100
Female	175	76
Male	38	17
White	185	81
Combined household income ≥$150,000	134	59
College degree or further level of education	176	77
High school diploma or further level of education	213	93
Identify as politically right	34	15
Identify as politically left	111	48
Trusting of the scientific community	209	91
Work in the medical field	48	21
Had an infection requiring antibiotic therapy in the last 2 years	93	41
Had a urinary tract infection requiring antibiotics in the last 2 years	46	20
Had a urinary tract infection and attempted alternative therapy prior to consulting with a physician	35	15
Feel they should have easier access to antibiotics	44	19
Feel a lack of effective antibiotics would not affect them	22	10
Think antibiotics in development will benefit current and/or future generations	199	87
Would pay a tax on antibiotics if funds benefited future drug development	68	30
Have at least heard of antimicrobial resistance	184	80
Do not feel they play a role in preventing microbial resistance	53	23
Do not feel that society can prevent antimicrobial resistance	62	27
Are not aware that few new antibiotics are being developed	132	58
Learning through the survey that few new antibiotics are being developed alters their opinion on use of antibiotics	54	24
Would utilize a vaccine in order to prevent urinary tract infections, if available	134	59
Would be less likely to utilize a vaccine to prevent urinary tract infections after events of the COVID-19 pandemic	23	10

POSTER # 8

SHORTAGES AND SUPPLY DISRUPTIONS FOR KEY THERAPIES FOR TESTICULAR CANCER AND OTHER MALIGNANCIES

Thomas J. Hwang, MD; Gabriel Brito*; Chong-Xian Pan, MD; Timothy N. Clinton, MD*; John Ernandez, MD*; Lori B. Lerner, MD*

Boston, MA; Presentation to be made by Dr. Hwang

INTRODUCTION AND OBJECTIVE:
In recent years, national shortages of key chemotherapy agents have resulted in delayed or deferred treatment for patients with cancer. Virtually all centers surveyed by the National Comprehensive Cancer Network (NCCN) reported short supply of at least one chemotherapy agent. Treatment of testicular cancer, which relies on a chemotherapy backbone comprising older products, may be particularly susceptible to supply disruptions. We evaluated the prevalence of shortages and supply disruptions for cancer drugs recommended in NCCN guidelines for testicular cancer and other malignancies at a national level as well as reported in the VA system.

METHODS:
We extracted all unique generic drugs included in NCCN guidelines for testicular cancer as well as all other (61) cancer clinical practice guidelines. Shortage status was determined from the US Food and Drug Administration's public registry of drug shortages, and supply disruption status from the American Society of Health-System Pharmacists. VA shortage status was obtained through review by VA oncology pharmacists. Follow up was through September 2024.

RESULTS:
There were 10 generic drugs included in NCCN's testicular cancer guidelines, of which four had a recent or ongoing shortage or supply disruption (bleomycin, carboplatin, cisplatin, and paclitaxel) and all four had shortage or supply disruptions in the VA. A further 77 unique generic drugs were included in at least one of NCCN's 61 other cancer clinical practice guidelines. Of these, 14 (16.1%) drugs were reported to be in active shortage by the FDA, 26 (29.9%) had reported active supply disruptions, and 33 (37.9%) had a recent shortage or supply disruption within the past two years. Of the top 10 cancer drugs most cited in clinical guidelines, 6 (60%) were subject to recent shortages or supply disruptions, compared with 35.1% of the remaining drugs.

CONCLUSIONS:
A significant proportion of NCCN guideline-recommended therapies for testicular cancer and other malignancies was subject to shortages or supply disruptions in the past two years. Ongoing federal efforts to prevent cancer drug shortages could include incentives for adequate essential medicine supply by the VA and health systems.

POSTER # 9

A COMPARISON OF RACIAL AND SOCIOECONOMIC DISPARITIES IN PROSTATE CANCER-SPECIFIC MORTALITY IN THE VETERANS ADMINISTRATION TO OTHER HEALTH SYSTEMS

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Character count: 2263/2280

Introduction and Objective: Racial and socioeconomic disparities in prostate cancer (PCa) mortality are attenuated in the Veterans Health Administration (VHA), suggesting that VHA health systems-wide practices to promote equal access and quality could narrow disparities observed in health care settings outside of the VHA. However, earlier studies either relied on aggregated statistics, or only provided results from within the VHA. We estimated and compared the magnitude of racial and socioeconomic disparities in PCa mortality among patients who were diagnosed and sought care in the VHA vs outside of the VHA.

Methods: This cohort study included men diagnosed with PCa in 12 states between 2009-2015 and followed through December 31, 2018 to maximize data availability across cohorts. The Multilevel Tumor Registry for Oncology (METRO) was derived from state cancer registries, while the VHA cohort was derived from the VHA Multi-OMICS analysis Platform for Prostate Cancer (VA-MAPP) database. We constructed a Census Tract-level neighborhood socioeconomic status (nSES) index appended to participants' residential address at year of diagnosis. We estimated cause-specific hazard ratios from Cox models adjusting for sociodemographic factors and clinical stage. Q-statistics were calculated to evaluate heterogeneity in racial and nSES disparities between METRO and VHA.

Results: There were 63,976 VHA participants (3,995 PCa deaths) and 396,293 METRO participants (27,677 PCa deaths); VHA participants were older (mean age: 71.3 vs 66.2), but median follow-up was similar (68.5 vs 66.1 months). The NHB-NHW disparity in PCa mortality was greater in METRO (aHR 1.50, 95% CI: 1.45, 1.55) compared to VHA (aHR 1.16, 95% CI: 1.06, 1.27, Q-statistic $P = 0.0001$). Similarly, the disparity comparing nSES quintile 5 (most advantaged) to quintile 1 (least advantaged) was greater in METRO (aHR 0.67, 95% CI: 0.65, 0.70) compared to the VHA (aHR 0.91, 95% CI: 0.82, 1.01, Q-statistic $P<.001$).

Conclusion: Racial and socioeconomic disparities in PCa mortality were attenuated in patients treated within the VHA compared to other health systems. Learning from VHA practices for patient management and applying these more broadly could attenuate population-wide disparities in PCa mortality.

Sources of funding: Research support for the investigators include National Institutes of Health (5P50CA092131, R01 PAR-20-077, IPG; K01ES035734 HSI); US Department of Defense (W81XWH211075, IPG); Prostate Cancer Foundation (PCFCHAL2202; PCF17CHAL04, IPG); Prostate Cancer Research, UK (HSI, TRR), Jean Perkins Foundation (IPG), STOP Cancer Foundation (IPG); and VA ORD CSR&D (IPG)

POSTER # 10

IMPACT OF AMNIOTIC MEMBRANE ALLOGRAFT APPLICATION DURING RADICAL PROSTATECTOMY ON DEVELOPMENT OF BLADDER NECK CONTRACTURES

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Presentation to be made by Dr. Ma

Introduction and Objective:
Human amniotic membranes (HAMs) have been recognized to facilitate tissue repair and minimize scar formation. Recent studies suggest that the placement of HAMs over the neurovascular bundle (NVB) during robot-assisted radical prostatectomy (RARP) may improve continence and potency. However, the role of HAMs on post-op complications has not been well described. We aim to elucidate the role HAMs in the development of bladder neck contractures (BNC) following RARP.

Methods:
We performed a retrospective cohort analysis of veterans who had undergone RARP at our VA between July 2022 and June 2024. Patients were followed for at least 6 months post-op. For the RARP+HAM group, a cryopreserved HAM allograft was draped over the NVB and secured around the urethrovesical anastomosis. Charts were analyzed for technique, pathology, and post-op complications including diagnosis of BNCs.

Results:
84 patients were identified (42 RARP, 42 RARP+HAM) within our criteria. Average pre-op PSA of the RARP group was 9.7 (7.7 of RARP+HAM group, $p = 0.14$, t-test). 45.2% of RARP and 19% of RARP+HAM received lymph node dissections. All patients had watertight anastomoses and the majority had bladder neck spare. 66.7% of RARP (vs 95.2% of RARP+HAM) had partial or total nerve spare. The final pathology for RARP patients was 57.1%, 28.6%, 2.4%, and 11.9% as grade group 2, 3, 4, and 5 prostate cancer, respectively (vs final pathology for RARP+HAM patients demonstrating 78.6%, 16.7%, 0.0%, and 2.4% as grade group 2, 3, 4, and 5 prostate cancer, respectively). Overall, 31% of RARP patients were pT2 (vs 73.8% of RARP+HAM patients). There was no difference in the incidence of post-op anastomotic leaks, and no significant difference was detected in the incidence of BNC (0 patients in RARP alone vs 2 patients in RARP+HAM, $p = 0.49$, Fisher's exact test).

Conclusions:
Our preliminary data describes a novel placement of a cryopreserved HAM allograft over the NVB and circumferentially around the urethrovesical anastomosis during RARP. The RARP+HAM group had more organ confined and less aggressive pathology, likely resulting in higher rate of nerve spare. We identified BNCs in 2 patients in the RARP+HAM group, however this was not statistically significant. Our data suggests an acceptable safety profile for use of HAMs during RARP with no difference in the development of BNCs post-op.

Source of Funding: None

POSTER # 11

HE PUT A RING ON IT: SINGLE CENTER REVIEW OF PENILE AND SCROTAL ENTRAPMENT CASES

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Presentation to be made by Dr. Edward Machen

Introduction and Objective

Penile and scrotal ring entrapment (PSRE) is a rare but potentially serious condition requiring prompt Urologic intervention. It occurs when a constricting object is placed around both the penis and scrotum, leading to impaired circulation, edema, bladder perforation, tissue necrosis, sepsis, and even death. Several techniques have been previously described for the removal of constricting devices both in the setting of the emergency room and the operating room. Due to the variable access to instruments and urologists across care centers, novel approaches to successfully removing constricting devices, especially those made of durable metals, must be made aware to health care personnel. This study aims to review three clinical presentations, management techniques, and outcomes of PSRE in a tertiary care setting such as the VA medical centers around the country, with particular emphasis on a novel technique using a Stryker drill commonly utilized by neurosurgeons.

Methods

Two cases of penoscrotal ring entrapment and one case involving a metal threaded nozzle piece were retrospectively reviewed. The cases were assessed based on duration of entrapment, clinical symptoms, and management techniques utilized. The various removal methods, including manual lubrication, use of ring cutter, bolt cutter, and Stryker neurosurgical drill with a burr drill bit, were evaluated for their efficacy and outcomes. Additionally, existing literature was reviewed to identify highly successful strategies employed by urologists to treat patients with penile, scrotal, and penoscrotal entrapment with rings of various materials.

Results

All three methods used to alleviate penile or penoscrotal entrapments were safe and effective, including the novel approach using a neurosurgical instrument to remove rings of a tough composition. Poor follow-up was noted for all three cases. Based on literature review a common methodology to treat penoscrotal ring entrapment includes the use of bolt cutters. Additionally, one example of an algorithmic approach to treatment of penoscrotal entrapment has been proposed.

Conclusions

Timely diagnosis and appropriate management of PSRE are crucial to prevent complications. The novel use of a neurosurgery drill with burr drill has now been demonstrated as a safe and effective means to remove metal rings around the penoscrotal junction. PSRE should be approached in a least invasive to most invasive fashion. Although creativity can be necessary when approaching rare cases, there is a need for a more algorithmic approach. Overall, there is a lack of follow-up in this patient population and educating the patient on common sequelae is paramount.

Conflicts of Interest: None
Source of Funding: None

POSTER # 12

COAGULOPATHIC AND RADIATION IMPACTS OF PROSTATE ARTERY EMBOLIZATION

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Presentation to be made by Dr. Reno P. Maldonado.

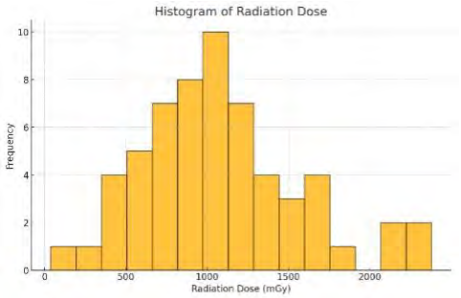
Introduction and Objective:
We sought to evaluate the significance of changes in various laboratory markers, including D-dimer and IPSS scores, before and after prostate artery embolization (PAE) and assess the association between changes in IPSS and prostate volume. Additionally, we aimed to analyze radiation exposure across the patient cohort in this relatively new procedure.

Methods:
A retrospective QI was conducted on patient data with complete pre- and post-PAE values for lab tests, IPSS scores, and radiation doses. Laboratory tests analyzed included D-dimer, PT, INR, PTT, fibrinogen, ESR, CRP, CBC WBC, and platelets (Plts). Statistical tests included paired t-tests for normally distributed data and Wilcoxon signed-rank tests for non-normal distributions. Correlation between IPSS changes and prostate volume was assessed using Pearson's correlation. The distribution of radiation doses was visualized (Figure 1).

Results:
Analysis of 43 complete pre- and post-PAE D-dimer pairs revealed significant changes (Wilcoxon test, $p = 0.00007$). Other significant changes were observed for fibrinogen ($p = 0.0015$), PTT ($p = 0.0078$), and Plts ($p = 0.0096$). IPSS scores also showed significant improvement post-PAE (21.7 to 13.0, paired t-test; $p = 0.0004$). A trend towards prostate volume predicting IPSS change was found, though not significant ($p = 0.1504$). Analysis of radiation doses across 59 patients yielded an average dose of 1074.70 mGy (SD = 496.17 mGy) (Figure 1). Using the NCIRF 2.0 software, the calculated ERD was 55.9 mSv in the median patient.

Conclusions:
Significant changes in select lab markers (D-dimer, fibrinogen, PTT, Plts) post-PAE were seen, indicating significant impact on coagulation pathways, the impact of which is unknown. The relation of IPSS changes and prostate volume invites further exploration. The radiation dose analysis shows a wide distribution but at doses that may be concerning in younger patients. Continued research is needed to confirm findings, explore clinical implications, and assess the balance of unique risks and benefits of this procedure.

Source of funding: None



POSTER # 13

SEMEN PARAMETERS AND EXPOSURE RISKS IN MILITARY MALES (SPERMM)

Trevor J. Maloney DO, Ariel Dunn MD*, Edgar Villaruel*, Nora Watson PhD*, Michael Pane*, Dorota J. Hawksworth MD MBA, Trimble Spitzer MD*; WRNMMC, Bethesda, MD

(Presentation to be made by Dr. Trevor Maloney)

INTRODUCTION & OBJECTIVE:

Military members have unique environmental and occupational exposures and their influence on reproductive function is unknown. In this study, we describe frequencies of self-reported exposures and associations with semen parameters of men in the United States (US) Military Health System.

METHODS:

This cross-sectional study analyzes self-reported exposures and semen analysis parameters of men within the US Military Health System (aged 18-54) seeking fertility care. Men with a vasectomy, genetic infertility, and testosterone or hCG use were excluded. Demographics, medical history, job description, occupational exposures, and deployment history were collected. Semen analysis parameters were analyzed. Frequencies of patient characteristics were described and compared by abnormal semen parameter with relative risks for abnormality and contingency (mid-p) tests.

RESULTS:

A total of 291 patients completed the survey and 209 of those had at least one semen analysis parameter available. There were a similar proportion of respondents in the largest military branches; US Army (26.1%), US Navy (21.3%), and US Air Force (14.4%). Representation from officers (35.1%) and enlisted (36.1%) members was comparable. The majority of participants were Caucasian (58.8%) and worked office-based occupations (64.6%). Statistical significance was shown for abnormal total motile sperm count and tobacco use (RR 1.95; CI 1.18-3.20 p=0.02). No other significant associations between semen parameters and exposures were noted.

CONCLUSIONS:

This data highlights the potential impact of occupational exposures on military service members. Though this study identifies few significant associations between reported exposures and semen parameters, we believe continued research is necessary and encourage pre-deployment fertility counseling due to potential unidentified risks.

SOURCE OF FUNDING: None

POSTER # 14

CURRENT TRENDS IN THE MANAGEMENT OF URETHRAL STRICTURE DISEASE, 2000-2024: ANALYSIS OF A LARGE VETERANS AFFAIRS HEALTH DATABASE

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Presentation to be made by Dr. Mamachan

INTRODUCTION AND OBJECTIVE: Urethral Stricture Disease (USD) is a condition that can cause significant morbidity and often requires surgical or non-surgical interventions. This study aims to assess trends in the prevalence of USD and its treatment approaches within the VA healthcare system over the past two decades.

METHODS: We used the VA Informatics and Computing Infrastructure (VINCI) to access the medical records of 476,715 randomly selected male veterans from 2000 to 2024. Patients were identified using ICD-9 and ICD-10 codes, with urethroplasty as the primary endpoint, identified by CPT code 53400. Other treatments, including Direct Visual Internal Urethrotomy (DVIU; CPT 52276) and urethral dilation (CPT 53600), were also analyzed. Treatment trends were stratified by diagnosis year, comparing the periods 2000-2016 and 2017-2024.

RESULTS: A total of 63,810 veterans were diagnosed with USD during the study period, with 47,007 (73.7%) diagnosed between 2000-2016 and 16,803 (26.3%) between 2017-2024. Among them, 211 patients underwent urethroplasty. The percentage of patients receiving urethroplasty was higher in the earlier period (0.4%) compared to the later period (0.2%). In contrast, the use of non-surgical treatments like DVIU and dilation remained consistent across age groups. Patients who underwent urethroplasty were generally younger (median age 62) than those treated non-surgically (median age 71).

CONCLUSIONS: The data show a declining trend in urethroplasty procedures over the study period, which may reflect changes in management strategies or patient demographics, contrary to current AUA guidelines. Further research is needed to explore the factors driving the increased use of conservative treatments in USD management.

POSTER # 15

NATIONAL TRENDS IN VASECTOMY PROCEDURES IN THE VA HEALTH CARE SYSTEM DURING COVID AND DOBBS

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(Presentation to be made by Dr. Ashley Matthew)

Introduction and Objective:
Vasectomy is the only permanent contraceptive method for men, with its utilization influenced by socioeconomic factors and policies. Recent evidence suggests increased vasectomy rates among younger, single, and childless men during the COVID-19 pandemic and after the U.S. Supreme Court overturned *Roe v. Wade* in 2022. Anecdotal reports from the Richmond VAMC indicate a rise in vasectomy consultations and procedures, but national data on trends among Veterans remain limited beyond 2021. This study evaluates VA vasectomy trends from 2017 to 2023, examining the impact of the COVID-19 pandemic and federal policy changes. We hypothesize significant shifts in vasectomy rates influenced by demographic and geographic factors. Findings may guide resource allocation and care delivery for Veterans seeking permanent contraception.

Methods:
A retrospective review utilized the VA Informatics and Computing Infrastructure (VINCI) to query the Corporate Data Warehouse for vasectomy procedures (CPT code 55250) from 2017 to 2023. The cohort was stratified into three periods: (1) 2017–2019 (pre-COVID-19), (2) 2020–June 2022 (COVID-19/pre-Dobbs), and (3) July 2022–2023 (post-COVID-19/post-Dobbs). Demographic and geographic differences were analyzed, and frequencies of vasectomy procedures were compared across time groups in states with abortion restrictions versus states with protected or expanded access, as defined by the Center for Reproductive Rights.

Results:
From 2017 to 2023, over 39,000 Veterans underwent vasectomy. The mean age was 38.4 ± 1.71 (Time 1), 38.5 ± 0.84 (Time 2), and 38.6 ± 1.14 (Time 3). No significant age differences were observed across restricted and less restricted states, though a slight increase was noted in states with protected abortion rights ($p = 0.04$). No differences in vasectomy rates were observed between states with abortion restrictions and those with protected access across all time points. However, vasectomy rates declined significantly during the COVID-19 period and dropped further post-Dobbs ($p < 0.05$).

Conclusions:
Vasectomy rates among Veterans declined during COVID-19 and post-Dobbs, despite stable age demographics and a slight increase in protected-rights states. Contrary to prior studies showing increased vasectomy rates post-Dobbs, this trend was not seen among Veterans, possibly due to unique VA access-to-care factors. Further research is needed to optimize care delivery.

Source of Funding:
None

POSTER # 16

CONCOMITANT SURGERIES AT THE TIME OF HOLMIUM LASER ENUCLEATION OF THE PROSTATE (HOLEP)

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Presentation to be made by: Dr. Chloe Michel

Introduction and Objective

To date, most studies evaluating Holmium Laser Enucleation of the Prostate (HoLEP) are single center experiences. Additional procedures at the time of HoLEP tends to be an uncommon experience. We aimed to characterize the incidence of concomitant surgeries at the time of HoLEP using a large national dataset.

Methods

We performed a retrospective cohort study using a limited dataset from the TriNetX Research Network Database, which carries clinical data of 92 academic medical centers and health care organizations (HCO), with most of the data collection starting in 2007. We performed a search query between one year prior to and day of HoLEP to identify patients of interest. A total of 46 HCOs responded to our query.

The following ICD and CPT codes were utilized for our query: obesity (ICD E66); HoLEP (CPT 52649); perineal urethroplasty (CPT 53010); cystotomy (CPT 51040); ureteral stent placement (CPT 52332); laparotomy/diagnostic laparoscopy (CPT 49000/49320), bladder chemodenervation (CPT 52287); cystolitholapaxy (CPT 52317/52318); bladder tumor resection (CPT 52240/52250/52234/52235/52224); urethral dilation (CPT 1008396/52276/1008334/52281/1008395).

Results

Of the 12,603 patients that underwent HoLEP, 12% had a diagnosis of obesity in the year preceding surgery. The query revealed the following incidence of secondary surgeries at the same time as HoLEP: perineal urethroplasty (0%), cystotomy (0.1%), stent insertion (1.6%), bladder botox (1.1%), laparotomy (0.1%), cystolitholapaxy (7.1%), bladder tumor resection (2%), urethral dilation (0.2%).

Conclusion

Our data from a large national database of HCOs shows a low rate of secondary surgeries at the time of HoLEP. Notably, requirement for cystotomy in the case of adenoma extraction or laparotomy presumably in the case of bladder injury during morcellation were both very low.

Disclosures: None

POSTER # 17

CHALLENGES IN UTILIZING REAL WORLD DATA TO ASSESS RESOLUTION OF POST OPERATIVE INCONTINENCE FOLLOWING BENIGN PROSTATIC HYPERPLASIA SURGERY

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Presentation to be made by Dr. Mwafulirwa

Introduction and objectives: Real world data (RWD) captures occurrences in clinical practice outside of standard study designs, looking across practice types, environments, and experience levels. Proprietary companies access large databases and analyze RWD to produce real world evidence (RWE). We used RWE to assess post operative incontinence after surgical therapy for benign prostatic hyperplasia (BPH) to determine the ability of RWD to define types of incontinence, incidence, and time to resolution.

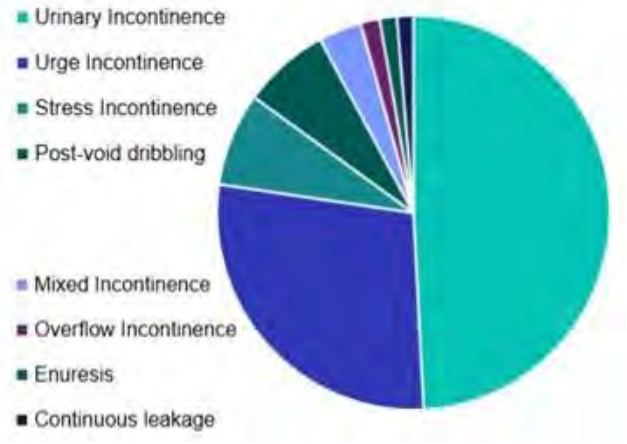
Methods: A retrospective cohort of electronic health records data compiled by Truveta from a collective of U.S. healthcare systems was utilized. The analysis included 97,970 men receiving surgical intervention for BPH between 2017-2024. The databases were searched for diagnosis and procedure codes, prescriptions, and supplies relating to incontinence. Resolution of post-surgical continence was inferred by the absence of incontinence codes or supplies for at least 2 consecutive encounters, or after a continence restoring procedure.

Results: Post operative incontinence occurred in 7.9% of patients. Figure 1 shows the distribution of incontinence diagnosis codes associated with the encounter and/or prescription. The majority were coded as “urinary incontinence” without further specification. When continence was specified, urge incontinence (UUI) was more common than stress (SUI). Interestingly, 88% of procedures for continence restoration were for UUI and only 12% for SUI. While the analysis could give rates of complications and negative outcomes, it was less reliable for assessing resolution, relying on the absence of coding or purchasing of supplies/medications. Further, reanalysis was needed several times to refine the data enough to attain meaningful and interpretable results.

Conclusions: Utilizing RWD is attractive as it identifies actual occurrences across a broad spectrum of clinicians. However, the reliance on how clinicians code is a major limitation of this research class. Without an ability to “scrub” medical records for unstructured information, resolution of certain BPH complications, such as incontinence, is difficult to measure. As such, clinicians rely on published results from single center/surgeon experience, which is not necessarily transferable to all urologists. While meaningful data can be obtained and used to guide practice patterns, the large number of treatment options available for BPH demands more granular reporting. Artificial intelligence and more refined analysis in database research will improve understanding of outcomes and better legitimize the use of RWD in BPH.

Source of funding: Boston Scientific Corporation; VA Boston Research Student Summer Institute

Figure 1:
ICD-10 Diagnosis Codes



POSTER # 18

REDUCING ISCHEMIA REPERFUSION INJURY IN RENAL CELLS USING EMODIN

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Presentation to be made by Dr. Harpreet Singh, MD

Introduction and Objective: With the increasing use of cross-sectional imaging, so has the diagnosis of incidental small renal. When feasible, nephron sparing surgery is the preferred treatment modality. Intraoperatively, the renal artery, vein, or both may be temporarily occluded to allow for extirpation of the mass. This occlusion produces an ischemic environment and thus predisposes the kidney to an ischemia-reperfusion injury (IRI). The degree of injury is affected by total ischemia time and as such surgeons attempt to minimize this time. Mannitol was previously thought to mitigate IRI, however, recent data suggests otherwise. Emodin is an organic anthraquinone that has previously been shown to reduce IRI in spermatogenic cells. Herein we describe the effect of Emodin on renal cells subjected to IRI.

Methods: An oxygen-glucose deprivation/reperfusion (OGD/R) was established using immortalized human kidney cells (HK-2). The cells were incubated for 20 hours in OGD/R or cobalt chloride at 600μM and then for another four hours in normal oxygen in C-DMEM/F12 with or without emodin at 30μM. DMSO at 0.1% was included as the vehicle control for emodin. Flow cytometry was used to measure apoptosis and real time PCR (RT-PCR) was performed to investigate expression of HIF1a, Bcl-2, BAX, Caspase 3, DUSP and NF-kb.

Results: Percent apoptosis and viability were detected on the flow cytometer. HK-2 cells were resistant to hypoxic OGD/R conditions but were injured in cobalt chloride (viability 85.9% from 92.1%). Reoxygenation with C-DMEM/F12+Emodin prevented that injury (92.1%). In HK-2 cells, +/- Emodin after cobalt injury increased expression of Bcl-2 (6.9x) and NF-kb (2.2x), no significant change in BAX, DUSP, Caspase or HIF1a.

Conclusions: In the preliminary data collected, Emodin was shown to have protective effects against OGD/R in immortalized human kidney cells as it has been previously shown in spermatogenic cells. RT-PCR also revealed modulation of the inflammatory response, which may be contribute to Emodin's protective effects. Testing and data collection remains underway to validate these initial results with plans to perform statistical analysis to assess for statistical significance.

Source of Funding: Madigan Army Medical Center Department of Clinical Investigations.

POSTER # 19

GERMLINE TESTING FOR RENAL CANCERS, HOW AGE, AND TUMOR CHARACTERISTICS AFFECT PATHOGENIC VARIANTS

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Medical University of South Carolina, Charleston, SC
Presentation to be made by Dr. Robert Smith, MD

I:

The current NCCN guidelines have many criteria for germline testing of individuals with renal tumors including family history, age, and tumor characteristics. As testing is recommended to our patients, we are often faced with questions asking frequency of pathogenic variants and how these variants affect care. We sought to explore how each of these guideline recommendations affect the rate of return of pathogenic variants among patients undergoing germline testing at a single institution.

M:

A retrospective chart review was conducted of all patients undergoing genetic testing within the urology department at a single institution. This data was maintained in a RedCap database. Data included age, race, cancer type, family history of cancers, other cancer diagnosis, and genetic test result. This data was sorted for patients with renal tumors and divided by age less than 46, tumor cell type, tumor grade, and tumor stage. Data was then compared between these subcategories.

R:

79 patients within our database underwent germline genetic testing for renal tumors. 18.2% of patients with renal tumors tested positive for pathogenic variants. 33 patients were below age 46 with 18.2% testing positive. Pathologic variants were found in 12.8 of clear cell, 14.3% of papillary cell, 20% of oncocytic, and 21% of other cell types. Tumors with grade group 1 had 0% pathogenic variants, 2 with 14.2%, 3 with 28.6% and 4 with 25%. When comparing tumor stage, t1 disease had 16.6% with pathogenic variants, t2 with 0%, t3 with 18.8%, and t4 with 0%. Multifocal tumors resulted in 22.2% pathogenic variants vs 16.4% in focal tumors. Across all groups, there were no statistically significant differences.

D:

With germline genetics in urology oncology growing rapidly, data collection and analysis will help to drive changes in the guidelines. This will also assist with patient counseling on likelihood of a pathogenic variant being uncovered though testing. While we have a small initial cohort of patients in our study, we plan to continue data collection to expand our knowledge of pathogenic variant likelihood based on character of renal mass, age, and family history. We suggest this information can help lead patient counseling and direct future guideline development for germline genetic testing.

Figure 1

Cell Type	total	positive	negative	percentage positive
Clear Cell	39	5	34	0.128
Papillary	14	2	12	0.143
Oncocytic	5	1	4	0.200
Other	14	3	11	0.214

Figure 2

Grade	total	positive	negative	percentage positive
1	3	0	3	0.000
2	27	4	23	0.148
3	14	4	10	0.286
4	4	1	3	0.250

Figure 3

Stage	total	positive	negative	percentage positive
t1	30	5	25	0.167
t2	6	0	6	0.000
t3	16	3	13	0.188
t4	6	0	6	0.000

Figure 4

	total	positive	negative	percentage positive
Focal	61	10	51	0.164
Multifocal	9	2	7	0.222

POSTER # 20

URETEROSCOPIC THULIUM VERSUS HOLMIUM LASER STONE FRAGMENTATION FOR RENAL AND URETERAL STONES: A COCHRANE REVIEW

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Introduction and objectives

Thulium fiber laser (TFL) represents a new addition to the endo-urological armamentarium with a number of theoretical advantages over the standard holmium:yttrium-aluminum-garnet laser (Ho:YAG) for stone treatment. If and how these technological advances translate into patient-relevant benefits remains uncertain. This is especially of interest for health systems with less abundant OR availability, such as the VA, where maximizing procedural efficiency is critical. Our objective was to summarize the current evidence comparing TFL to Ho:YAG.

Methods

Based on a published protocol, we performed a comprehensive search of multiple databases through 08/02/2024, for randomized controlled trials without restrictions by language or status. Two independent reviewers completed study screening, data extraction and risk of bias assessments in duplicate. Our primary outcomes of interest were stone-freedom, rate of secondary interventions, and major complications (Clavien-Dindo $\geq$3). We performed analyses in RevManWeb and rated Certainty of Evidence (CoE) by outcome using GRADE with predetermined thresholds for clinical important differences.

Results

We screened 1317 references at the title/abstract stage and 46 full-text records, ultimately including 24 studies (8 of which are ongoing). Between TFL and Ho:YAG, we found little to no difference in stone-freedom (RR 1.03; 95%CI 1.00-1.06; low CoE; from 0 to 51 more per 1000 patients being stone free with TFL). There was also little to no difference in secondary interventions (RR 0.53; 95%CI 0.23-1.22; low CoE; from 35 fewer to 10 more secondary interventions per 1000 patients with TFL), and little to no difference in major complications (RR 0.58; 95%CI 0.16-2.11; moderate CoE; from 11 fewer to 14 more major complications per 1000 patients with TFL). We found that TFL lithotripsy may have shorter procedure times compared to Ho:YAG (mean procedure time: 39.6 vs 42.3 minutes), however this may not be clinically important. Lastly, we observed little to no difference in rate of unplanned additional medical visits, minor complications, or ureteral stricture rate.

Conclusions: This is the first study to compare TFL versus Ho:YAG using the methodological rigor of a Cochrane Review. TFL and Ho:YAG may offer similar outcomes for stone-freedom, secondary interventions and major complication rates; TFL may yield slightly shorter procedure times. Our confidence was lowered due to common study limitations, inconsistency, and imprecision and we were limited in our ability to perform predefined subgroup analyses by stone location, size, and number.

Source of funding: None

POSTER # 21

THE FUTURE IS BRIGHT FOR WOMEN IN UROLOGIC ONCOLOGY: TRENDS OVER TWO DECADES

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Presentation to be made by Dr. Gabrielle Yankelevich

Introduction and Objective

The role of female surgeons in urology has been steadily increasing. We performed a contemporary review of American Board of Urology (ABU) case logs focused on oncologic procedures and evaluated the role of female surgeons over the past 2 decades.

Methods

Operative logs from ABU examinees from 2003-2023 for oncologic procedures performed on patients aged 18 years and older were analyzed. We identified open-approach (OA) and minimally invasive (MIS) radical nephrectomy (RN), partial nephrectomy (PN), radical nephroureterectomy (RNU), radical prostatectomy (RP), and adrenalectomy (RA) using CPT codes. Total case volumes by female surgeons as well as their reported fellowship training were recorded and tabulated. The counts and proportions of OA and MIS procedures were analyzed over time and by surgeon gender.

Results

From 2003-2023, 54,972 surgical procedures were reported to ABU with only 2.1% (1,127) being performed by female surgeons. Of these, 32.5% (366) were OA and 67.5% (761) were MIS. Despite the low overall composition of female-performed procedures, the number of surgeries performed by females increased over time (Figure 1A). Specifically, the number of cases rose from 0 in 2003 to 118 in 2022, with a peak in 2017 of 148 cases.

Among female surgeons, the proportion of MIS surgeries increased over time, going from 37.5% to 69.1% to 71.5% in year groups of 2003-2009, 2010-2016, and 2017-2023, respectively. Females versus males performed comparably for OA for RP, RN, and RA; however, females performed more open PN (44.2% vs 28%) and RNU (29.5% vs 19.3%) than their male counterparts. Moreover, the number of procedures performed by oncology-fellowship-trained females rose from 15 cases in 2003-2009 to 218 in 2017-2023 (Figure 1B).

Conclusions

Our analysis of over the last two decades of data submitted to the ABU indicates that the surgical volume of oncologic procedures by female urologists has been increasing. Moreover, women continue to integrate both open and minimally invasive approaches in the changing surgical landscape. These findings demonstrate increased contributions by female surgeons to the field urologic oncology.

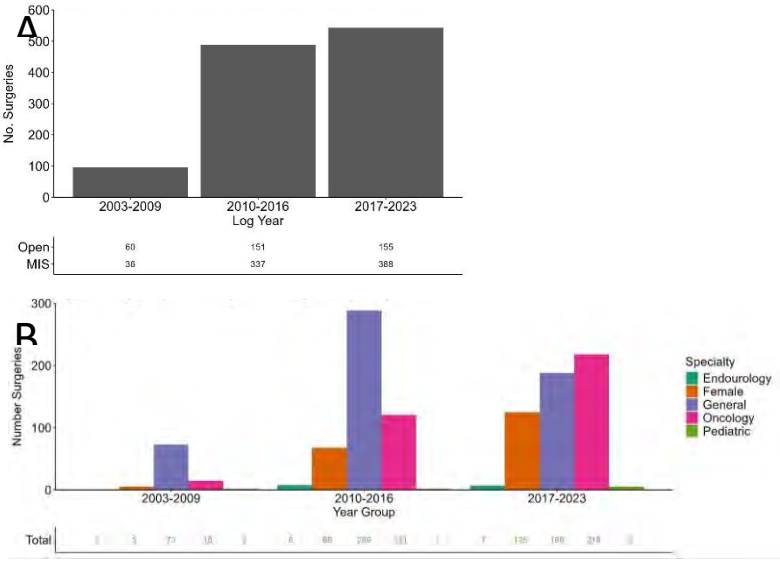

Figure 1. A: Procedures performed by female surgeons over time. B: Procedures performed by female surgeon's specialty over time

Source of Funding: None

POSTER # 22

DOES REQUIRING WRITTEN CONSENT FOR PROSPECTIVE ENROLLMENT LEAD TO SELECTION BIAS IN CHART-REVIEW STUDIES? RESULTS FROM A PROSTATE CANCER STUDY IN THE VETERANS AFFAIRS HEALTHCARE SYSTEM

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Source of Funding: None

INTRODUCTION AND OBJECTIVE

Although chart-review studies are typically performed using a waiver of written informed consent, only some institutional review boards (IRB) will approve such a waiver with prospective enrollment. In cases where prospective enrollment is not allowed, the requirement of written consent might introduce selection bias. We aim to determine whether patients providing written consent had different baseline characteristics and prostate cancer (PCa) risk compared to patients not providing written consent and enrolled under a waiver of written informed consent in chart-review studies.

METHODS

Using an IRB-approved protocol with a waiver of written informed consent and prospective enrollment, we identified and reviewed the charts of all patients scheduled for initial prostate biopsy from 2007-2012 and 2013-2021 at the Durham Veterans Affairs Health Care System (DVAHCS). During this time, nearly all patients scheduled for initial prostate biopsy at the DVAHCS were approached for enrollment into a separate minimal-risk prospective observational study protocol, which required blood collection and written consent. Herein, we compared patients who did and did not provide written consent to the blood collection protocol. Baseline characteristics were compared by written consent status. Multivariable and multinomial logistic regression was used to estimate the association between written consent status with overall, low-grade, and high-grade PCa risk.

RESULTS

We identified 1,238 (59% Black) patients providing written consent to the blood collection protocol and 964 (61% Black) patients not providing written consent but whose data were reviewed using the waiver of written informed consent protocol. Race was unrelated to written consent status (p=0.49). Patients providing written consent were accrued more recently (p<0.001), had lower PSAs (p<0.001), and had larger prostates (p=0.03). In multivariable analysis, participants providing written consent had a significantly lower risk of PCa (OR=0.41, 95%CI=0.31-0.54, p<0.001). When stratified by cancer grade, the inverse associations between written consent status and PCa risk remained consistent for both low-grade (OR=0.54, 95%CI=0.39-0.73, p<0.001) and high-grade PCa (OR=0.33, 95%CI=0.24-0.44, p<0.001).

CONCLUSIONS

Patients who provided written consent had different baseline characteristics and lower PCa risk and therefore might not accurately represent the full eligible population. To minimize selection bias, prospective enrollment using a waiver of written consent should be allowed in chart-review studies.

POSTER # 23

ESTIMATING THE CARBON EMISSIONS OF A SINGLE PSA TEST: RESULTS FROM A CRADLE-TO-GRAVE LIFE CYCLE ASSESSMENT

Hanna Zurl, MD

Introduction and objectives: The healthcare sector plays a significant role in climate change, accounting for about 5% of global greenhouse gas emissions. Comprehensive assessments of the environmental impacts of health services are essential to guide health policy changes. Prostate-specific antigen (PSA) testing remains one of the most commonly ordered urologic blood tests, but with concerns about overuse. In this setting, we sought to estimate the environmental impact of this commonly performed test, which remains unknown.

Methods: We performed a cradle-to-grave life cycle assessment to estimate carbon emissions from one PSA test. Data collection included primary data acquisition through laboratory site assessment, disassembly and weighing of materials, and secondary data collection from manufacturer's instructions and literature review. The boundaries of this study include the raw materials, production, and disposal of the blood draw equipment, the laboratory reagents, the laboratory consumables, and the power consumption of the analyzer. The primary outcome measures were greenhouse gas emissions reported in grams (g) of carbon dioxide equivalent (CO_2e).

Results: A single PSA test produces an estimated total of 189.7g CO2e. Of this total, the raw materials, production, and disposal of the blood draw equipment are responsible for 167.2g of CO2e, or 88.2%% of the emissions, while sample processing in the laboratory is responsible for 22.4g of CO2e, accounting for 11.8% of the total emissions. The emissions from a single PSA test are equivalent to the emissions from driving 0.5 miles with an average gasoline-powered passenger vehicle.

Conclusions: Herein, we report the first quantitation of a single PSA blood test. Avoiding inappropriate PSA testing is important to reduce low-value care while simultaneously decreasing environmental impact. Since PSA is a fundamental part of prostate cancer management, these results are valuable for future analyses of the environmental impact of different care pathways such as improved targeting of higher risk groups and less screening of men unlikely to benefit.

POSTER # 24

PSMA PET DETECTED DE NOVO METASTATIC PROSTATE CANCER IN AN EQUAL ACCESS HEALTH SYSTEM – DEFINING OPPORTUNITIES FOR EARLIER DETECTION

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Presentation to be made by Ms. Amana Liddell

Introduction and Objectives:

Given the lethal nature of metastatic prostate cancer, earlier detection has the potential to reduce the morbidity and mortality of the disease. As a first step in identifying earlier opportunities for detection, we examined the clinical characteristics and screening practices of veterans presenting with de-novo metastatic prostate cancer (mPCa) in the era of PSMA PET imaging.

Methods:

This retrospective cohort study utilized the VA Multi-OMICS Analysis Platform for Prostate Cancer (VA-MAPP) database and database views accessible by VA Research and Development-approved studies from the VA Informatics and Computing Infrastructure (VINCI) server. The study population included patients 75 years of age and younger diagnosed with de-novo metastatic prostate cancer between 2020 and 2023 who had a PSMA PET scan. Patients were categorized based on PSA values, screening practices, referral patterns, and prostate biopsy frequency.

Results:

125 patients met the inclusion criteria. Mean age at diagnosis was 68. Median PSA value taken nearest to diagnosis was 21.8 ng/ml (9.0, 40.3). 114 patients (91.2%) were diagnosed with prostate cancer on the initial prostate biopsy. 26 patients (20.8%) presented with an elevated PSA (>4 ng/ml) on their first lifetime PSA test. 3 patients were diagnosed with mPCa with a PSA < 4 ng/ml. 19 patients (15.2%) had a rapid increase of > 10 ng/ml in their PSA within 3 years prior to diagnosis. 17 patients (13.6%) were assessed to have had no opportunity for earlier detection given institutional and national guidelines were followed regarding PSA screening and prostate biopsies before mPCa diagnosis. We additionally identified 43 patients (34.4%) with potential opportunities for earlier intervention. Of these patients, 24 went more than 3 years between PSA tests. 19 patients showed a gradual rise in PSA while getting regular PSA screening at least once every 3 years.

Conclusions:

These findings are the first step in defining opportunities for earlier detection of de novo metastatic prostate cancer.

Source of Funding: Prostate Cancer Foundation (PCFCHAL2202)

POSTER #25

A CROSS-SECTIONAL SURVEY OF CLINICAL PRACTICE AND GUIDELINES ADOPTION FOR UROLITHIASIS PREVENTION

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Introduction:

We have found in the Veterans Health Administration (VHA) that while more than 90% of Veterans have a follow up visit within six months of stone surgery, only 8.8% completed 24-hour urine testing, 8.4% had a parathyroid hormone measurement, and 31.0% were prescribed a stone-related medication. For Veterans with an incident stone diagnosis, only 5.6% visited a nephrology clinic within six months of their diagnosis. Overall, urologists and nephrologists in the VHA are infrequently and variably involved in the care of patients after a urinary stone diagnosis. Our goal is to identify barriers to specialty stone care for Veterans at high risk of stone recurrence.

Methods:

This proposal details a cross-sectional survey aimed at evaluating the awareness, utilization, and opinions of primary care, nephrology, and urology providers regarding stone prevention guidelines. The proposed survey will thus engage nephrologists, urologists, and advanced practice providers to achieve two main objectives: (1) assess their awareness and application of current prevention guidelines; and (2) identify barriers that prevent wider and more uniform adoption of stone prevention strategies. Key areas of focus will include current guidelines usage, perceived barriers to implementation, and suggestions for overcoming these challenges.

Conclusions:

Urolithiasis presents a significant public health challenge, with considerable implications for healthcare costs and patient quality of life. By engaging a comprehensive range of providers in our survey, this proposal will pinpoint specific barriers to guideline implementation and propose strategies that enhance the uptake of effective prevention measures. Ultimately, this could lead to a substantial reduction in the incidence of urolithiasis, benefiting patients and healthcare systems alike.