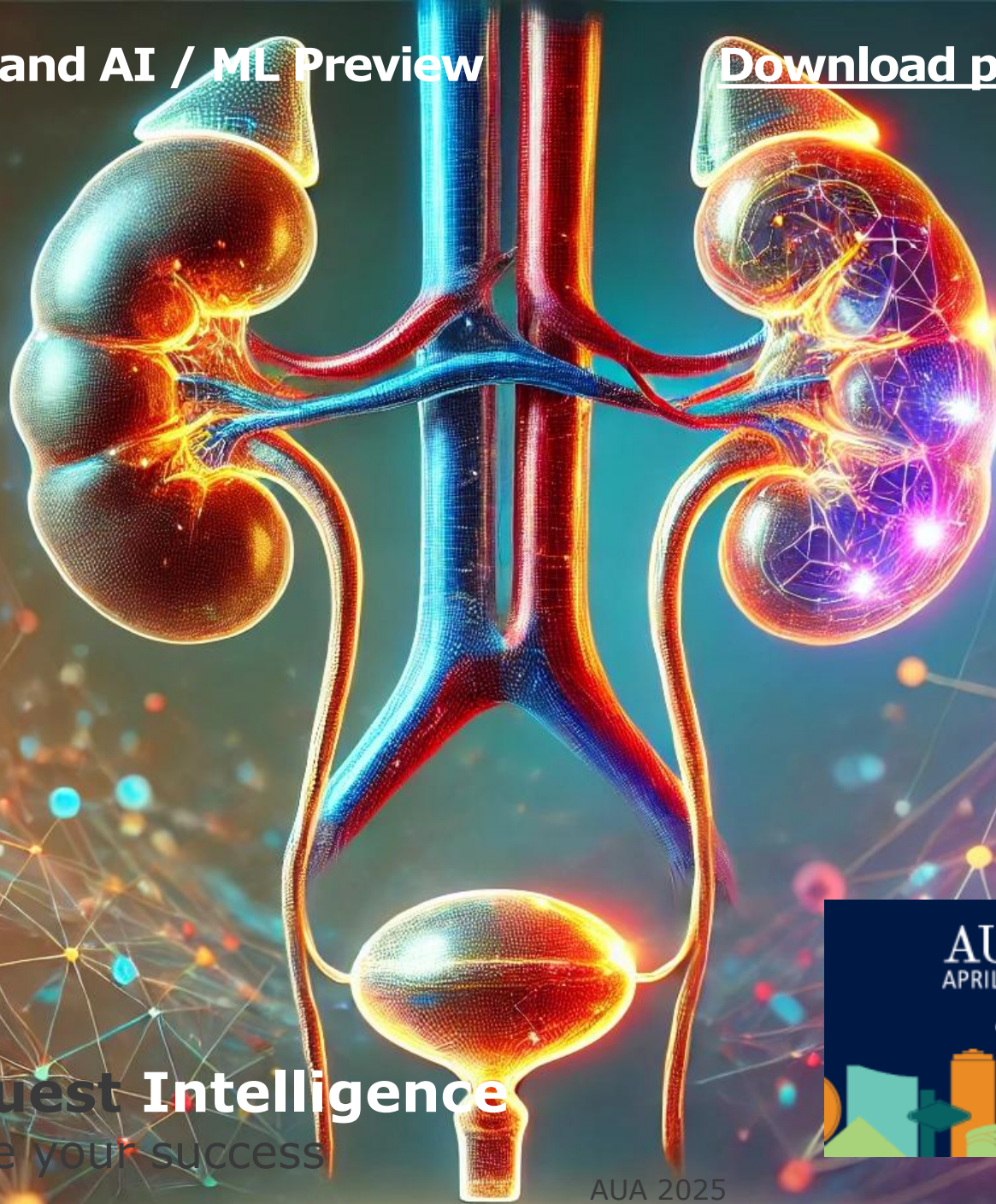




**LucidQuest Intelligence**  
Accelerate your success



# AUA 2025 Preview – Table of Contents

|                                                                             |                              |
|-----------------------------------------------------------------------------|------------------------------|
| • <a href="#"><u>General Overview and Conference Themes</u></a>             | <a href="#"><u>3-5</u></a>   |
| • <a href="#"><u>Noteworthy Scientific presentations at AUA'25</u></a>      | <a href="#"><u>6-54</u></a>  |
| • <a href="#"><u>Key Topics From Notable Presentations</u></a>              | <a href="#"><u>7-15</u></a>  |
| • <a href="#"><u>Focus of Key Industry Sponsored Sessions at AUA'25</u></a> | <a href="#"><u>16-19</u></a> |
| • <a href="#"><u>Notable Presentations at AUA'25</u></a>                    | <a href="#"><u>20-49</u></a> |
| • <a href="#"><u>Key Industry Sponsored Sessions Information</u></a>        | <a href="#"><u>50-54</u></a> |
| • <a href="#"><u>Noteworthy AI / ML Presentations</u></a>                   | <a href="#"><u>55-82</u></a> |
| • <a href="#"><u>Key AI / ML Themes</u></a>                                 | <a href="#"><u>56-61</u></a> |
| • <a href="#"><u>Key AI/ML Presentations at AUA'25</u></a>                  | <a href="#"><u>62-82</u></a> |
| • <a href="#"><u>Get in touch with LucidQuest</u></a>                       | <a href="#"><u>83</u></a>    |



# AUA 2025 – General Overview



- **Global Urology Advancements:** Leading urologists, researchers, and clinicians from around the world will gather to discuss the latest advancements in urology care and treatment



- **Innovative Therapies in Urology:** Focus on emerging therapies, new drug developments, and groundbreaking treatments for urological disorders



- **Cutting-Edge Surgical Techniques:** A deep dive into minimally invasive procedures, robotic surgeries, and precision surgical technologies for improved patient outcomes



- **Patient-Centered Care:** Emphasis on improving patient care strategies, including personalized treatment plans and enhancing quality of life for urology patients



- **Advances in Diagnostic Technologies:** Exploration of novel diagnostic tools and techniques in the detection and management of urological diseases



- **Educational Opportunities:** Offering a variety of workshops, symposia, and educational sessions designed for urologists at all stages of their careers





# AUA 2025– Conference Themes (1/2)



- **Prostate Cancer Innovations:** New diagnostic methods, treatment modalities, and emerging therapies for prostate cancer management
- **Kidney Cancer and Transplantation:** Advances in kidney cancer treatment, including immunotherapies, targeted therapies, and organ transplantation techniques
- **Bladder Cancer:** Progress in diagnostic imaging, immunotherapies, and targeted treatments for bladder cancer, including management strategies for advanced stages
- **Robotic Surgery in Urology:** Focus on the latest innovations in robotic-assisted surgeries, improving precision and reducing recovery times
- **Male Urology and Sexual Health:** Addressing issues such as erectile dysfunction, low testosterone, and infertility with new treatment approaches



# AUA 2025– Conference Themes (2/2)

- **Female Urology:** Advances in treating urinary incontinence, pelvic organ prolapse, and interstitial cystitis in women
- **Pediatric Urology:** Innovations in managing congenital urological conditions in children and advancing care for pediatric urological diseases
- **Urinary Stone Disease:** Advances in non-invasive treatments, prevention strategies, and surgical interventions for kidney stones and related complications
- **Urologic Oncology:** Exploration of new therapies, including immunotherapy and targeted therapies, for various urological cancers
- **Telemedicine and AI in Urology:** The growing role of artificial intelligence, machine learning, and telemedicine in diagnosing and managing urological disorders



# Noteworthy Scientific presentations at AUA 2025





# Key Topics From Notable Presentations (1/9)



- **Bladder Cancer:** Discussion will focus on how timely interventions like re-TUR, BCG, and radical cystectomy are critical in high-risk NMIBC. Additionally, Gemcitabine/Docetaxel maintenance provides a feasible alternative in settings with limited BCG availability, ensuring continued patient care and outcomes
- **Upstaging at Re-TUR and Risk of Progression in High-Grade NMIBC:** A study found that upstaging at re-TUR significantly increases the risk of progression to muscle-invasive disease in high-grade NMIBC. Patients who were upstaged had a threefold higher risk of progression compared to non-upstaged patients
- **BCG vs. Radical Cystectomy in High-Risk NMIBC:** A multicenter study compared Bacillus Calmette-Guerin (BCG) therapy to radical cystectomy (RC) for high-risk NMIBC patients. The results showed comparable long-term outcomes between the two approaches, but delayed RC after progression led to worse cancer-specific mortality
- **Gemcitabine/Docetaxel Maintenance in NMIBC:** In centers facing BCG shortages, Gemcitabine/Docetaxel maintenance therapy was shown to be as effective as BCG maintenance for preventing recurrence in non-muscle-invasive bladder cancer. It offered promising short-term outcomes and was well-tolerated by patients





# Key Topics From Notable Presentations (2/9)



- **Prostate Cancer:** The spotlight will be on how prostate cancer treatments and outcomes vary across demographics, including age and socio-economic factors, emphasizing the need for personalized care. Additionally, advancements in non-surgical therapies, such as GLX-100, and imaging techniques drive better clinical management
- **GLX-100 for IC/BPS Treatment:** GLX-100, a synthetic glycosaminoglycan replacement therapy, demonstrated significant reductions in bladder pain and improvements in symptom scores for IC/BPS patients. It was well-tolerated with mild adverse events, paving the way for a Phase 2b trial
- **Histological Subtypes of RCC and Survival Post-RAPN:** No significant survival differences were found between clear cell and non-clear cell RCC after robot-assisted partial nephrectomy (RAPN), suggesting that histology does not predict survival in the robotic surgery era
- **Elderly vs. Younger Patients Undergoing RAPN:** Elderly patients ( $\geq 70$  years) had more overall complications during RAPN but experienced similar rates of major complications, blood loss, and positive surgical margins compared to younger patients. The study supports RAPN as a viable treatment for elderly patients



# Key Topics From Notable Presentations (3/9)



- **Kidney Cancer:** Emerging technologies like 3D perfusion models and the evaluation of socioeconomic factors such as ADI are enhancing kidney cancer management will be discussed. Selective renal artery clamping (SC) and precise surgical planning are vital in improving renal function, particularly in high-risk patients
- **Arterial Clamping in Robot-Assisted Partial Nephrectomy:** A study compared ON-clamp and OFF-clamp techniques in robot-assisted partial nephrectomy (RAPN) for single kidney patients. OFF-clamp showed better short-term renal function, but no long-term differences were observed in GFR
- **Socioeconomic Status and Kidney Cancer Mortality:** Data from 12,172 patients showed that a higher Area Deprivation Index (ADI) correlates with an increased risk of kidney cancer-specific mortality. The study highlights the impact of socioeconomic factors on cancer outcomes
- **Selective Renal Artery Clamping and 3D Perfusion Models in RAPN:** The use of 3D perfusion models in RAPN was linked to a higher rate of selective renal artery clamping, improving kidney function in patients with renal tumors, particularly when these models were available during surgery



# Key Topics From Notable Presentations (4/9)



- **Urology Surgery & Procedures:** Surgical techniques and approaches in urology, such as morcellation, urinary diversion, and robotic neobladder creation, will highlight the importance of tailored training, careful outcome evaluation, and individualized treatment planning for improving patient quality of life and surgical success
- **Learning Curve for Novice Residents in Morcellation:** A study evaluating novice residents' skill progression in morcellation using two different tools, Hawk and Storz, showed significant improvement in timing and irrigation volume. However, expert performance remained faster, emphasizing the need for device-specific training
- **Urinary Diversion and HRQoL in Radical Cystectomy:** A comparison between Ileal Conduit (IC) and Orthotopic Neobladder (ON) post-Robot-Assisted Radical Cystectomy (RARC) found that ON provided better long-term physical and sexual function, despite more complications and longer recovery times compared to IC
- **Trifecta Scoring for Totally Intracorporeal Neobladder:** The introduction of a urodynamic-based trifecta to assess outcomes of TIN after RARC revealed that trifecta achievement was the only independent predictor of continence, with 43.2% of patients achieving the trifecta





# Key Topics From Notable Presentations (5/9)



- **Erectile Dysfunction & Sexual Health:** Experts will discuss emerging treatments such as super selective embolization for high-flow priapism and penile augmentation with hyaluronic acid, showing promising results for improving erectile function and patient satisfaction, while platelet-rich therapies require further evaluation to clarify their role in erectile dysfunction management
- **Superselective Embolization for High-Flow Priapism:** Superselective transcatheter embolization proved to be an effective treatment for high-flow priapism, with all procedures successful and no complications. Most patients experienced significant improvements in erectile function and satisfaction, demonstrating the safety and efficacy of this approach
- **Platelet-Rich Therapies for Erectile Dysfunction:** A meta-analysis of PRP and PRFM found no significant improvements in erectile function or hemodynamic parameters compared to placebo, suggesting that these therapies do not offer significant benefits for ED treatment at this time
- **Hyaluronic Acid Fillers for Penile Girth Augmentation:** The "6 S" technique for penile girth augmentation using hyaluronic acid fillers resulted in a significant increase in penis girth, with a high level of patient satisfaction sustained over time. The procedure was safe, with minimal adverse effects





# Key Topics From Notable Presentations (6/9)



- **Nephrology & Renal Disease:** Presentations are set to discuss advancements in genetic risk prediction, the use of ctDNA for recurrence detection, and robotic-assisted nephrectomy techniques that will be improving nephrology care. These innovations offer better outcomes, reduce complications, and enhance patient management in renal diseases and cancer
  - Genetic and Biomarker Risk Prediction for Urolithiasis: Combining PRS and biomarker clusters significantly improved the prediction of urolithiasis risk, with inflammatory and metabolic biomarkers showing the highest association with increased risk, validated across UK and Hong Kong cohorts
  - ctDNA in Renal Cell Carcinoma Surveillance: ctDNA was found to fully correlate with imaging for detecting recurrence in RCC, with a sensitivity of 100%. Incorporating ctDNA into surveillance could supplement imaging, particularly in patients with undetectable ctDNA after surgery
  - Robotic-Assisted Nephrectomy with Vena Cava Thrombectomy: RN with vena cava thrombectomy demonstrated lower blood loss, transfusion rates, and shorter ICU and hospital stays compared to open surgery. This approach showed similar oncological outcomes, making it a feasible option in expert centers





# Key Topics From Notable Presentations (7/9)



- **Advanced Oncology & Metastasis:** Sessions will discuss salvage therapies, PSMA-targeted treatments, and cytoreductive interventions that will advance the treatment landscape for metastatic prostate cancer, offering promising improvements in survival, symptom relief, and quality of life, with ongoing studies needed for further validation
- **Salvage Therapy for Oligorecurrent Prostate Cancer:** A Phase II trial investigated the role of salvage surgery and/or radiation in patients with molecular imaging-defined oligorecurrent prostate cancer. Results showed 40% of patients achieved a  $\geq 50\%$  PSA reduction, and 71.4% achieved ADT-free survival at 12 months. Salvage therapy was deemed safe
- **PSMA Targeting in mCRPC Using Actinium-225-labeled J591A:** Ph I trial assessed the use of Actinium-225-labeled J591 in mCRPC, both as monotherapy and in combination with other treatments. Combination therapy showed superior OS and PFS compared to monotherapy, highlighting its potential for improving patient outcomes
- **Cytoreductive Interventions in mHSPC:** This Ph II multicenter RCT evaluated cytoreductive interventions in de novo mHSPC. Most patients showed viable tumors post-systemic therapy, but cytoreductive approaches were found to be feasible, safe, and warrant further evaluation



# Key Topics From Notable Presentations (8/9)



- **Urology & Pediatrics:** Research on advancements in non-invasive treatments like USG-ESWL and the use of ICG-FI in testicular torsion surgery, improving pediatric urology outcomes. Additionally, addressing socioeconomic and health literacy barriers can enhance follow-up care and complication detection in pediatric patients
- **Ultrasound-Guided ESWL vs. Fluoroscopy-Guided ESWL in Pediatric Renal Stones:** A 20-year retrospective study showed that ultrasound-guided ESWL achieved higher stone-free rates (+15%), lower pain levels, and shorter hospital stays compared to fluoroscopy-guided ESWL in pediatric patients, with similar complication rates
- **Indocyanine Green Fluorescence Imaging in Testicular Torsion Surgery:** A study using Indocyanine Green fluorescence imaging (ICG-FI) during testicular torsion surgery confirmed clinical decisions in 9 out of 10 cases and changed one decision from orchiectomy to orchiopexy, with preserved testicular blood flow in follow-up imaging
- **Socioeconomic Deprivation and Health Literacy in Pediatric Hypospadias Repair Follow-Up:** A study found that SED predicted loss to follow-up after pediatric hypospadias repair, with 42.6% of patients lost to follow-up and 13.6% experiencing complications, highlighting the need for targeted interventions to address these disparities





# Key Topics From Notable Presentations (9/9)



- **Miscellaneous Urology Studies:** Sessions will highlight economic evaluations in urology treatments and advancements in surgical assistant performance, underscore the importance of optimizing cost-efficiency, improving surgical training, and incorporating effective treatment strategies to enhance patient outcomes and operational effectiveness
- **Economic and Operational Evaluation in Urology Treatments:** Gemcitabine/Docetaxel showed better cost-effectiveness than BCG but required more operational resources, while RASP generated higher revenue than HoLEP, especially with same-day discharge
- **Surgical Assistant Performance and Robotic Surgery Outcomes:** The Assistant Activity Classification System (AACS) identified key gestures linked to instrument collisions, emphasizing the need for training to improve surgical outcomes
- **Cryosurgical Ablation for Metastatic Hormone-Sensitive Prostate Cancer:** A study found that adding cryosurgical ablation (CSAP) to systemic therapy significantly prolonged progression-free survival (PFS) and improved urinary outcomes in metastatic hormone-sensitive prostate cancer (mHSPC), supporting its clinical utility for better patient outcomes





# Focus of Key Industry Sponsored Sessions at AUA 2025 (1/4)



- **Johnson & Johnson:**

- Focus Areas: Bladder Cancer, Prostate Cancer
- Sessions will explore advancements in MIBC (Muscle-Invasive Bladder Cancer) treatment options; expert panel discussion on real-world head-to-head data in advanced prostate cancer



- **AstraZeneca:**

- Focus Areas: Muscle-Invasive Bladder Cancer (MIBC)
- Presentations will cover the Practice-changing advancements in MIBC treatment options, focusing on new therapies that are transforming clinical practice for MIBC management. The session will explore the latest innovations and treatment strategies aimed at improving patient outcomes in MIBC



- **Astellas Pharma:**

- Focus Areas: Prostate Cancer Treatment
- Intensification of treatment with XTANDI (Enzalutamide) for patients with metastatic and non-metastatic castration-sensitive prostate cancer



# Focus of Key Industry Sponsored Sessions at AUA 2025 (2/4)



- **Bayer:**

- Focus Areas: Metastatic Hormone-Sensitive Prostate Cancer (mHSPC) & Non-Metastatic Castration-Resistant Prostate Cancer (nmCRPC)
- Efficacy and safety of NUBEQA (darolutamide), focusing on subgroup data, treatment duration, and clinical outcomes, will be highlighted



- **Novartis:**

- Focus Areas: Prostate Cancer Imaging
- Sessions will discuss understanding PSMA PET imaging in prostate cancer, its role in improving diagnostic precision, and its clinical utility



- **Ferring Pharmaceuticals:**

- Focus Areas: Non-Muscle Invasive Bladder Cancer (NMIBC)
- Discussions will highlight novel intravesical gene therapy for NMIBC, including clinical outcomes, real-world evidence, and comprehensive patient support



# Focus of Key Industry Sponsored Sessions at AUA 2025 (3/4)



- **Sumitomo Pharma America:**

- Focus Areas: Patient-Provider Communication
- Strategies to enhance communication between patients and providers to foster timely diagnosis and treatment, improving patient outcomes, will be highlighted



- **Merck:**

- Focus Areas: Renal Cell Carcinoma (RCC)
- Sessions will discuss initial and updated clinical data for certain RCC patients in the adjuvant setting, focusing on improving treatment strategies in this population.



- **Lantheus:**

- Focus Areas: Prostate Cancer Imaging
- Use of PYLARIFY (piflufolastat F 18) injection for PET/CT imaging in prostate cancer, emphasizing its role in staging and treatment planning will be discussed



# Focus of Key Industry Sponsored Sessions at AUA 2025 (4/4)



- **Immunity Bio:**

- Focus Areas: Urological Diseases & Immunotherapy
- The sessions will dive into the role of ANKTIVA in overcoming lymphopenia through NK and memory T cells to achieve durable responses in urological diseases, focusing on the duration of treatment



- **Telix Pharmaceuticals:**

- Focus Areas: Kidney & Prostate Cancer Detection
- Telix will discuss the future of kidney cancer detection and management; Illuccix for 68-Ga PSMA-11 imaging in prostate cancer staging



- **Medtronic:**

- Focus Areas: Robotics in Urology
- Review of clinical data from the US Expand URO study and beyond, focusing on the clinical applications and advancements in robotic-assisted surgery using the Hugo RAS system will be discussed



## Notable Presentations and Late-breaking Sessions at AUA 2025

# Notable Presentations at AUA 2025

## Bladder Cancer (1/6)



| Date          | Title                                                                                                                                                                         | Author         | Summary                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
|---------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 26 April 2025 | Selection of convolutional neural network model for bladder tumor classification of cystoscopy images and comparison with humans                                              | Joong Won Choi | <ul style="list-style-type: none"> <li>• <b>Introduction:</b> This study investigates convolutional neural network (CNN)-based deep learning models for bladder tumor classification in cystoscopy images, aiming to assess AI diagnostic performance against urologists and medical students.</li> <li>• <b>Methodology:</b> A total of 3,731 cystoscopic images, including 2,191 tumor images, were analyzed using 17 CNN models. The diagnostic performance was compared with that of urologists and medical students via ROC curves and metrics.</li> <li>• <b>Results:</b> EfficientNetB0 was selected as the optimal AI model, achieving 81% balanced accuracy, 88% sensitivity, and 74% specificity. Urologists had higher performance (91% balanced accuracy) compared to medical students (69% balanced accuracy).</li> <li>• <b>Conclusions:</b> EfficientNetB0 demonstrates superior accuracy and specificity compared to medical students, suggesting its potential to assist less experienced clinicians in bladder tumor diagnosis, offering broad applications in clinical decision-making.</li> </ul>                             |
| 26 April 2025 | The added value of second-look transurethral resection in non-muscle-invasive bladder cancer patients harboring high-grade disease: results from a European multicenter study | Mattia Longoni | <ul style="list-style-type: none"> <li>• <b>Introduction:</b> Second-look transurethral resection (re-TUR) is standard in high-grade (HG) non-muscle-invasive bladder cancer (NMIBC) with pT1 stage. This study investigates whether upstaging at re-TUR increases recurrence and progression in all HG NMIBC patients.</li> <li>• <b>Methodology:</b> Data from 525 patients undergoing re-TUR for HG NMIBC between 2015 and 2022 across six European institutions were analyzed. Upstaging was defined as higher stage or carcinoma in situ (CIS) at re-TUR. Cox regression models assessed recurrence and progression risks.</li> <li>• <b>Results:</b> Upstaging occurred in 20% of patients. Five-year recurrence rates were 24% in upstaged vs. 18% in non-upstaged patients. Progression rates were 28% vs. 8.5%, respectively. Upstaging was linked to a 3-fold increased risk of progression.</li> <li>• <b>Conclusions:</b> Upstaging at re-TUR significantly increases the risk of progression to muscle-invasive disease, supporting the recommendation for re-TUR in all HG NMIBC cases for improved risk stratification.</li> </ul> |

# Notable Presentations at AUA 2025

## Bladder Cancer (2/6)



| Date          | Title                                                                                                                                                                                         | Author               | Summary                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
|---------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 26 April 2025 | Comparative Analysis of Bacillus Calmette-Guérin Therapy Versus Immediate Radical Cystectomy in High-Risk and Very High-Risk Non-Muscle Invasive Bladder Cancer: A European Multicenter Study | Pietro Scilipoti     | <ul style="list-style-type: none"> <li>• <b>Introduction:</b> The EAU recommends Bacillus Calmette-Guerin (BCG) therapy or radical cystectomy (RC) for high-risk (HR) and very high-risk (VHR) non-muscle invasive bladder cancer (NMIBC). Limited studies directly compare these treatment approaches.</li> <li>• <b>Methodology:</b> A multicenter analysis of 1,491 HR or VHR-NMIBC patients from eight European institutions between 2015 and 2024 was conducted. Propensity score matching was used to compare outcomes in patients receiving BCG therapy or upfront RC. Cancer-specific mortality (CSM) was evaluated.</li> <li>• <b>Results:</b> After matching, 6-year CSM was similar between BCG (17%) and upfront RC (16%). Delayed RC after progression showed worse outcomes, with a 4-year CSM of 31% in progressing patients versus 13% in non-progressing.</li> <li>• <b>Conclusions:</b> Long-term outcomes for BCG and upfront RC were comparable, but delayed RC after progression led to worse outcomes. Timely surgery is critical for improving prognosis.</li> </ul> |
| 26 April 2025 | Comparative Efficacy of BCG induction with BCG Maintenance vs. Gemcitabine/Docetaxel Maintenance in patients with Non-Muscle-Invasive Bladder Cancer                                          | Kaushik Kolanukuduru | <ul style="list-style-type: none"> <li>• <b>Introduction:</b> This study compares the efficacy of BCG induction followed by either BCG maintenance or Gemcitabine/Docetaxel (Gem/Doce) maintenance for non-muscle invasive bladder cancer (NMIBC) amid BCG shortages.</li> <li>• <b>Methodology:</b> NMIBC patients receiving BCG induction from 2018 to 2024 were analyzed. A 1:1 propensity-matched analysis adjusted for factors like age, sex, and tumor size was used to assess recurrence-free survival (RFS) and progression-free survival (PFS).</li> <li>• <b>Results:</b> Of 140 patients, 109 received BCG maintenance and 31 received Gem/Doce maintenance. Two-year any-grade RFS was 82.5% for BCG and 85.1% for Gem/Doce. High-grade RFS was 85.9% for BCG and 88.1% for Gem/Doce. Only one Gem/Doce patient had progression.</li> <li>• <b>Conclusions:</b> Gem/Doce maintenance offers similar efficacy to BCG maintenance. In centers with BCG shortages, using Gem/Doce for maintenance is a feasible alternative.</li> </ul>                                            |



# Notable Presentations at AUA 2025

## Bladder Cancer (3/6)



| Date          | Title                                                                                                                                  | Author           | Summary                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
|---------------|----------------------------------------------------------------------------------------------------------------------------------------|------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 26 April 2025 | Revisiting the risk of progression in primary carcinoma-in-situ: A retrospective, international cohort study                           | Alexandre Zlotta | <ul style="list-style-type: none"> <li>• <b>Introduction:</b> Primary carcinoma in situ (CIS) is a high-risk form of NMIBC with a high likelihood of progression to muscle-invasive or metastatic disease. This study compares the progression risk of primary CIS to other high-grade (HG) NMIBC tumors with concomitant CIS.</li> <li>• <b>Methodology:</b> Data from 855 patients treated between 2005 and 2023 across 19 institutions were analyzed. Patients with primary CIS or Ta/T1 HG with concomitant CIS were included. Time to progression was assessed using Kaplan-Meier and log-rank tests.</li> <li>• <b>Results:</b> The five-year progression risk was 22% for primary CIS, 9% for TaHG with concomitant CIS, and 23% for T1HG with concomitant CIS. The progression risk for primary CIS was significantly higher than for TaHG with concomitant CIS (<math>p &lt; 0.001</math>).</li> <li>• <b>Conclusions:</b> Primary CIS has a significant progression risk (&gt;20%) and should be considered high-risk. These findings are valuable for patient counseling and clinical trial design, highlighting differences in progression risk between primary CIS and papillary tumors with CIS.</li> </ul>                                                       |
| 26 April 2025 | Metachronous upper tract urothelial carcinoma following non-muscle invasive bladder cancer: A retrospective, multi-institutional study | Alexandre Zlotta | <ul style="list-style-type: none"> <li>• <b>Introduction:</b> The financial burden of bladder cancer increases due to ongoing bladder and upper urinary tract monitoring. The incidence of metachronous upper tract urothelial carcinoma (UTUC) after NMIBC varies based on risk categories. This study explores UTUC risk factors in a large cohort.</li> <li>• <b>Methodology:</b> A retrospective study was conducted on NMIBC patients from four Canadian hospitals between 2005-2022. Patients with prior or synchronous UTUC were excluded. Cumulative incidence curves for UTUC were estimated for each risk group, and Fine-Gray regression identified prognostic factors.</li> <li>• <b>Results:</b> Of 3003 patients, 104 developed UTUC over a median follow-up of 4.9 years. The ten-year UTUC incidence was 2.7% for low-risk, 3.9% for intermediate-risk, and 6.3% for high-risk patients. Routine imaging detected 46% of UTUC cases in low-risk and 58% in intermediate-risk.</li> <li>• <b>Conclusions:</b> UTUC risk remains low for low- and intermediate-risk NMIBC patients but exceeds 6% for high-risk patients. Routine upper tract imaging may not be needed for low- and intermediate-risk patients but is advised for high-risk patients.</li> </ul> |

# Notable Presentations at AUA 2025

## Bladder Cancer (4/6)



| Date          | Title                                                                                                                                                                                                                                | Author           | Summary                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
|---------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 26 April 2025 | Phase III, single-arm study to evaluate the efficacy and safety of intravesical paclitaxel-hyaluronic acid conjugate in patients with BCG-unresponsive Carcinoma in situ of the bladder +/- Ta-T1 papillary disease (Orion-BC study) | Max Kates        | <ul style="list-style-type: none"> <li>• <b>Introduction:</b> Bladder carcinoma in situ (CIS) is a precursor to muscle-invasive bladder cancer, with BCG being the first-line treatment. However, recurrence rates are high, and some patients are unfit for radical cystectomy (RC). Fidia Pharmaceuticals is developing Oncofid-P-B, a hyaluronic acid-paclitaxel conjugate, for BCG-unresponsive CIS treatment.</li> <li>• <b>Methodology:</b> The phase 3 trial (NCT05024773) involves 12 weekly instillations of Oncofid-P-B (600 mg) followed by 12 monthly maintenance instillations. Clinical response is evaluated with cystoscopy and cytology, with biopsies at specific intervals. The primary endpoint is the complete response (CR) rate after induction.</li> <li>• <b>Results:</b> The trial is ongoing at 34 centers in Europe and the US, with 49 patients enrolled. A total of 631 instillations have been performed, with only 5 mild, drug-related adverse events. No serious adverse events have been reported, confirming the safety profile seen in prior trials.</li> <li>• <b>Conclusions:</b> Oncofid-P-B has shown excellent safety and clinical outcomes, consistent with previous trials. These results support its target-specific mechanism of action and offer promising evidence for use in BCG-unresponsive CIS patients.</li> </ul> |
| 26 April 2025 | Intravesical Gemcitabine and Docetaxel for High-Risk Non-Muscle Invasive Bladder Cancer Previously Treated with BCG: Results from the EuroGemDoce Group                                                                              | Pietro Scilipoti | <ul style="list-style-type: none"> <li>• <b>Introduction:</b> This study evaluates the efficacy of intravesical gemcitabine/docetaxel (Gem/Doce) in high-risk (HR) and very high-risk (VHR) non-muscle invasive bladder cancer (NMIBC), reporting the first European multicenter experience on its outcomes.</li> <li>• <b>Methodology:</b> Retrospective data from 95 NMIBC patients treated with Gem/Doce at 12 European centers (2021-2024) were analyzed. Patients previously treated with Bacillus Calmette-Guerin (BCG) and completing full induction were included. Disease-free survival (DFS), high-grade DFS (HG-DFS), and progression-free survival (PFS) were estimated using Kaplan-Meier curves.</li> <li>• <b>Results:</b> Of 75 patients, 63 (84%) were HR and 12 (16%) VHR-NMIBC. The 1-year DFS was 73%, HG-DFS was 79%, and PFS was 95%. Adverse events (AEs) occurred in 45% of patients, with 8.7% experiencing severe AEs. Limitations include short follow-up and treatment variability.</li> <li>• <b>Conclusions:</b> Gem/Doce intravesical therapy showed promising short-term outcomes and was well-tolerated in HR and VHR-NMIBC patients. Further randomized trials are needed to identify ideal candidates and standardize treatment</li> </ul>                                                                                           |



# Notable Presentations at AUA 2025

## Bladder Cancer (5/6)



| Date          | Title                                                                                                                                                                        | Author        | Summary                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
|---------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 26 April 2025 | Loop resection or cold-cup biopsy? A prospective randomized study evaluating the accuracy of detrusor muscle representation during transurethral resection of bladder tumors | Eduan Delpont | <ul style="list-style-type: none"> <li>• <b>Introduction:</b> Accurate local staging, particularly assessing detrusor muscle invasion (DMR), is critical for prognosis and treatment. Two methods, 'loop resection' (LR) and 'cold-cup biopsy' (CCB), are used, but their effectiveness remains debated.</li> <li>• <b>Methodology:</b> 120 patients were randomly assigned to LR or CCB during TURBT. The study compared DMR accuracy and artefact presence across less experienced (LES) and more experienced surgeons (MES) using 216 tumor base specimens.</li> <li>• <b>Results:</b> No significant difference in DMR accuracy was found between LR (91%) and CCB (88%) (<math>p=0.573</math>). MES had fewer artefacts with LR (30%) compared to CCB (63%) (<math>p=0.011</math>), while LES showed no significant difference (<math>p=0.801</math>).</li> <li>• <b>Conclusions:</b> Both LR and CCB methods provided similar DMR accuracy. However, MES had fewer artefacts with LR, indicating that CCB may lead to more artefacts in deep muscle specimens.</li> </ul>                      |
| 26 April 2025 | Comparative analysis of dorsal and ventral onlay urethroplasty for female urethral stricture                                                                                 | Rajiv Kore    | <ul style="list-style-type: none"> <li>• <b>Introduction:</b> Female urethral stricture (FUS) is underreported, though increasing evidence shows it is common. This study compares the outcomes of dorsal onlay (DO) and ventral onlay (VO) approaches in female urethroplasty.</li> <li>• <b>Methodology:</b> Data from 50 patients treated between 2015 and 2024 were analyzed. 36 patients with at least 30 months of follow-up were included. The cohorts were compared based on AUA symptom score (AUASS), quality of life (AUA-QOL), uroflowmetry (Q-max), and post-void residual (PVR).</li> <li>• <b>Results:</b> No significant differences were found between DO and VO in AUASS, Q-max, or AUA-QOL (<math>p=0.783, 0.929, 0.656</math>). Recurrence rates were similar (90.5% for DO, 93% for VO). DO is better for distal strictures, while VO is preferred for proximal strictures.</li> <li>• <b>Conclusions:</b> Both DO and VO approaches were effective with few complications. Each showed distinct advantages, making them suitable for different stricture locations.</li> </ul> |



# Notable Presentations at AUA 2025

## Bladder Cancer (6/6)



| Date          | Title                                                                                                                                                     | Author       | Summary                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
|---------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------|--------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 26 April 2025 | Impact of Disease Recurrence on Health-Related Quality of Life after Radical Cystectomy: Results from a Prospective Study                                 | Samuel Gold  | <ul style="list-style-type: none"> <li>• <b>Introduction:</b> This study evaluates health-related quality of life (HRQoL) outcomes in bladder cancer (BCa) patients who experience recurrence within 2 years after radical cystectomy (RC).</li> <li>• <b>Methodology:</b> Data from a prospective HRQoL study were analyzed using 14 validated patient-reported outcomes. Generalized estimating equation (GEE) regression estimated QoL before recurrence. Kaplan-Meier methods estimated recurrence probability.</li> <li>• <b>Results:</b> Of 411 participants, 127 had recurrence, with a 24-month recurrence-free probability of 76%. Global QoL, mental health, and future perspectives showed initial declines at recurrence, improving by 4 months but not returning to baseline. Physical and social functioning declined slightly, while pain and fatigue worsened. No impact was observed on decisional conflict, urostomy symptoms, or bowel function.</li> <li>• <b>Conclusions:</b> Patients with recurrence post-RC show significant HRQoL declines, especially at recurrence onset, with improvements by 4 months. These trends are similar to non-recurrent patients but with slightly worse QoL, aiding clinician-patient counseling.</li> </ul>                                                                    |
| 26 April 2025 | Should primary, solitary, and small (< 3 cm) TaHG tumors be classified as intermediate- or high-risk disease? A retrospective, international cohort study | Jethro Kwong | <ul style="list-style-type: none"> <li>• <b>Introduction:</b> The American Urological Association (AUA) considers primary, solitary, small TaHG tumors without carcinoma-in-situ (CIS) as "intermediate-risk" (IR), while others categorize all TaHG as high-risk (HR). This study evaluates progression risk in these patients to clarify their risk group.</li> <li>• <b>Methodology:</b> Clinicopathological data from 5774 NMIBC patients treated between 2005 and 2023 across 19 institutions in North America and Europe were analyzed. Progression risk, defined as development of muscle-invasive or metastatic disease, was assessed using Kaplan-Meier analysis and log-rank tests.</li> <li>• <b>Results:</b> The 5-year progression risk was 7% for IR low-grade (LG), 8% for primary, solitary, &lt;3 cm TaHG without CIS, 11% for other IR TaHG, 13% for HR TaHG, and 28% for HR T1HG. No significant difference in progression was found between IR LG and primary, solitary, &lt;3 cm TaHG without CIS (<math>p=0.16</math>), while other IR TaHG differed from IR LG (<math>p=0.002</math>).</li> <li>• <b>Conclusions:</b> For intravesical treatment, only primary, solitary, &lt;3 cm TaHG tumors without CIS should be considered intermediate-risk. All other TaHG should be classified as high-risk.</li> </ul> |



# Notable Presentations at AUA 2025

## Prostate Cancer (1/4)



| Date          | Title                                                                                                                                                                                                                        | Author               | Summary                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
|---------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 26 April 2025 | A Phase 1b, First-in-Human, Open-label, Single-Arm Study Evaluating the Safety and Efficacy of GLX-100, a Novel Synthetic Glycosaminoglycan Replacement Therapy in Subjects with Interstitial Cystitis/Bladder Pain Syndrome | Jeffrey Proctor      | <ul style="list-style-type: none"> <li>• <b>Introduction:</b> Since the last FDA-approved therapy for IC/BPS in 1996, there has been an unmet need for new treatments. GLX-100, a synthetic glycosaminoglycan (GAG) replacement therapy, aims to restore bladder impermeability in IC/BPS.</li> <li>• <b>Methodology:</b> 27 female IC/BPS subjects were enrolled. GLX-100 was administered once a week for 8 weeks. Subjects were assessed for safety and efficacy using VAS pain, O'Leary-Sant ICSI, ICPI, and Global Response Assessment (GRA), with follow-ups at 1, 4, and 8 weeks post-treatment.</li> <li>• <b>Results:</b> 25 subjects completed the study. 78% experienced mild or moderate adverse events, mainly urinary tract infections. GLX-100 showed significant reductions in bladder pain and improved ICSI, ICPI scores, and GRA. 72% reported moderate/marked improvement by Day 57.</li> <li>• <b>Conclusions:</b> GLX-100 was well-tolerated, showing meaningful improvements in bladder pain and symptoms, sustained through follow-up. A Phase 2b placebo-controlled study is planned to further evaluate its efficacy.</li> </ul>                                                                         |
| 26 April 2025 | Comparative survival analysis among clear cell and non-clear cell subtypes of renal cell carcinoma after robotic partial nephrectomy                                                                                         | Yuvaraja Thyavihally | <ul style="list-style-type: none"> <li>• <b>Introduction:</b> Histological subtypes (HS) of renal cell carcinoma (RCC) have distinct tumor biologies, but their impact on survival after robot-assisted partial nephrectomy (RAPN) is unclear. This study evaluates whether HS influence survival outcomes after RAPN.</li> <li>• <b>Methodology:</b> 635 RAPN cases (2012-2024) at the center was reviewed, classifying tumors into clear cell and non-clear cell RCC based on the latest WHO RCC 2022 guidelines. Cox regression models assessed the relationship between tumor histologies and survival. Five-year cancer-specific survival (CSS) was compared using t-tests.</li> <li>• <b>Results:</b> Of 635 cases, 455 (71.65%) were clear cell RCC, and 151 (23.77%) were non-clear cell RCC. The 5-year CSS was 99.4% for clear cell and 99.3% for non-clear cell RCC (<math>p=0.8365</math>). No significant association between HS and survival was found in multivariate analysis.</li> <li>• <b>Conclusions:</b> No significant difference in cancer-specific survival was found between clear cell and non-clear cell RCC after RAPN. RCC histology does not predict survival in the robotic surgery era.</li> </ul> |



# Notable Presentations at AUA 2025

## Prostate Cancer (2/4)



| Date          | Title                                                                                                                                                           | Author                     | Summary                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
|---------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 26 April 2025 | Comparative Outcomes of Robot-Assisted Partial Nephrectomy for Localized Renal Masses in Elderly and Younger Patients: A Systematic Review and Meta-Analysis    | Alejandro Calvillo Ramirez | <ul style="list-style-type: none"> <li>• <b>Introduction:</b> This study compares robot-assisted partial nephrectomy (RAPN) outcomes between elderly and younger patients, especially those with higher-risk profiles.</li> <li>• <b>Methodology:</b> A systematic search in August 2024 identified studies comparing RAPN outcomes in elderly (70-74, 75-79, ≥80 years) and younger patients. Outcomes included major complications (Clavien-Dindo grade ≥3), any complications, warm ischemia time (WIT), blood loss (BL), positive surgical margins (PSMs), and trifecta achievement. Odds ratios (OR) and mean differences (MD) were calculated using a random-effects model in R studio.</li> <li>• <b>Results:</b> Seven studies with 5,937 patients were included, 890 of whom were elderly. Elderly patients had more complications (OR 1.38, p=0.02), but no difference in major complications (OR 1.32, p=0.28). BL, PSMs, and trifecta achievement were similar, while WIT was lower in elderly patients (MD -1.59, p=0.0001).</li> <li>• <b>Conclusions:</b> Elderly patients had more complications overall, but major complications, BL, PSMs, and trifecta achievement were similar to younger patients. RAPN is a viable treatment for selected elderly patients, with further validation needed.</li> </ul>                                 |
| 26 April 2025 | Association of Area of Deprivation Index with initial treatment type for localized Prostate Cancer: results from a contemporary North American statewide cohort | Silvia Vigano              | <ul style="list-style-type: none"> <li>• <b>Introduction:</b> This study examines the impact of the Area Deprivation Index (ADI) on initial treatment choices for localized PCa in a North American statewide cohort.</li> <li>• <b>Methodology:</b> A retrospective analysis using Michigan Department of Health and Human Services (MDHHS) data from men diagnosed with localized PCa between 2004 and 2022 was conducted. ADI was assigned by census block, and patients were divided into quartiles. Logistic regression assessed ADI's effect on treatment type (RP, RT, or other), adjusting for covariables.</li> <li>• <b>Results:</b> The study included 60,390 patients, with 49.8% receiving RP, 25.4% RT, and 24.8% other treatments. RP was more common in the first quartile (53.7%) than the fourth (41.9%), while RT and other treatments were more frequent in the fourth quartile. ADI was an independent predictor of treatment (p=0.01), with each 10-unit increase in ADI making patients 1% more likely to receive RT and 5% less likely to receive RP.</li> <li>• <b>Conclusions:</b> Elderly patients in more deprived neighborhoods were less likely to receive surgical treatment. The study highlights ADI's impact on treatment decisions, suggesting the need for further research on its effect on cancer outcomes.</li> </ul> |



# Notable Presentations at AUA 2025

## Prostate Cancer (3/4)



| Date          | Title                                                                                                                                                                                    | Author           | Summary                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
|---------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 26 April 2025 | The rural disadvantage — an observational study of prostate cancer characteristics and outcomes between rural and urban patients over 25 years                                           | Nikhile Mookerji | <ul style="list-style-type: none"> <li><b>Introduction:</b> This study compares prostate cancer mortality rates between rural and urban patients in a universal healthcare system to identify disparities in diagnosis, treatment, and survival.</li> <li><b>Methodology:</b> This retrospective cohort study used data from the Alberta Cancer Registry (1999–2022) and the Alberta Prostate Cancer Research Initiative (APCaRI, 2014–2024). The cohort included 8,932 men diagnosed with prostate cancer and 45,602,119 person-years from Cancer Care Alberta. The primary exposure was residence (urban or rural). The primary outcome was prostate cancer-specific mortality.</li> <li><b>Results:</b> Rural men had higher age-adjusted prostate cancer-specific mortality compared to urban men (52.0 vs. 37.6 deaths per 100,000, <math>p &lt; 0.001</math>). Rural patients were older at diagnosis, had higher PSA levels and Gleason Grade Groups, and were more likely to receive androgen deprivation therapy and radiation. Despite improvements, rural areas had consistently higher mortality rates.</li> <li><b>Conclusions:</b> Rural patients experience poorer prostate cancer outcomes, emphasizing the need for targeted healthcare interventions to address access issues and socio-economic barriers in rural areas, improving prognosis and quality of life.</li> </ul> |
| 26 April 2025 | GG01-08: Increasing the Number of Biopsy Cores Around Prostate Cancer Targeted Lesions in the Transition Zone to Improve Biopsy Accuracy: A Combined Retrospective and Prospective Study | Xuedong Wei      | <ul style="list-style-type: none"> <li><b>Introduction:</b> Prostate biopsy (PBx) is crucial for diagnosing prostate cancer (PCa), but TZ tumors are often under-detected. This study aims to improve TZ biopsy accuracy by validating a template with more cores around TZ lesions.</li> <li><b>Methodology:</b> The study included a retrospective analysis and a randomized clinical trial. The retrospective analysis reviewed 217 patients who underwent radical prostatectomy after "12+X" template PBx (2018–2021). The trial involved 400 patients with "18+X" or "12+X" template PBx (2022–2023).</li> <li><b>Results:</b> The "12+X" template (4 cores in TZ) missed clinically significant PCa (csPCa) in the TZ. The "18+X" template (10 cores in TZ) improved csPCa detection without increasing complications. The "New 12" and "New 12+X" templates maintained csPCa detection with 8 cores in TZ and 4 in the peripheral zone.</li> <li><b>Conclusions:</b> Increasing the number of cores in the TZ improves biopsy accuracy and reduces unnecessary biopsies in non-targeted areas. The new template is a promising approach to improve biopsy for TZ lesions.</li> </ul>                                                                                                                                                                                                     |

# Notable Presentations at AUA 2025

## Prostate Cancer (4/4)



| Date          | Title                                                                                                                    | Author                                       | Summary                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
|---------------|--------------------------------------------------------------------------------------------------------------------------|----------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 26 April 2025 | GG01-09: Comparison of the Predictive Value of mpMRI and PSMA PET/CT for Pelvic Lymph Node Metastasis in Prostate Cancer | Xiangya Hospital of Central South University | <ul style="list-style-type: none"> <li>• <b>Introduction:</b> Lymph node staging in prostate cancer is crucial for treatment and prognosis. This study compares the diagnostic efficacy of pelvic multiparametric magnetic resonance imaging (mpMRI) and PSMA PET/CT in detecting pelvic lymph node metastases.</li> <li>• <b>Methodology:</b> Prostate cancer patients who underwent mpMRI and PSMA PET/CT between March 2020 and September 2023 were retrospectively analyzed, followed by radical prostatectomy and pelvic lymph node dissection. The primary endpoint was the ability of these imaging methods to detect pelvic lymph node metastases.</li> <li>• <b>Results:</b> 115 patients were included. The positivity rate for lymph node metastasis was 18.3% for mpMRI and 25.2% for PSMA PET/CT. Pathological metastasis was found in 28.7%. For mpMRI, sensitivity, specificity, positive predictive value, and negative predictive value were 30.3%, 86.6%, 47.6%, and 75.5%, respectively. For PSMA PET/CT, these values were 63.6%, 90.2%, 72.4%, and 86%, respectively. PSMA PET/CT showed significantly higher sensitivity (<math>p = 0.0067</math>) and better detection rates than mpMRI.</li> <li>• <b>Conclusions:</b> PSMA PET/CT outperforms mpMRI in sensitivity and lymph node detection rate, offering superior staging for prostate cancer. Both methods have good specificity.</li> </ul> |
| 26 April 2025 | Real-World Outcomes of Aquablation for BPH: Comparison with Pivotal WATER Trials in Diverse Patient Populations          | Alexander Glaser                             | <ul style="list-style-type: none"> <li>• <b>Introduction:</b> The WATER and WATER II trials showed Aquablation's efficacy for BPH symptoms in men with prostate volumes (PV) of 30-80 mL and 80-150 mL. This study compares real-world outcomes of Aquablation in men with similar PVs to these trials.</li> <li>• <b>Methodology:</b> 1,946 men from the ICARUS database with PV <math>\geq 150</math> mL who underwent Aquablation at four international centers were analysed. Baseline characteristics, complications, and functional outcomes to the WATER and WATER II trials was compared.</li> <li>• <b>Results:</b> 1,069 men with PV <math>\leq 80</math> mL were compared to 116 from WATER I, and 877 men with PV 80-150 mL to 101 from WATER II. Real-world outcomes showed lower flow rates, higher residuals, and lower PSAs, IPSS, and QoL scores. More men had urinary retention, but transfusion rates were lower. Postoperative IPSS and QoL scores were slightly better, with similar anejaculation rates, flow, and PVR.</li> <li>• <b>Conclusions:</b> Real-world Aquablation outcomes align with trial results. Functional outcomes are similar, and lower transfusion rates highlight advances in hemostatic techniques, reinforcing Aquablation's viability in practice.</li> </ul>                                                                                                             |



# Notable Presentations at AUA 2025

## Kidney Cancer (1/4)



| Date          | Title                                                                                                                                                     | Author        | Summary                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
|---------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------|---------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 26 April 2025 | Multi-institutional Validation Study of the Kidney Cancer Risk Equation (KCRE): Results from the Canadian Kidney Cancer Information System (CKCis)        | David Chung   | <ul style="list-style-type: none"> <li><b>Introduction:</b> This study validates The Kidney Cancer Risk Equation (KCRE) using the Canadian Kidney Cancer Information System (CKCis).</li> <li><b>Methodology:</b> Adult patients who underwent partial (PN) or radical nephrectomy (RN) for localized kidney cancer between 2011 and 2024 were analyzed, with pre-op and 5-year post-op eGFR data. Exclusion criteria included multifocal tumors, solitary kidney, prior kidney transplant, and pre-op eGFR &lt; 15 ml/min/1.73m<sup>2</sup>. The KCRE was calculated, and post-op eGFR &lt; 15 ml/min/1.73m<sup>2</sup> was the primary outcome. AUC and calibration plots assessed accuracy.</li> <li><b>Results:</b> The cohort included 7,745 patients with a median follow-up of 4.5 years. Mean age was 61, and 33.9% were female. Pre-op eGFR was 80 ml/min/1.73m<sup>2</sup>. 52.3% underwent PN, and 47.7% RN. KCRE showed excellent discrimination with an AUC of 0.88. Of 202 pts (2.61%), eGFR dropped below 15 ml/min/1.73m<sup>2</sup>, calibration plots showing overestimation of risk.</li> <li><b>Conclusions:</b> The KCRE accurately predicts renal failure post-nephrectomy and can assist in pre-treatment decision-making for patients and providers.</li> </ul> |
| 26 April 2025 | Does Radical Nephrectomy for High-Grade Renal Cell Carcinoma Improve Outcomes Compared to Partial Nephrectomy? Results from a Canadian Multicentre Cohort | Michael Basin | <ul style="list-style-type: none"> <li><b>Introduction:</b> This study compares outcomes of partial nephrectomy (PN) and RN in non-metastatic clear cell renal cell carcinoma (ccRCC) patients with high-grade disease (grade 3 or 4).</li> <li><b>Methodology:</b> Using the Canadian Kidney Cancer Information System (CKCis), non-metastatic ccRCC patients with grade 3 or 4 who underwent PN/RN from 2011-2024 were analyzed. Outcomes included local recurrence-free survival (local RFS), recurrence-free survival (RFS), cancer-specific survival (CSS), and overall survival (OS), with propensity matching for preoperative factors.</li> <li><b>Results:</b> 1,878 patients were included (PN=877, RN=1,001), with a median follow-up of 3.6 years. RN reduced local recurrence risk (HR 0.10; 95% CI 0.03-0.34) but showed no difference in RFS, CSS, or OS. In the matched cohort, RN did not impact RFS (HR 0.99), CSS (HR 2.38), or OS (HR 1.49).</li> <li><b>Conclusions:</b> RN reduces local recurrence risk in high-grade ccRCC but does not improve overall recurrence or survival. PN patients should be informed of a higher local recurrence risk without a significant impact on cancer mortality.</li> </ul>                                                   |



# Notable Presentations at AUA 2025

## Kidney Cancer (2/4)



| Date          | Title                                                                                                                                                                                                                                                   | Author             | Summary                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
|---------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 26 April 2025 | Utility of Low Anterior Access (LAA) Single Port Robotic Retroperitoneal Partial Nephrectomy for Anteriorly Located Renal Tumors: A Comparison Analysis with Multi-Port Transperitoneal Approach from the Single Port Advanced Research Consortium (SP) | Carter Mikesell    | <ul style="list-style-type: none"> <li><b>Introduction:</b> Low anterior access (LAA) using the Single Port (SP) robotic platform regionalizes upper tract urological procedures to the retroperitoneal space. This study compares SP LAA Robot-Assisted Partial Nephrectomy (RAPN) for anterior tumors with the conventional MP Transperitoneal (TP) approach.</li> <li><b>Methodology:</b> A retrospective review of 3,431 patients from the SPARC database who underwent RAPN for anterior renal masses between 2006 and 2024 was conducted. Surgeries used the da Vinci platform and SP LAA through a 4cm incision. Descriptive statistics compared the groups.</li> <li><b>Results:</b> 761 patients were included (32 SP LAA RP, 729 MP TP RAPN). Both groups had similar characteristics (RENAL score: SP 6 vs. MP 7, <math>p=0.116</math>). SP LAA RP showed lower blood loss (50 vs. 100 mL, <math>p=0.016</math>) and fewer drains (12.5% vs. 38.4%, <math>p&lt;0.001</math>). The SP group had no conversions or complications. Postoperatively, SP had shorter stays (1 vs. 1.6 days, <math>p=0.043</math>) and similar GFR preservation (SP 100%, MP 96.4%, <math>p=0.476</math>).</li> <li><b>Conclusions:</b> SP LAA RAPN for anterior tumors showed similar safety and efficacy to TP MP, with benefits such as shorter stays and fewer complications. The SP approach is versatile for both anterior and posterior tumors..</li> </ul> |
| 26 April 2025 | 3D perfusion models enable more selective clamping during robot-assisted partial nephrectomy: insights from a retrospective study                                                                                                                       | Joris Vangeneugden | <ul style="list-style-type: none"> <li><b>Introduction:</b> Selective renal artery clamping (SC) in robot-assisted partial nephrectomy (RAPN) may improve kidney function, especially in patients with impaired renal function or prolonged clamp times. This study explores the link between 3D perfusion model availability and clamping strategy choice: selective (SC) vs. full (FC).</li> <li><b>Methodology:</b> RAPN cases from Jan 2020 to Jun 2024 were retrospectively reviewed. T1-T2 renal tumor cases using SC or FC were included, excluding off-clamp cases. The availability of 3D perfusion models during surgery and their impact on clamping strategy was assessed. A Chi-square test (<math>p &lt; 0.05</math>) was used for analysis.</li> <li><b>Results:</b> 148 RAPN procedures were analyzed (39% PADUA 6-7, 43% PADUA 8-9, 18% PADUA 10+). SC was preferred when feasible. A 3D perfusion model was used in 109 cases (74%). Availability of the model was strongly linked to SC (<math>p &lt; 0.00001</math>).</li> <li><b>Conclusions:</b> 3D perfusion models are strongly associated with higher SC rates in RAPN. These findings suggest the value of 3D technology in RAPN when aiming for SC. The ongoing multicenter "PODRACING" trial aims to further validate these results.</li> </ul>                                                                                                                             |

# Notable Presentations at AUA 2025

## Kidney Cancer (3/4)



| Date          | Title                                                                                                                                                                                                                                                | Author          | Summary                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
|---------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 26 April 2025 | <a href="#">A Multicenter Retrospective Study on the Interest of Off-Clamp Robot-Assisted Partial Nephrectomy in Preserving Renal Function in Single Kidney Patients — The French network of research on kidney cancer- UroCCR NPOC- SPARE Study</a> | Youness Ahallal | <ul style="list-style-type: none"> <li>• <b>Introduction:</b> This study evaluates the long-term impact of arterial clamping (ON-clamp) versus off-clamp (OFF-clamp) techniques on renal function after robot-assisted partial nephrectomy in patients with a single kidney.</li> <li>• <b>Methodology:</b> Data from 153 partial nephrectomies (49 OFF-clamp, 104 ON-clamp) were analyzed. Primary endpoint: GFR variation post-surgery. Delta variations in GFR were calculated at multiple time points (D1, discharge, 3 months). Statistical tests included ANOVA and Pearson/Spearman correlations.</li> <li>• <b>Results:</b> Blood loss was higher in the ON-clamp group. Significant differences in short-term GFR variation (D1 and discharge) favored OFF-clamp. However, these differences did not persist at 3 months.</li> <li>• <b>Conclusions:</b> Although the OFF-clamp technique showed better short-term renal function, the difference did not last long-term, suggesting minimal sustained impact on renal outcomes.</li> </ul> |
| 27 April 2025 | <a href="#">Association of Area of Deprivation Index with Kidney Cancer Mortality: results from a contemporary North American statewide cohort</a>                                                                                                   | Silvia Viganò   | <ul style="list-style-type: none"> <li>• <b>Introduction:</b> This study explores how socioeconomic status, represented by the Area Deprivation Index (ADI), impacts kidney cancer-specific mortality (CSM) in a North American cohort.</li> <li>• <b>Methodology:</b> Data from 12,172 Michigan patients diagnosed with kidney cancer (2004–2019) were analyzed. ADI was categorized into quartiles based on deprivation. Cumulative incidence and competing-risk regression models assessed the relationship between ADI and CSM.</li> <li>• <b>Results:</b> At 10 years, CSM was highest in the second ADI quartile (32.1%). Compared to the lowest quartile, patients in higher ADI quartiles had a higher risk of CSM (1.21–1.35 fold increase, <math>p=0.030</math>).</li> <li>• <b>Conclusions:</b> Higher ADI is linked to increased kidney cancer mortality, highlighting the role of socioeconomic factors in cancer outcomes. Addressing these disparities is crucial for improving outcomes.</li> </ul>                                  |



# Notable Presentations at AUA 2025

## Kidney Cancer (4/4)



| Date          | Title                                                                                                                  | Author        | Summary                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
|---------------|------------------------------------------------------------------------------------------------------------------------|---------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 27 April 2025 | <a href="#">Impact of Race on Kidney Cancer Mortality: results from a contemporary North American statewide cohort</a> | Silvia Vigano | <ul style="list-style-type: none"> <li>• <b>Introduction:</b> This study examines the impact of race on kidney cancer-specific mortality (CSM) in a statewide cohort, focusing on disparities between Non-Hispanic Black (NHB) and Non-Hispanic White (NHW) patients.</li> <li>• <b>Methodology:</b> Data from 11,860 patients (2004–2019) were analyzed, stratified by race (NHB vs NHW). Cumulative incidence and competing-risk regression models adjusted for covariates to assess CSM differences.</li> <li>• <b>Results:</b> NHB patients had a lower 10-year CSM rate (19.8% vs. 32.5%, <math>p &lt; 0.0001</math>). NHB patients were more likely to have early-stage disease. Race was an independent predictor of CSM, with NHB patients showing a 28% lower risk (HR: 0.72, <math>p &lt; 0.001</math>).</li> <li>• <b>Conclusions:</b> NHB patients with RCC present with lower stage and better CSM outcomes compared to NHW, contradicting trends in other cancers. Further research is needed to explore underlying causes.</li> </ul> |

# Notable Presentations at AUA 2025

## Urology Surgery & Procedures (1/3)



| Date          | Title                                                                                                                                                                           | Author               | Summary                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
|---------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 26 April 2025 | Comparative Analysis of Resident Learning Curves with Ex Vivo Morcellation Using Hawk and Storz Morcellators: A Pathway to Expertise                                            | Mohamed Omar         | <ul style="list-style-type: none"> <li><b>Introduction:</b> This study evaluates the learning curve of novice residents compared to experts in morcellation, using a model simulating the precision required in these procedures.</li> <li><b>Methodology:</b> Three residents and three experts morcellated a boiled egg and a camouflage table tennis ball. Participants used Karl Storz and Hawk morcellators at 2000 rpm/min. Morcellation time and irrigation volume were recorded initially and after five trials.</li> <li><b>Results:</b> Residents showed significant improvement in timing: Hawk (<math>260 \pm 22</math> to <math>110 \pm 9</math> seconds, <math>p=0.004</math>) and Storz (<math>293 \pm 21</math> to <math>132 \pm 10</math> seconds, <math>p=0.035</math>). Irrigation volume decreased similarly for both tools. Experts performed faster (Hawk: 80 seconds, Storz: 90 seconds) with minimal change.</li> <li><b>Conclusions:</b> This model shows novice skill progression in morcellation and the need for device-specific training. Both Hawk and Storz morcellators presented unique challenges, highlighting the need for targeted training in surgical education.</li> </ul>                                                                                              |
| 26 April 2025 | Head-to-head comparison between Ileal Conduit and Orthotopic Neobladder: a Propensity Score Matched analysis of perioperative, postoperative and Health Related Quality of Life | Riccardo Mastroianni | <ul style="list-style-type: none"> <li><b>Introduction:</b> The impact of urinary diversion (UD) on HRQoL is underexplored, with Orthotopic Neobladder (ON) considered optimal. This study compares perioperative, postoperative, and HRQoL outcomes in patients undergoing RARC with Ileal Conduit (IC) and ON.</li> <li><b>Methodology:</b> Data from the IRB-approved Bladder Cancer database (2018-2024) were analyzed. A 1:1 PSM analysis adjusted for age, cT stage, Charlson Comorbidity Index (CCI), and baseline eGFR. HRQoL was assessed using EORTC QLQ-C30 and QLQ-BLM30, with GLMER for time variation.</li> <li><b>Results:</b> 1196 patients were included (99 IC, 97 ON). After PSM, 2 matched cohorts of 45 were obtained. ON group had longer operative times (<math>p&lt;0.001</math>), higher transfusion rates (<math>p=0.03</math>), and longer stays (<math>p=0.01</math>). ON group also had more complications (<math>p=0.03</math>). At 1-year, IC had more pain (<math>p=0.04</math>), ON had better sexual function and minor physical function impairment.</li> <li><b>Conclusions:</b> ON, despite longer stays and more complications, offered better long-term physical and sexual function with less HRQoL impairment, making it a viable choice for some patients.</li> </ul> |



# Notable Presentations at AUA 2025

## Urology Surgery & Procedures (2/3)



| Date          | Title                                                                                                                                                                                                           | Author        | Summary                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
|---------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 26 April 2025 | A novel urodynamic scoring system for evaluating continence quality outcomes of totally intracorporeal robotic orthotopic ileal neobladders at mid-term follow-up: results of a prospective multicentric series | Rocco Flammia | <ul style="list-style-type: none"> <li><b>Introduction:</b> Robot-Assisted Radical Cystectomy (RARC) with totally intracorporeal neobladder (TIN) lacks a standardized functional outcomes scoring system. This study introduces a urodynamic-based trifecta to assess TIN outcomes and predict continence at mid-term follow-up.</li> <li><b>Methodology:</b> 169 patients from three RARC datasets (2017–2024) with TIN types (Florin, Padua ileal, Y neobladder) was analysed. Excluding cases with &lt;24 months follow-up, trifecta was defined as cystometric capacity <math>\geq 250</math>cc, neobladder compliance <math>\geq 20</math> cmH<sub>2</sub>O, and negative Valsalva/abdominal leak pressures. Univariable and multivariable logistic regression identified continence predictors.</li> <li><b>Results:</b> 196 patients were analyzed, 134 with complete urodynamic profiles. The complete trifecta rate was 43.2%, with 19.4% showing suboptimal outcomes. Univariable analysis showed predictors of daytime and night-time incontinence (e.g., BMI, ASA score, trifecta). Multivariable analysis found that trifecta achievement was the only independent predictor of continence (daytime OR 15.4, night-time OR 16.1).</li> <li><b>Conclusions:</b> The urodynamic trifecta is an independent predictor of continence after TIN, regardless of neobladder type. Even with suboptimal trifecta rates, good continence outcomes can be expected.</li> </ul> |
| 27 April 2025 | Single Port Robot-Assisted Radical Prostatectomy with Peritoneal Flap Interposition in Setting of Prior Total Proctocolectomy with Ileal J-Pouch                                                                | -             | <ul style="list-style-type: none"> <li><b>Introduction:</b> Radiation therapy is often unsuitable, and adhesions complicate surgery. This study presents a radical prostatectomy approach in such a patient.</li> <li><b>Methodology:</b> A single port robot-assisted prostatectomy was performed to minimize abdominal access. A posterior dissection identified the plane between the prostate and J-pouch. After freeing the prostate, pouchoscopy was performed, and a peritoneal flap was interposed between the J-pouch and vesicourethral anastomosis to reduce fistula risk.</li> <li><b>Results:</b> Pathology showed pT2 Grade Group 4 with negative margins. The patient was discharged on post-op day 1 and had the catheter removed 2 weeks later. At 3 months, the patient was pad-free with good continence.</li> <li><b>Conclusions:</b> Single port robotic prostatectomy is feasible for patients with an ileal J-pouch. Interposing a peritoneal flap may reduce fistula risk.</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |



# Notable Presentations at AUA 2025

## Urology Surgery & Procedures (3/3)



| Date          | Title                                                                                                                                                                                                            | Author               | Summary                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
|---------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 28 April 2025 | Comparative Study on Long-Term Renal Graft Function in Patients with Ileocystoplasty and a Matched Control Group Based on Donor and Transplant Date                                                              | Affonso Piovesan     | <ul style="list-style-type: none"> <li>• <b>Introduction:</b> About 6% of kidney transplant candidates require lower urinary tract reconstruction, with ileocystoplasty being the gold standard. While graft outcomes are similar in patients with and without bladder issues, most studies focus on pediatric recipients. This study compares outcomes in adults with ileocystoplasty and a matched control group.</li> <li>• <b>Methodology:</b> 93 adult kidney transplant patients with ileocystoplasty from 1988–2022 was analysed. A 2:1 matched control group of 188 patients was created based on transplant date, living donors, and kidney quality (KDPI). Outcomes like creatinine progression, graft loss, and pyelonephritis were compared using mixed ANOVA models and Kaplan-Meier curves.</li> <li>• <b>Results:</b> The groups were similar in demographics and transplant-related factors. The mean follow-up was <math>8.6 \pm 3.6</math> years. The ileocystoplasty group had higher graft loss (44.1% vs. 21.3%, <math>p=0.0001</math>) and more pyelonephritis episodes (<math>22.27 \pm 2.26</math> vs. <math>0.84 \pm 1.76</math>, <math>p&lt;0.0001</math>). Creatinine progression was worse in the ileocystoplasty group (<math>p&lt;0.0001</math>).</li> <li>• <b>Conclusions:</b> Ileocystoplasty recipients had worse kidney transplant outcomes, including higher graft loss and more pyelonephritis episodes compared to those with normal bladders.</li> </ul> |
| 28 April 2025 | Comparative Outcomes of En-Bloc Holmium Laser Enucleation of the Prostate and Transvesical Robot-Assisted Simple Prostatectomy for the Management of Benign Prostatic Hyperplasia: A Propensity-Matched Analysis | Kaushik Kolanukuduru | <ul style="list-style-type: none"> <li>• <b>Introduction:</b> HoLEP and robot-assisted simple prostatectomy (RASP) are treatments for medication-refractory BPH. The comparative outcomes of en-bloc HoLEP with early apical release and RASP with modified Freyer's technique are not well studied.</li> <li>• <b>Methodology:</b> Between 2018-2022, patients with BPH and prostate volume <math>\geq 80</math> grams underwent either HoLEP or RASP based on clinical factors, patient choice, and surgeon preference. A 1:1 propensity-matched analysis compared trifecta outcomes (continence, <math>Q_{max} &gt; 15</math> mL/sec, no complications at 3 months).</li> <li>• <b>Results:</b> 416 patients were analyzed (158 HoLEP, 258 RASP). After matching, 80 patients per group were included. No differences in postoperative IPSS, <math>Q_{max}</math>, or continence rates at 3 months. Trifecta outcomes were 71.25% for HoLEP vs. 63.75% for RASP (<math>p=0.4</math>). HoLEP had shorter hospital stays (1 vs. 2 days, <math>p=0.04</math>) and catheterization times (2 vs. 5 days, <math>p&lt;0.001</math>).</li> <li>• <b>Conclusions:</b> HoLEP offers comparable efficacy to RASP with shorter hospital stays and reduced catheterization time. Further RCTs are needed to refine protocols for medication-refractory BPH.</li> </ul>                                                                                                                                    |



# Notable Presentations at AUA 2025

## Erectile Dysfunction & Sexual Health (1/3)



| Date          | Title                                                                                                                                                                                       | Author           | Summary                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
|---------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 27 April 2025 | <a href="#">Superselective transcatheter embolization in high-flow priapism: results from a multicenter analysis</a>                                                                        | Arianna Biasatti | <ul style="list-style-type: none"> <li>• <b>Introduction:</b> High-flow priapism is a rare condition caused by arterial inflow into the penis due to a fistula between penile arteries and cavernous sinusoids. Conservative treatments are ineffective, and superselective transcatheter embolization is considered the first-line active treatment.</li> <li>• <b>Methodology:</b> Data from 22 patients treated with superselective arterial embolization at two tertiary centers between January 2002 and September 2024 were analyzed. Procedural success was defined as angiographic fistula resolution, with follow-up assessments using IIEF-5, EHS, and satisfaction surveys.</li> <li>• <b>Results:</b> All procedures were successful, with no postoperative complications or recurrences. Median IIEF-5 score was 22, EHS was 4, and 91% of patients expressed satisfaction.</li> <li>• <b>Conclusions:</b> Superselective embolization is a safe and effective treatment for high-flow priapism, with both permanent and absorbable agents showing favorable outcomes without long-term erectile dysfunction.</li> </ul> |
| 27 April 2025 | <a href="#">Efficacy of Platelet-Rich Therapies versus Placebo in the Treatment of Erectile Dysfunction: An Updated Systematic Review and Meta-analysis of Randomized Controlled Trials</a> | Lucas Amorim     | <ul style="list-style-type: none"> <li>• <b>Introduction:</b> Platelet-rich therapies, including PRP and PRFM, have emerged as potential treatments for erectile dysfunction (ED) due to their ability to stimulate angiogenesis and tissue repair. However, the effectiveness of these therapies remains unclear.</li> <li>• <b>Methodology:</b> A systematic review and meta-analysis were conducted, analyzing five RCTs comparing platelet-rich therapies with placebo. Primary outcomes were the IIEF-EF score at 1, 3, and 6 months and hemodynamic parameters (EDV and PSV) from penile Doppler ultrasound.</li> <li>• <b>Results:</b> No significant differences were found between treatment and placebo groups in erectile function (IIEF-EF) or hemodynamic parameters across all follow-up points.</li> <li>• <b>Conclusions:</b> Platelet-rich therapies do not significantly improve ED compared to placebo, and further large-scale studies are needed to clarify their role.</li> </ul>                                                                                                                               |

# Notable Presentations at AUA 2025

## Erectile Dysfunction & Sexual Health (2/3)



| Date          | Title                                                                                                                            | Author          | Summary                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
|---------------|----------------------------------------------------------------------------------------------------------------------------------|-----------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 27 April 2025 | <a href="#">Penile Girth Augmentation with Hyaluronic Acid: A Preliminary Study</a>                                              | Walter Fonseca  | <ul style="list-style-type: none"> <li>• <b>Introduction:</b> Small penis syndrome (SPS) is characterized by dissatisfaction with penis size despite having a normal-sized penis, leading to psychological distress. This study explores the use of hyaluronic acid (HA) fillers for penile girth augmentation as a potential treatment for SPS.</li> <li>• <b>Methodology:</b> Eleven men dissatisfied with their penis size were assessed at an andrology clinic, and psychological evaluations were performed to exclude reality judgment disorders. The "6 S" technique, dividing the penis into six segments for uniform HA distribution, was applied. Girth measurements were taken before and after the procedure, with satisfaction assessed 45 days post-procedure.</li> <li>• <b>Results:</b> The procedure resulted in a mean girth increase of 1.83 cm immediately post-procedure, maintaining 2.02 cm after 30 days. Satisfaction scores averaged 8.6, stabilizing at 8.4 after 6 months. Ultrasound confirmed correct placement of HA.</li> <li>• <b>Conclusions:</b> The "6 S" technique using HA for penile girth augmentation is safe, effective, and results in high patient satisfaction with minimal adverse effects. Future studies will assess potential penile length gains.</li> </ul> |
| 27 April 2025 | <a href="#">Pilot Study of MED3000 for Treatment of Erectile Dysfunction After Bilateral Nerve-Sparing Radical Prostatectomy</a> | Martin Kathrins | <ul style="list-style-type: none"> <li>• <b>Introduction:</b> Erectile dysfunction (ED) is a common consequence of radical prostatectomy, even with nerve-sparing techniques. MED3000, a topical gel, has shown promise in previous trials and was evaluated for its safety and efficacy in ED patients post-bilateral nerve-sparing radical prostatectomy (bnsRP).</li> <li>• <b>Methodology:</b> In this open-label, non-randomized pilot study, 20 patients with ED post-bnsRP were treated with MED3000 for 12 weeks. Assessments included the IIEF, SEAR, EPIC, and climacturia at 4-week intervals, following a 4-week washout from other ED treatments.</li> <li>• <b>Results:</b> Although well-tolerated, MED3000 did not show statistically significant improvement in erectile function or other outcomes at any time points.</li> <li>• <b>Conclusions:</b> MED3000 was safe but ineffective in improving erectile function in patients with severe ED post-bnsRP.</li> </ul>                                                                                                                                                                                                                                                                                                                      |



# Notable Presentations at AUA 2025

## Erectile Dysfunction & Sexual Health (3/3)



| Date          | Title                                                                                                              | Author          | Summary                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
|---------------|--------------------------------------------------------------------------------------------------------------------|-----------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 27 April 2025 | <a href="#">Results of Predictable Up Titration of Oral Testosterone Undecanoate in a Phase 3 Randomized Trial</a> | Helen Bernie    | <ul style="list-style-type: none"> <li>• <b>Introduction:</b> Hypogonadism affects over 2.4 million men in the US and can lead to multiple health issues. Oral testosterone undecanoate (TU) offers a potential treatment, but effective dose titration remains a challenge. This study examines post-titration changes in testosterone (T) levels from the phase 3 inTUNE study.</li> <li>• <b>Methodology:</b> In this phase 3 trial, 166 hypogonadal men were titrated on oral TU starting at 237 mg twice daily. Serum T levels were measured before and after titrations at various time points. This secondary analysis focuses on changes in serum T levels 4 hours after dosing.</li> <li>• <b>Results:</b> 116 patients required titration, with average increases of 192 and 185 ng/dL in T at 4 hours post-dose after titrations to 316 mg and 396 mg, respectively. 75% of patients needed 1-2 titrations to reach therapeutic levels.</li> <li>• <b>Conclusions:</b> Up-titration of TU led to significant increases in serum T levels, suggesting that higher starting doses may reduce the need for multiple titrations, improving treatment efficiency. Future studies should explore patient-specific factors for optimal dosing.</li> </ul> |
| 27 April 2025 | <a href="#">Efficacy of Repeated mTESE in patients with non-obstructive azoospermia - is it justified?</a>         | Binyamin Neeman | <ul style="list-style-type: none"> <li>• <b>Introduction:</b> Non-obstructive azoospermia (NOA) is marked by the absence of sperm in semen, often due to reduced sperm production in the testes. Intracytoplasmic Sperm Injection (ICSI) has allowed men with NOA to father children, but the necessity of repeated sperm extraction after previous failures remains unclear. This study evaluates the outcomes of repeated microscopic Testicular Sperm Extraction (mTESE) in NOA patients with prior failed attempts.</li> <li>• <b>Methodology:</b> This retrospective study analyzed 116 NOA patients who underwent repeated mTESE between 2017 and 2023.</li> <li>• <b>Results:</b> Among 28 patients with prior failed sperm retrieval, success rates were 35% after one prior attempt, 28.5% after two attempts, and 0% after three. No significant age differences were observed between successful and unsuccessful cases.</li> <li>• <b>Conclusions:</b> Repeated mTESE after one or two prior failures offers reasonable success rates. However, repeated attempts after initial failure show little benefit.</li> </ul>                                                                                                                           |

# Notable Presentations at AUA 2025

## Nephrology & Renal Disease (1/2)



| Date          | Title                                                                                                                                                       | Author           | Summary                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
|---------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 26 April 2025 | Risk assessment for urolithiasis using polygenic risk score and biomarker cluster: population-based cohort study in the United Kingdom and Hong Kong        | Rong Na          | <ul style="list-style-type: none"> <li><b>Introduction:</b> This study explores the use of polygenic risk scores (PRS) and biomarker clusters to predict urolithiasis risk.</li> <li><b>Methodology:</b> A cohort study using UK Biobank data was conducted. K-means clustering grouped individuals by biomarker profiles, and Cox models estimated hazard ratios (HRs) for genetic and biomarker risk. Validation was done in a Hong Kong cohort.</li> <li><b>Results:</b> Among 480,098 participants, 6,434 developed urolithiasis over a median follow-up of 13.8 years. The top 25% PRS were associated with a 41% higher risk (HR=1.41, 95%CI: 1.34-1.48). Inflammatory and metabolic biomarkers had a 1.80-fold higher risk (HR=1.80, 95%CI: 1.73-1.87), and hematologic/endocrinic clusters had a 1.78-fold higher risk (HR=1.78, 95%CI: 1.69-1.88). The joint analysis of highest PRS and inflammatory/metabolic profiles showed the highest risk for all urolithiasis types. Validation in Hong Kong confirmed effects with ORs of 1.47 and 1.20.</li> <li><b>Conclusions:</b> Combining genetic risk and biomarker clusters improves urolithiasis risk prediction, providing a more accurate assessment.</li> </ul>                                                                                                                 |
| 27 April 2025 | Comparative Performance of Tumor-Informed Circulating Tumor DNA and Imaging Studies in Monitoring Patients After Surgery for Localized Renal Cell Carcinoma | Reuben Ben-David | <ul style="list-style-type: none"> <li><b>Introduction:</b> This study evaluates ctDNA's role in detecting disease recurrence compared to traditional imaging.</li> <li><b>Methodology:</b> Patients undergoing partial or radical nephrectomy for non-metastatic renal cell carcinoma (RCC) from 2022-2023 were tested for tumor-informed ctDNA (Signatera™). Imaging followed AUA guidelines. Descriptive statistics were analyzed using R.</li> <li><b>Results:</b> The cohort included 79 patients and 261 ctDNA samples. Median age was 62, with a median follow-up of 10 months. Preoperative ctDNA was detectable in 61%. Postoperatively, 9.8% had detectable ctDNA, 80% of whom developed metastatic recurrence. Of 128 imaging studies, 73 had corresponding ctDNA results. All 41 patients with no recurrence had undetectable ctDNA. Five with suspicious imaging had undetectable ctDNA, which resolved. Four with metastatic disease had detectable ctDNA. Sensitivity, specificity, and predictive values for ctDNA vs. imaging were 100%.</li> <li><b>Conclusions:</b> Preoperative ctDNA was detectable in 61%, and 83.3% cleared ctDNA post-nephrectomy. ctDNA correlated with imaging results, even for resolving lesions. ctDNA could supplement imaging in surveillance, alternating with undetectable ctDNA.</li> </ul> |



# Notable Presentations at AUA 2025

## Nephrology & Renal Disease (2/2)



| Date          | Title                                                                                                                                                                                                                                            | Author        | Summary                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
|---------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 28 April 2025 | Erythrocyte Sedimentation Rate: Albumin Ratio A Novel Marker to Predict Outcomes in Renal Cell Carcinoma and Comparative Analysis with Leibovich Score and a Novel Combined Leibovich-Erythrocyte Sedimentation Rate: Albumin Ratio [LEAR] Model | Mai Dabbas    | <ul style="list-style-type: none"> <li>• <b>Introduction:</b> The combined ESR-to-Albumin Ratio (EAR) may improve prediction. EAR, Leibovich score, and a new model (LEAR) for RCC risk stratification was compared.</li> <li>• <b>Methodology:</b> A multicenter RCC registry of patients who underwent surgery was analysed. ROC analysis determined the optimal EAR cutoff. Patients were stratified by Leibovich groups and EAR, with Kaplan-Meier analysis for overall survival (OS) and cancer-specific survival (CSS). Multivariable Cox regression assessed mortality predictors.</li> <li>• <b>Results:</b> 2,629 patients (median age 61, median follow-up 57 months) were analysed. Optimal EAR cutoff was 3.18. High EAR was linked to increased all-cause (HR=1.81) and cancer-specific (HR=3.17) mortality. LEAR predicted worse mortality in intermediate and high-risk groups. Kaplan-Meier analysis showed significant OS and CSS differences. LEAR outperformed Leibovich and EAR in accuracy, with a C-index of 0.74 for all-cause mortality. Time-dependent ROC showed superior accuracy for LEAR (AUC=0.84).</li> <li>• <b>Conclusions:</b> The LEAR model outperforms Leibovich and EAR in predicting RCC survival outcomes. LEAR offers strong discriminatory power and may improve clinical management and follow-up.</li> </ul>                                                                              |
| 29 April 2025 | The French experience on robotic-assisted radical nephrectomy with inferior vena cava thrombectomy : a match-paired comparison with open surgery. (UroCCR 188).                                                                                  | Gaelle Margue | <ul style="list-style-type: none"> <li>• <b>Introduction:</b> Although robotic-assisted radical nephrectomy (RN) has been described, open surgery remains standard. This study evaluates the French experience with robotic-assisted RN and vena cava thrombectomy.</li> <li>• <b>Methodology:</b> Open and robotic-assisted RN with level 1 or 2 vena cava thrombectomy performed between May 2007 and July 2024 was compared. Data were prospectively collected from the UroCCR project (NCT03293563). Propensity matching and regression models adjusted for tumor and thrombus size.</li> <li>• <b>Results:</b> Among 128 patients, 37 underwent robotic surgery. Robotic-assisted RN had lower blood loss (400 vs. 1100 mL, <math>p=0.02</math>), transfusion rate (24.3% vs. 67.6%, <math>p&lt;0.001</math>), ICU stay (2 vs. 4 days, <math>p=0.01</math>), and global stay (5 vs. 9 days, <math>p&lt;0.001</math>). However, it had longer operative (276 vs. 195 min, <math>p&lt;0.001</math>) and clamping times (18.5 vs. 12.5 min, <math>p&lt;0.001</math>). No differences were found in complications, oncological, or functional outcomes.</li> <li>• <b>Conclusions:</b> This large comparative series shows robotic RN with vena cava thrombectomy is feasible and safe. It offers better perioperative outcomes while achieving similar oncological and functional results, especially in expert centers.</li> </ul> |



# Notable Presentations at AUA 2025

## Advanced Oncology & Metastasis (1/2)



| Date          | Title                                                                                                                                                                   | Author                    | Summary                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
|---------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 27 April 2025 | <a href="#">Phase II Trial of Image-Guided Oligometastectomy and Radiation Therapy in Recurrent Prostate Cancer (SOAR)</a>                                              | Alejandro Sanchez         | <ul style="list-style-type: none"> <li>• <b>Introduction:</b> This phase II trial investigates whether salvage surgery and/or radiation improves ADT-free survival in patients with molecular imaging-defined oligorecurrent prostate cancer.</li> <li>• <b>Methodology:</b> Twenty patients with <math>\leq 10</math> lesions on Axumin or PSMA PET after prior prostatectomy/radiation were treated based on site involvement. Interventions included LN dissection and IMRT. Primary endpoint: <math>\geq 50\%</math> PSA decline at 6 months; secondary: PSA-PFS, ADT-free survival, safety.</li> <li>• <b>Results:</b> Median age 65. LN-only recurrence in 90%. PSA reduction <math>\geq 50\%</math> occurred in 40% of patients. At 12 months, PSA-PFS and ADT-free survival were 84.4% and 71.4%, respectively. No severe complications were reported.</li> <li>• <b>Conclusions:</b> Salvage therapy is safe and effective for selected oligometastatic cases. Further studies will refine candidate selection.</li> </ul> |
| 27 April 2025 | <a href="#">PSMA-Targeted Actinium-225 Therapy in Metastatic Castration-Resistant Prostate Cancer: Comparative Outcomes Between Monotherapy vs. Combination Therapy</a> | Valentina Marulanda Corzo | <ul style="list-style-type: none"> <li>• <b>Introduction:</b> Prostate-specific membrane antigen (PSMA) is a key therapeutic target in mCRPC. This study evaluates outcomes from Phase I trials using Actinium-225-labeled J591 (225Ac-J591) alone or in combination.</li> <li>• <b>Methodology:</b> Data from 121 mCRPC patients were analyzed (91 monotherapy; 30 combination therapy). Combination arms included 177Lu-PSMA-I&amp;T, pembrolizumab, or androgen receptor inhibitors. Outcomes: PSA50, OS, PFS, and adverse events.</li> <li>• <b>Results:</b> PSA50 response: 57% combo vs. 49% mono (<math>p=0.5</math>). OS (28.9 vs. 10.7 months) and PFS (7.2 vs. 3.9 months) favored combination (<math>p&lt;0.0001</math>). Grade <math>\geq 3</math> neutropenia was lower with combo; pain flare was higher.</li> <li>• <b>Conclusions:</b> Combination 225Ac-J591 improves survival without compromising safety. Further validation in larger trials is warranted.</li> </ul>                                           |



# Notable Presentations at AUA 2025

## Advanced Oncology & Metastasis (2/2)



| Date          | Title                                                                                                                                                                                                                                                      | Author             | Summary                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
|---------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 27 April 2025 | <a href="#">Additional novel cytoreductive treatments to the primary tumour and metastasis for de novo metastatic-hormone sensitive prostate cancer (IP2-ATLANTA): the internal pilot outcomes of a phase II, multicentre, randomised controlled trial</a> | Martin John Connor | <ul style="list-style-type: none"> <li>• <b>Introduction:</b> This phase II multicenter RCT explores feasibility and safety of cytoreductive interventions in de novo metastatic hormone-sensitive prostate cancer (mHSPC), targeting primary tumor, lymph nodes, and metastases.</li> <li>• <b>Methodology:</b> Eighty-one eligible patients were randomized 1:1:1 to SOC or two cytoreduction arms involving ablation, prostatectomy, radiotherapy, and metastasis-directed SABR. Co-primary endpoints: pathological response, feasibility, and safety; follow-up <math>\geq 12</math> months.</li> <li>• <b>Results:</b> Complete pathological response occurred in 11.3%. MRI downstaging of T4 disease was notable. Recruitment exceeded targets (75%), with cytoreductive approaches well tolerated. Grade <math>\geq 3</math> adverse events were comparable across arms.</li> <li>• <b>Conclusions:</b> Most patients retain viable tumors post-systemic therapy. Cytoreductive strategies are feasible, safe, and warrant further evaluation in mHSPC.</li> </ul> |
| 29 April 2025 | <a href="#">Cryoablation combined with systemic therapy for metastatic hormone-sensitive prostate cancer : A case-control study</a>                                                                                                                        | Yanqing Wang       | <ul style="list-style-type: none"> <li>• <b>Introduction:</b> This retrospective study evaluates whether cryosurgical ablation of the prostate (CSAP) improves outcomes in patients with metastatic hormone-sensitive prostate cancer (mHSPC) when added to systemic therapy.</li> <li>• <b>Methodology:</b> 170 mHSPC patients were analyzed (85 CSAP+, 85 CSAP-) from Renji Hospital (2009–2022). Primary endpoint: progression-free survival (PFS). Molecular, PSA, urinary, and immune markers were also assessed.</li> <li>• <b>Results:</b> CSAP+ group had longer PFS (39.4 vs. 15.8 months; <math>p &lt; 0.001</math>), lower PSA nadir (0.11 vs. 1.07 ng/ml; <math>p &lt; 0.001</math>), and greater urinary symptom relief (74.6% vs. 54.7%). FOXA1 mutation and immune changes post-CSAP predicted improved PFS.</li> <li>• <b>Conclusions:</b> CSAP combined with systemic therapy significantly prolongs PFS, enhances PSA response, and improves urinary outcomes in mHSPC, supporting its clinical utility.</li> </ul>                                      |



# Notable Presentations at AUA 2025

## Urology & Pediatrics (1/2)



| Date          | Title                                                                                                                                                                                                 | Author            | Summary                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
|---------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 27 April 2025 | <a href="#">EFFICACY OF ULTRASOUND-GUIDED EXTRACORPOREAL SHOCK WAVE LITHOTRIPSY (USG-ESWL) IN TREATING RENAL STONES IN PEDIATRIC PATIENTS</a>                                                         | Prashant Pattnaik | <ul style="list-style-type: none"> <li>• <b>Introduction:</b> Managing pediatric renal stones requires minimizing invasiveness and radiation. Ultrasound-guided ESWL (USG-ESWL) offers a radiation-free alternative to traditional fluoroscopy-guided ESWL (FS-ESWL).</li> <li>• <b>Methodology:</b> A 20-year retrospective study (n=1200) compared USG-ESWL (Group A) to FS-ESWL (Group B) in pediatric patients. Outcomes included stone-free rate (SFR), pain (VAS), metabolic profile, hospital stay, and complications.</li> <li>• <b>Results:</b> USG-ESWL achieved higher SFR (+15%, <math>p&lt;0.001</math>), lower pain (VAS -2.3, <math>p&lt;0.001</math>), improved urinary biochemistry, and shorter stays (-1.2 days, <math>p&lt;0.001</math>). Complication rates were similar across groups.</li> <li>• <b>Conclusions:</b> USG-ESWL is a superior, safe, non-invasive first-line treatment for pediatric renal stones, eliminating radiation risk and improving outcomes.</li> </ul> |
| 28 April 2025 | <a href="#">Initial Experience with Indocyanine Green (ICG) Fluorescence Imaging as an Adjunctive to Clinical Decision-making in Pediatric Patients with Testicular Torsion: A Case Series Study.</a> | Zach Edgerton     | <ul style="list-style-type: none"> <li>• <b>Introduction:</b> Choosing between orchiopexy and orchiectomy in testicular torsion is subjective. This study evaluates the role of Indocyanine Green fluorescence imaging (ICG-FI) for intraoperative decision-making.</li> <li>• <b>Methodology:</b> Ten patients underwent ICG-FI during surgical detorsion. Initial decisions based on clinical judgment were re-evaluated using near-infrared ICG imaging to assess testicular perfusion.</li> <li>• <b>Results:</b> ICG-FI confirmed clinical decisions in 9 cases and altered one from orchiectomy to orchiopexy. Follow-up imaging showed preserved blood flow in all orchiopexy cases, with two showing testicular atrophy.</li> <li>• <b>Conclusions:</b> ICG-FI is a valuable adjunct for real-time, objective decision-making in testicular torsion surgery.</li> </ul>                                                                                                                       |



# Notable Presentations at AUA 2025

## Urology & Pediatrics (2/2)



| Date          | Title                                                                                                                  | Author        | Summary                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
|---------------|------------------------------------------------------------------------------------------------------------------------|---------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 28 April 2025 | <a href="#">Socioeconomic Disparities Linked to Loss of Follow-Up in Hypospadias Repair: A Multi-Center Study</a>      | Zoe Guckien   | <ul style="list-style-type: none"> <li>• <b>Introduction:</b> Socioeconomic deprivation (SED) and limited health literacy may hinder follow-up care after pediatric hypospadias repair, potentially affecting complication detection.</li> <li>• <b>Methodology:</b> A retrospective review of 413 patients (2019–2023) assessed follow-up adherence using Area Deprivation Index (ADI) and Health Literacy Estimate (HLE). Loss to follow-up and complications were statistically analyzed.</li> <li>• <b>Results:</b> 42.6% of patients were lost to follow-up; 13.6% had complications. Low national ADI scores correlated with follow-up loss (<math>p=0.046</math>), while HLE and other demographics did not show significance.</li> <li>• <b>Conclusions:</b> Higher SED predicts loss to follow-up, likely leading to underreported complications. Targeted strategies are needed to address these disparities.</li> </ul> |
| 28 April 2025 | <a href="#">Utility of Preoperative Antimicrobial Prophylaxis in Hypospadias Repair: Results From NSQIP-Pediatrics</a> | Michael Basin | <ul style="list-style-type: none"> <li>• <b>Introduction:</b> Evidence for surgical antimicrobial prophylaxis in hypospadias repair is limited. This study assesses the effect of preoperative antibiotics on postoperative outcomes using national data.</li> <li>• <b>Methodology:</b> Hypospadias repairs (<math>n=7,613</math>) were categorized into three procedural groups using NSQIP-P (2021–2022). Multivariate logistic regression controlled for confounders, evaluating associations with wound complications and UTIs.</li> <li>• <b>Results:</b> Preoperative antibiotics (used in 84%) did not reduce wound complications or UTIs in any group. Older age and longer operative times were linked to higher complication rates.</li> <li>• <b>Conclusions:</b> Routine preoperative antibiotics in hypospadias repair do not lower postoperative infection risk, even in higher-risk cases.</li> </ul>              |

# Notable Presentations at AUA 2025

## Miscellaneous Urology Studies (1/3)



| Date          | Title                                                                                                                                               | Author           | Summary                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
|---------------|-----------------------------------------------------------------------------------------------------------------------------------------------------|------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 26 April 2025 | <a href="#">Trends in Urology Residency Applications: Results from The American Urological Association Medical Student Survey from 2022 to 2024</a> | Michael Creswell | <ul style="list-style-type: none"> <li>• <b>Introduction:</b> Amid evolving residency selection processes, this study examines applicant trends and experiences in urology from 2022–2024, focusing on recent structural changes like virtual interviews and USMLE revisions.</li> <li>• <b>Methodology:</b> AUA surveys were distributed to all applicants submitting rank lists for 2022–2024. Data captured demographics, research productivity, exam scores, virtual interview preferences, and views on preference signaling.</li> <li>• <b>Results:</b> Survey participation declined slightly (440 → 387). Step 2 CK gained importance post-Step 1 pass/fail. Research output increased. Preference signals were positively viewed and reduced application volume. Virtual interviews improved equity but in-person was preferred.</li> <li>• <b>Conclusions:</b> Residency application dynamics are shifting. Preference signaling and virtual formats show promise but require further evaluation to optimize fairness and applicant-program alignment.</li> </ul> |
| 26 April 2025 | <a href="#">Assessing "Fit" in the Virtual Urology Residency Match: A Mixed-Methods Study</a>                                                       | Trevor Hunt      | <ul style="list-style-type: none"> <li>• <b>Introduction:</b> This study explores how urology applicants perceive "fit" during the virtual residency application process, using a mixed-methods approach—filling a gap in current literature.</li> <li>• <b>Methodology:</b> A 35-item survey was distributed to 2024 AUA Match applicants (n=233) with both Likert-scale and free-text responses. Fit was defined upfront; data were analyzed using descriptive statistics and grounded theory.</li> <li>• <b>Results:</b> 47% responded. 75% felt confident judging fit virtually across most stages. Despite 63% preferring virtual applications, 65% viewed in-person away rotations as most helpful for assessing fit. Qualitative data highlighted key challenges and benefits.</li> <li>• <b>Conclusions:</b> Applicants value virtual convenience but rely heavily on in-person rotations for evaluating fit. Mixed-method insights support hybrid improvements in future urology residency recruitment models.</li> </ul>                                          |

# Notable Presentations at AUA 2025

## Miscellaneous Urology Studies (2/3)



| Date          | Title                                                                                                                                                                            | Author                | Summary                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
|---------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 29 April 2025 | <a href="#">Comparative Cost-Effectiveness and Operational Investment of Gemcitabine-Docetaxel and Bacillus Calmette-Guerin Treatments in Non-Muscle Invasive Bladder Cancer</a> | Russell Owens         | <ul style="list-style-type: none"> <li>• <b>Introduction:</b> Gemcitabine/Docetaxel (Gem/Doce) is an effective regimen for NMIBC, but its cost-effectiveness (CE) and operational investment (OI) compared to BCG are underexplored.</li> <li>• <b>Methodology:</b> Using institutional data, WAC, Medicare reimbursement, and operational metrics were collected. Effectiveness was based on 2-year high-grade recurrence-free survival (RFS). CE was defined as dollars profit per RFS; OI included throughput and total treatment time.</li> <li>• <b>Results:</b> Gem/Doce had higher CE (\$24,458 vs. \$16,315) but significantly lower throughput (5 vs. 39 patients/day) and longer treatment time (52.5 vs. 3.75 hours). Higher instillation frequency drove profit differences.</li> <li>• <b>Conclusions:</b> Gem/Doce improves CE and outcomes but requires greater operational resources, underscoring the need for balanced adoption strategies in NMIBC care.</li> </ul>                         |
| 29 April 2025 | <a href="#">Comparative cost analysis of robot-assisted simple prostatectomy and Holmium laser enucleation of the prostate for benign prostatic hyperplasia</a>                  | Narmina Khanmammadova | <ul style="list-style-type: none"> <li>• <b>Introduction:</b> This study compares the healthcare cost and revenue profiles of robot-assisted simple prostatectomy (RASP) and Holmium laser enucleation of the prostate (HoLEP) for BPH, given limited existing economic data.</li> <li>• <b>Methodology:</b> A prospective analysis of 305 patients (RASP=39, HoLEP=266) treated between 2021–2024 was conducted. Exclusion criteria applied. Financial data included direct procedural costs and revenues, excluding equipment costs.</li> <li>• <b>Results:</b> RASP involved larger prostates and longer procedures. Direct costs were higher for RASP, yet it yielded significantly higher revenues. Same-day discharge RASP offered the greatest revenue-to-cost ratio (149%).</li> <li>• <b>Conclusions:</b> While RASP is more costly, it generates greater revenue than HoLEP, particularly in same-day discharge settings, justifying further cost-efficiency studies across institutions.</li> </ul> |

# Notable Presentations at AUA 2025

## Miscellaneous Urology Studies (3/3)



| Date          | Title                                                                         | Author      | Summary                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
|---------------|-------------------------------------------------------------------------------|-------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 26 April 2025 | <a href="#">Analyzing assistant actions in robotic surgery: A pilot study</a> | Rikke Olsen | <ul style="list-style-type: none"><li>• <b>Introduction:</b> Assistant performance in robotic surgery remains understudied despite its impact on outcomes. This study introduces a novel Assistant Activity Classification System (AACS).</li><li>• <b>Methodology:</b> Fifteen robotic prostatectomy videos were analyzed using AACS, categorizing seven gestures and seven error types. Correlations were assessed via Pearson's coefficient.</li><li>• <b>Results:</b> From 3,929 gestures and 421 errors, suction and idle-in-view were most frequent. These gestures significantly correlated with instrument collisions (<math>r=0.51-0.55</math>, <math>p&lt;0.005</math>).</li><li>• <b>Conclusions:</b> AACS captures assistant variability and error associations. Findings support future research into how assistant behavior influences surgical outcomes.</li></ul> |



## Key Industry Sponsored Sessions Information



# AUA 2025 Key Industry Sponsored Sessions Information (1/3)

| Date          | Sponsor           | Title                                                                                                                                                                                                                                                    |
|---------------|-------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 26 April 2025 | Johnson & Johnson | <a href="#">Bladder Cancer: Entering a New Era</a>                                                                                                                                                                                                       |
| 26 April 2025 | AstraZeneca       | <a href="#">Practice Changing Advancements In MIBC: A New Treatment Option</a>                                                                                                                                                                           |
| 26 April 2025 | Astellas Pharma   | <a href="#">Treatment Intensification with XTANDI (Enzalutamide) for Patients with Metastatic Castration-Sensitive Prostate Cancer &amp; Nonmetastatic Castration-Sensitive Prostate Cancer with Biochemical Recurrence at High Risk for Metastasis</a>  |
| 26 April 2025 | Johnson & Johnson | <a href="#">Expert Panel Discussion: Real-World Head-to-Head Data in Advanced Prostate Cancer</a>                                                                                                                                                        |
| 26 April 2025 | Bayer             | <a href="#">Insights Into NUBEQA® (darolutamide): Efficacy and Safety in Metastatic Hormone-Sensitive Prostate Cancer (mHSPC) and Non-Metastatic Castration-Resistant Prostate Cancer (nmCRPC), With a Focus on Subgroup Data and Treatment Duration</a> |





# AUA 2025 Key Industry Sponsored Sessions Information (2/3)

| Date          | Sponsor                       | Title                                                                                                                          |
|---------------|-------------------------------|--------------------------------------------------------------------------------------------------------------------------------|
| 26 April 2025 | Novartis Pharma               | <a href="#">Understanding PSMA PET Imaging in Prostate Cancer</a>                                                              |
| 26 April 2025 | Ferring Pharmaceuticals       | <a href="#">A Novel Intravesical Gene Therapy for NMIBC: Clinical Outcomes, Real-World Evidence, and Comprehensive Support</a> |
| 27 April 2025 | Sumitomo Pharma America, Inc. | <a href="#">Enhancing Patient-Provider Communication to Foster Timely Diagnosis and Treatment</a>                              |
| 27 April 2025 | Merck & Co., Inc.             | <a href="#">Initial and Updated Clinical Data for Certain Patients With RCC in the Adjuvant Setting</a>                        |
| 27 April 2025 | Lantheus                      | <a href="#">PYLARIFY® (piflufolastat F 18) Injection for PET/CT Imaging in Prostate Cancer: A Case-Based Presentation</a>      |





# AUA 2025 Key Industry Sponsored Sessions Information (3/3)

| Date          | Sponsor               | Title                                                                                                                                                               |
|---------------|-----------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 27 April 2025 | Immunity Bio          | <a href="#">The Power of ANKTIVA to Overcome Lymphopenia through NK &amp; Memory T Cells to Achieve Durable Responses in Urological Diseases – Duration Matters</a> |
| 27 April 2025 | Telix Pharmaceuticals | <a href="#">The Future of Kidney Cancer Detection and Management</a>                                                                                                |
| 28 April 2025 | Telix Pharmaceuticals | <a href="#">Iluccix for 68-Ga PSMA-11 Imaging for the Staging of Prostate Cancer</a>                                                                                |
| 28 April 2025 | Medtronic             | <a href="#">Hugo™ RAS system: A review of clinical data from the US Expand URO study &amp; beyond</a>                                                               |





# Satellite Sessions Information At AUA 2025

| Date          | Title                                                                                                                                                           |
|---------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 26 April 2025 | <a href="#"><u>DATA &amp; PERSPECTIVES: Clinical Investigators Discuss the Emerging Role of AKT Inhibitors in the Care of Patients with Prostate Cancer</u></a> |
| 26 April 2025 | <a href="#"><u>Mount Sinai 9th Annual Innovations in Robotic Surgery</u></a>                                                                                    |
| 26 April 2025 | <a href="#"><u>Mount Sinai Endo Urology Stone Symposium</u></a>                                                                                                 |
| 27 April 2025 | <a href="#"><u>Next-Gen Solutions in Urology: Integrating Innovative Treatments for OAB and BPH into Practice</u></a>                                           |
| 27 April 2025 | <a href="#"><u>Personalizing Prostate Cancer Care: Real-World Approaches for the Community Urology Practice</u></a>                                             |
| 28 April 2025 | <a href="#"><u>Putting Precision Into Practice for Bladder Cancer Treatment Insights for Individualized Care Across the Disease Continuum</u></a>               |
| 28 April 2025 | <a href="#"><u>PSMA-Targeted PET Imaging and Radioligand Therapy for Prostate Cancer — What Urologists Need to Know</u></a>                                     |





# Noteworthy AI / ML presentations at AUA 2025





# Themes from key AI / ML presentations at AUA 2025 (1/6)

- **AUA 2025 will reflect how AI and machine learning are revolutionizing urology by enhancing diagnostic accuracy, personalized treatment planning, and risk stratification across various conditions, from prostate and bladder cancer to renal and urinary tract disorders. These technologies are streamlining clinical workflows, improving patient outcomes, and reducing reliance on invasive procedures, thereby offering a significant advancement in urological care**
- Check out the key AI / ML themes at AUA 2025 below:
  - **GPT-4 for MCQ Generation in Urology Education:**
    - GPT-4 was used to generate multiple-choice questions (MCQs) for urology exams, with 123 AI-generated questions reviewed by experts. 117 questions were deemed suitable, and 60 were selected for testing, showing the potential of AI in educational assessment
  - **AI in Bladder Inflammation Quantification (IC/BPS):**
    - AI models accurately quantified inflammatory cells in bladder tissue biopsies for interstitial cystitis/bladder pain syndrome (IC/BPS). The model achieved a high F1 score of 95.85%, demonstrating AI's effectiveness in analyzing complex tissue features and supporting pathological insights



# Themes from key AI / ML presentations at AUA 2025 (2/6)

- **AI in Predicting Myosteatorsis in RCC:**

- AI was applied to assess myosteatorsis in 170 RCC patients post-nephrectomy. AI analysis identified myosteatorsis in 21.2% of patients, correlating with poorer disease-free survival (DFS) and aiding in risk stratification for RCC

- **AI-Driven Prediction of Urethroplasty Outcomes:**

- A machine-learning model was developed to predict recurrence and complications after anterior urethroplasty. The AI model achieved an AUC of 0.84, surpassing traditional methods and offering personalized predictions to improve surgical planning

- **AI for Bladder Cancer Tumor Segmentation:**

- PMCNet, an AI-based model, significantly improved bladder cancer tumor segmentation accuracy. With a Dice coefficient of 0.9099, it outperformed existing models, offering enhanced diagnostic precision in cystoscopy and supporting real-time decision-making

- **AI for Predicting Prostate Cancer Risk:**

- An AI model combining clinical variables and imaging data predicted clinically significant prostate cancer (csPCA) with a high AUC of 0.851. This model outperformed PI-RADS and PSA density alone, potentially reducing unnecessary biopsies



# Themes from key AI / ML presentations at AUA 2025 (3/6)

- **AI in Renal Damage Prediction Post-Nephrectomy:**

- AI was applied to predict renal damage based on ischemia time during partial nephrectomy. The model achieved an AUC of 0.96, allowing for more personalized planning and minimizing long-term renal damage post-surgery

- **AI for Diagnosing Female Bladder Outlet Obstruction (fBOO):**

- Machine learning was used to predict female bladder outlet obstruction (fBOO) based on uroflowmetry data. With 87% accuracy, the model reduced the need for invasive urodynamic studies, providing a non-invasive diagnostic approach

- **AI-Based Prostate Cancer Recurrence Prediction:**

- An AI model using MRI and clinical data predicted prostate cancer recurrence with an AUC of 0.716. The model highlighted the importance of tumor location and MRI features, assisting in decision-making for focal therapy

- **Lysosomal Gene Signature for Kidney Cancer Prognosis:**

- AI was used to analyze gene expression in clear cell RCC, developing a 7-gene lysosomal signature for prognosis. The model identified high-risk patients with poorer survival and tailored therapeutic strategies based on genetic markers



# Themes from key AI / ML presentations at AUA 2025 (4/6)

- **AI for Improved Prostate Cancer Diagnosis in Veterans:**
  - A deep learning (DL) model trained on non-veteran data was fine-tuned for prostate cancer detection in veteran biopsy slides. The model achieved high sensitivity but misclassified negative slides, emphasizing the need for veteran-specific AI tools
- **AI-Based Image Segmentation for Prostate Cancer Risk:**
  - An AI model combined mpMRI, clinical variables, and Scanet data to predict prostate cancer risk. The model outperformed conventional methods, providing more precise risk stratification and potentially reducing unnecessary biopsies
- **AI-Enhanced Radiomics for MIBC Survival Prediction:**
  - AI-based radiomics from CT scans were used to predict two-year disease-free survival (DFS) in muscle-invasive bladder cancer (MIBC). The random forest model achieved an AUC of 0.924, improving survival predictions and clinical decision-making
- **AI for Bladder Cancer Detection Using Urine Cytology:**
  - An AI system demonstrated higher sensitivity for detecting high-grade urothelial carcinoma (HGUC) in urine cytology than pathologists. The AI achieved an AUC of 0.81 and showed significantly better sensitivity in internal validation



# Themes from key AI / ML presentations at AUA 2025 (5/6)

- **AI for Predicting Postoperative Risks After Radical Cystectomy:**

- AI models outperformed logistic regression (LR) in predicting postoperative risks after radical cystectomy. Using NCDB data, AI models (neural networks, XGBoost) achieved an AUC of 0.760, improving personalized, data-driven surgical planning

- **AI in Predicting Disease Progression in RCC:**

- AI applied to MRI images predicted the growth rate of renal tumors in patients with Von Hippel-Lindau (VHL) syndrome. The models achieved AUCs of 0.73–0.75, providing more personalized surveillance and risk management

- **AI for Predicting Success of Shock Wave Lithotripsy (SWL):**

- AI was used to predict the success of SWL treatment for ureteral stones. The model, trained on NCCT scans, achieved an accuracy of 85.4%, significantly improving the speed and predictability of clinical decisions

- **AI in Prostate Cancer Diagnosis and Management:**

- AI was integrated into prostate cancer management, analyzing MRI images to aid biopsy decisions. The AI model improved tumor localization and biopsy detection, supporting nerve-sparing surgeries and maintaining favorable outcomes



# Themes from key AI / ML presentations at AUA 2025 (6/6)

- **AI-Driven Image Analysis for Stress Urinary Incontinence (SUI):**
  - A deep learning model was developed to grade female stress urinary incontinence (SUI) using pelvic floor ultrasound. The model showed 84.1% accuracy, offering an objective, non-invasive tool for SUI diagnosis
- **AI-Powered Tools for Kidney Cancer Pathology Report Analysis:**
  - GPT-4 was used to extract structured data from kidney cancer pathology reports. The AI achieved high accuracy (99.2%) for procedural details and tumor size, streamlining data workflows in urologic oncology



## Noteworthy AI / ML presentations at AUA 2025

# Notable Presentations at AUA 2025

## AI / ML (1/20)



| Date          | Title                                                                                                                                                                               | Author               | Summary                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
|---------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 26 April 2025 | <a href="#">The first use of AI (GPT-4) generated multiple-choice questions for examination of surgical subspecialty residents: report of feasibility and psychometric analysis</a> | Jin Kyu (Justin) Kim | <ul style="list-style-type: none"> <li>• <b>Introduction:</b> Traditional MCQ creation in urology education demands intensive expert input. This study explores GPT-4's potential to streamline MCQ development, aligned with RCPSC urology exam standards.</li> <li>• <b>Methodology:</b> A customized GPT-4 model generated MCQs using urology-specific guidelines. Experts reviewed 123 AI-generated questions, and 60 were selected for resident testing.</li> <li>• <b>Results:</b> Of 123 questions, 117 were suitable; 15 residents scored a median of 37/60. Performance improved with training level. Psychometrics showed 65% had acceptable/excellent discrimination. A strong inverse correlation (<math>r = -0.759</math>, <math>p = 0.004</math>) existed between functional distractors and difficulty.</li> <li>• <b>Conclusions:</b> GPT-4 effectively produces quality MCQs, offering scalable support for medical assessment development.</li> </ul> |
| 26 April 2025 | <a href="#">UTILIZING ARTIFICIAL INTELLIGENCE IMAGE ANALYSIS TO QUANTIFY INFLAMMATORY CELLS WITHIN DISTINCT TISSUE LAYERS OF BLADDER BIOPSY SAMPLES FROM PATIENTS WITH IC/BPS</a>   | Madeline Snipes      | <ul style="list-style-type: none"> <li>• <b>Introduction:</b> Inflammatory infiltration may underlie interstitial cystitis/bladder pain syndrome (IC/BPS). This study developed an AI model to quantify lymphocytes, plasma cells, and neutrophils across bladder tissue layers.</li> <li>• <b>Methodology:</b> Bladder biopsies (N=109) from IC/BPS subgroups and controls were stained, digitized, and annotated (n=3,441) for AI training via Aiforia. A Poisson-based mixed effects model assessed cell counts by tissue layer.</li> <li>• <b>Results:</b> The model showed high accuracy (F1 score 95.85%). Lymphocytes were significantly elevated across all IC/BPS subgroups in urothelium, stroma, and muscularis. HL+ samples had distinct plasma cell and neutrophil elevations.</li> <li>• <b>Conclusions:</b> AI accurately quantified inflammatory cells, supporting lymphocyte-driven IC/BPS pathology independent of Hunner lesion status.</li> </ul>   |

# Notable Presentations at AUA 2025

## AI / ML (2/20)



| Date          | Title                                                                                                                        | Author          | Summary                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
|---------------|------------------------------------------------------------------------------------------------------------------------------|-----------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 26 April 2025 | <a href="#">CT-Based AI Analysis of Myosteatosi s and Its Effect on Oncologic Outcomes in Localized Renal Cell Carcinoma</a> | Byeong Jin Kang | <ul style="list-style-type: none"> <li>• <b>Introduction:</b> While myosteatosi s has been linked to outcomes in various cancers, its prognostic value in localized RCC remains underexplored. This study investigates its predictive role using AI-based CT analysis.</li> <li>• <b>Methodology:</b> In a retrospective cohort of 170 RCC patients post-partial nephrectomy (2011–2017), CT scans were analyzed via AI to assess myosteatosi s. Patients were stratified by myosteatosi s status, and DFS outcomes were compared.</li> <li>• <b>Results:</b> Myosteatosi s was identified in 21.2% of patients, associated with older age, higher BMI, lymphovascular invasion, and tumor necrosis. DFS was significantly reduced (<math>p &lt; 0.05</math>), with multivariate analysis confirming myosteatosi s as an independent adverse prognostic factor.</li> <li>• <b>Conclusions:</b> AI-driven CT evaluation of myosteatosi s enhances risk stratification in localized RCC, supporting its integration into prognostic modeling.</li> </ul> |
| 26 April 2025 | <a href="#">UroLOGIC: DEVELOPING A PATIENT FRIENDLY PREDICTIVE TOOL OF URETHROPLASTY OUTCOMES USING MACHINE LEARNING</a>     | Keith Rourke    | <ul style="list-style-type: none"> <li>• <b>Introduction:</b> Urethroplasty is effective for urethral stricture, yet outcome prediction remains limited. This study aimed to develop machine-learning tools to predict surgical success and complications.</li> <li>• <b>Methodology:</b> A retrospective review (2003–2024) of 2,068 men post-anterior urethroplasty assessed stricture and patient variables. Outcomes included recurrence (flexible cystoscope passage) and complications (Clavien <math>&gt; 1</math>). Cox regression, ROC analysis (US, LSE, LERNS), and deep learning logistic regression were applied.</li> <li>• <b>Results:</b> Stricture length, etiology, revision status, number, and segment predicted recurrence. LERNS (AUC 0.76) outperformed US and LSE. AI-based model achieved higher predictive accuracy (AUC 0.84), surpassing classical tools.</li> <li>• <b>Conclusions:</b> Machine-learning enhances personalized outcome prediction in urethroplasty beyond conventional regression models.</li> </ul>      |

# Notable Presentations at AUA 2025

## AI / ML (3/20)



| Date          | Title                                                                                                                                  | Author                    | Summary                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
|---------------|----------------------------------------------------------------------------------------------------------------------------------------|---------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 26 April 2025 | <a href="#">New artificial urinary sphincter : results of the first in man study at one year post-activation (SOPHIA study)</a>        | Emmanuel Chartier-Kastler | <ul style="list-style-type: none"> <li>• <b>Introduction:</b> UroActive™ is a novel, wirelessly controlled artificial urinary sphincter integrating a cuff and programmable control unit. It allows patient-driven voiding, pressure adjustments, and includes an automatic safety deactivation feature.</li> <li>• <b>Methodology:</b> In a prospective, single-arm study (NCT05547672), six post-prostatectomy patients received the device. After a 5-week healing period, outcomes were assessed at defined intervals up to one year, focusing on activation success and continence improvement.</li> <li>• <b>Results:</b> All devices were implanted and activated successfully. No revisions or explants occurred. At one year, all patients achieved &gt;50% reduction in 24-hour pad weight (median 87%). Voiding metrics and Qmax were favorable.</li> <li>• <b>Conclusions:</b> UroActive™ demonstrated strong safety and efficacy over one year, supporting further development as a patient-controllable continence solution.</li> </ul> |
| 26 April 2025 | <a href="#">Primary Results from the Multi-institutional, Prospective Artificial Urinary Sphincter Clinical Outcomes (AUSCO) Trial</a> | Melissa Kaufman           | <ul style="list-style-type: none"> <li>• <b>Introduction:</b> The AMS 800™ artificial urinary sphincter (AUS) is a standard for male SUI treatment. This multi-center prospective study (AUSCO) assessed its safety, efficacy, and QOL outcomes.</li> <li>• <b>Methodology:</b> AUSCO enrolled 115 men with primary SUI across 17 sites (NCT04088331). Patients served as their own controls. Outcomes, including 24-hour pad weight, QOL scores (IQOL, IIQ7), and diary-reported incontinence events, were tracked to 12 months post-activation.</li> <li>• <b>Results:</b> At 12 months, 93.8% achieved ≥50% pad weight reduction; 60.4% reported zero pad use. QOL scores and incontinence metrics improved significantly. Adverse events occurred in 33%, with 7.8% revisions and 1.7% erosions.</li> <li>• <b>Conclusions:</b> AUS provides high continence rates and QOL benefits with an acceptable safety profile in a real-world multi-institutional cohort.</li> </ul>                                                                      |



# Notable Presentations at AUA 2025

## AI / ML (4/20)



| Date          | Title                                                                                                                                                       | Author          | Summary                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
|---------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 26 April 2025 | <a href="#">Patient perceptions about ease of use after artificial urinary sphincter implantation: A multi-institutional prospective study (AUSCO)</a>      | Andrew Peterson | <ul style="list-style-type: none"> <li>• <b>Introduction:</b> While AUS is established for male SUI, patient-reported ease of use remains underreported. This study assessed satisfaction and usability across subgroups by age, BMI, and diabetes status.</li> <li>• <b>Methodology:</b> In the AUSCO study (NCT04088331), 115 men received AMS 800™ AUS at 17 sites. At 6 and 12 months post-activation, 96 completed a non-validated questionnaire on device satisfaction and ease of use.</li> <li>• <b>Results:</b> Satisfaction remained high (91.7% at 12 months). Ease of use improved (80.2% “easy”/“very easy” at 12 months). Over 95% could locate and operate the pump; no association was found with age, BMI, or diabetes.</li> <li>• <b>Conclusions:</b> AUS users report high satisfaction and usability, regardless of age, BMI, or diabetes, supporting broad applicability across patient demographics.</li> </ul> |
| 26 April 2025 | <a href="#">GG01-04: Determination of urinary stone composition using non-contrast computed tomography. Application of an artificial intelligence model</a> | Alejandro Rojas | <ul style="list-style-type: none"> <li>• <b>Introduction:</b> Stone composition is key to preventing urolithiasis recurrence, but traditional methods like IRS require fragments and limited access. This study developed an AI model to predict stone type using NC-CT alone.</li> <li>• <b>Methodology:</b> From 2020–2024, 442 patients with IRS-confirmed stone types and NC-CTs were selected. Standardized stone images (n=1487) were labeled across 5 composition categories. A CNN using VGG16 with fine-tuning was trained and validated.</li> <li>• <b>Results:</b> Model accuracy reached 89.8% (training) and 85.4% (validation). AUC ROC was 0.81 and Cohen’s kappa 0.864, indicating strong agreement.</li> <li>• <b>Conclusions:</b> AI applied to NC-CT effectively predicts stone composition, offering a non-invasive clinical decision tool.</li> </ul>                                                            |

# Notable Presentations at AUA 2025

## AI / ML (5/20)



| Date          | Title                                                                                                                                                                                               | Author         | Summary                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
|---------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 26 April 2025 | <a href="#">GG01-21: Developing and Validating an Advanced Artificial Intelligence (AI) Segmentation Model to Assist Urologists in MRI-ultrasound Fusion Biopsy</a>                                 | Hongda GUO     | <ul style="list-style-type: none"> <li>• <b>Introduction:</b> MRI-ultrasound fusion biopsy improves prostate cancer detection but is time-intensive and complex. This study developed an AI model to automate segmentation and lesion targeting for fusion biopsy.</li> <li>• <b>Methodology:</b> From 385 MRI cases, 254 were used to train/validate an AI model incorporating attention and multimodal fusion techniques. External validation included 131 prospective cases. Segmentation accuracy (prostate, PZ, TZ, lesions) was measured via Dice score.</li> <li>• <b>Results:</b> Dice scores: prostate 0.92, TZ 0.89, PZ 0.75. AI required minimal correction in 94.2% cases. AI detected more lesions per patient (2.6 vs. 1.3) and identified 96.7% of ISUP grade <math>\geq 2</math> lesions in validation.</li> <li>• <b>Conclusions:</b> The AI model enables accurate, automated segmentation and improves malignant lesion detection, supporting its utility in fusion biopsy workflows.</li> </ul>                                               |
| 26 April 2025 | <a href="#">Machine learning-based predictive model of clinically significant prostate cancer (csPCA) and a risk calculator : A multi-institutional study with internal and external validation</a> | Flavio Ordonez | <ul style="list-style-type: none"> <li>• <b>Introduction:</b> Prostate cancer remains a major health issue. This study aimed to build a machine learning model integrating PI-RADS, PSA density, and clinical variables to predict clinically significant prostate cancer (csPCA).</li> <li>• <b>Methodology:</b> In 1,272 patients undergoing TPPB across three countries, clinical and imaging data were collected. Lasso, XGBoost, and LightGBM models were trained and tested; external validation used Harvard Dataverse. Model performance, calibration, and clinical utility were assessed.</li> <li>• <b>Results:</b> LightGBM achieved the highest AUC (0.851 test, 0.818 external). It outperformed PI-RADS and PSAD alone in accuracy and decision curve analysis. Balanced accuracy was 0.773; Brier score 0.156. A web-based risk calculator was developed.</li> <li>• <b>Conclusions:</b> The model showed strong predictive performance and clinical utility, outperforming individual predictors, and may reduce unnecessary biopsies.</li> </ul> |

# Notable Presentations at AUA 2025

## AI / ML (6/20)



| Date          | Title                                                                                                                                                     | Author             | Summary                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
|---------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 27 April 2025 | <a href="#">A Fully Automated Urine Cytology Support Artificial Intelligence System: Multi-Racial Validation</a>                                          | Masatomo Kaneko    | <ul style="list-style-type: none"> <li>• <b>Introduction:</b> Histological high-grade urothelial carcinoma (HGUC) diagnosis via urine cytology is limited by variability and labor intensity. This study validated a fully automated AI system to predict HGUC using multi-racial datasets.</li> <li>• <b>Methodology:</b> From 760 slides across four institutions, 240 were used for training and 520 for internal/external validation. AI output TPS-classified reports and highlighted top 15 suspicious cells. Histological HGUC confirmation was biopsy-based. Performance was compared to pathologists using ROC and McNemar tests.</li> <li>• <b>Results:</b> AI achieved AUCs of 0.81 (internal) and 0.78 (external). AI showed significantly higher sensitivity than pathologists in both validations (<math>p &lt; 0.001</math>) with slightly lower specificity externally (<math>p = 0.005</math>).</li> <li>• <b>Conclusions:</b> The AI system outperformed pathologists in HGUC sensitivity, supporting its role in enhancing cytology-based bladder cancer detection.</li> </ul> |
| 27 April 2025 | <a href="#">Automated MAG3 Renogram Analysis for UPJO Surgery Prediction in Hydronephrosis Using Image Processing and Machine Learning: A Pilot Study</a> | Suhaib Abdulfattah | <ul style="list-style-type: none"> <li>• <b>Introduction:</b> MAG3 renogram interpretation is subjective and <math>T_{1/2}</math>-based assessments can be unreliable. This study tested machine learning (ML) and image processing to improve diagnostic consistency in hydronephrosis evaluation.</li> <li>• <b>Methodology:</b> From 538 renograms (300 patients), time-activity curves were standardized and modeled using CNN-LSTM and feature-based logistic regression and random forest. A mean ensemble model was validated via 5-fold cross-validation.</li> <li>• <b>Results:</b> The ensemble model achieved superior ROC AUC (0.90) versus <math>T_{1/2}</math> (0.87). Integrals and end-phase curve segments were key predictors. Raising the <math>T_{1/2}</math> threshold to 29.8 minutes improved specificity and reduced false positives.</li> <li>• <b>Conclusions:</b> ML-enhanced renogram analysis offers more accurate, reproducible surgical decision support in hydronephrosis management, warranting broader validation.</li> </ul>                                   |

# Notable Presentations at AUA 2025

## AI / ML (7/20)



| Date          | Title                                                                                                                                                                                    | Author             | Summary                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
|---------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 27 April 2025 | <a href="#">Unleashing the power of digital-data platforms: a head-to-head comparison of safety and efficacy for three Phosphodiesterase Type 5 Inhibitors in over 130,000 patients.</a> | Severin Rodler     | <ul style="list-style-type: none"> <li>• <b>Introduction:</b> Direct comparisons of PDE5 inhibitors (PDE5i) for erectile dysfunction (ED) are scarce. This study leveraged digital real-world data to assess patient-reported efficacy and safety outcomes.</li> <li>• <b>Methodology:</b> Over 132,000 patients using sildenafil, tadalafil, or vardenafil via an online platform completed standardized PROs 16 days post-prescription. Comparative analyses used appropriate statistical tests with Bonferroni correction.</li> <li>• <b>Results:</b> Sildenafil showed faster onset and higher efficacy at medium/high doses; tadalafil outperformed at low doses. Adverse event (AE) rates were highest with vardenafil and lowest with tadalafil 5 mg daily. Most common AEs were nasal congestion and headache.</li> <li>• <b>Conclusions:</b> Real-world digital platforms can reveal nuanced, patient-level PDE5i efficacy and safety trends, complementing traditional trials.</li> </ul>                                                                       |
| 27 April 2025 | <a href="#">Artificial Intelligence and Infertility: Accuracy, Inconsistencies, and Clinical Implications of Misguided Recommendations</a>                                               | Yitzchak Katlowitz | <ul style="list-style-type: none"> <li>• <b>Introduction:</b> AI tools like ChatGPT are increasingly used in clinical settings, yet little is known about the implications of their inaccuracies. This study evaluated ChatGPT's adherence to AUA guidelines on male infertility and clinical risks of incorrect responses.</li> <li>• <b>Methodology:</b> Fifty-four AUA guideline statements were converted into prompts. ChatGPT's responses were classified as accurate and complete (AC), accurate but incomplete (AI), or incorrect/misleading (IM). Non-AC responses were further assessed for clinical risk.</li> <li>• <b>Results:</b> 87% of responses were AC, 4% AI, and 9% IM. IM responses led to misdiagnosis/mistreatment (71%) or overtreatment (29%), but none were deemed dangerous. Accuracy was highest in assessment and diagnosis; lowest in imaging.</li> <li>• <b>Conclusions:</b> ChatGPT shows high accuracy for male infertility guidance, though caution is advised for complex or rare conditions due to risk of misapplication.</li> </ul> |



# Notable Presentations at AUA 2025

## AI / ML (8/20)



| Date          | Title                                                                                                                                                                                                                                          | Author          | Summary                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
|---------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 27 April 2025 | <a href="#">Leveraging Machine Learning to Predict Immediate Continence After Single-Port Transvesical Robot-Assisted Radical Prostatectomy</a>                                                                                                | Salim Younis    | <ul style="list-style-type: none"> <li>• <b>Introduction:</b> Post-prostatectomy incontinence impacts quality of life. This study aimed to develop a machine learning (ML) model predicting immediate continence after SPTV-RARP.</li> <li>• <b>Methodology:</b> A retrospective analysis of 255 SPTV-RARP cases (2020–2024) was conducted. Feature selection used Random Forest; pairwise interaction terms enhanced variable interactions. A stacking ensemble (Random Forest/XGBoost base; XGBoost meta-model) predicted outcomes, validated by accuracy, precision, recall, F1, and AUC.</li> <li>• <b>Results:</b> Immediate continence occurred in 38%. The ensemble model achieved 81% accuracy and AUC 0.83. Key predictors included interactive terms (e.g., PSA-CCI, PSA-BMI, CCI-Age).</li> <li>• <b>Conclusions:</b> ML effectively predicted continence post-SPTV-RARP, highlighting the importance of variable interactions. Further validation is warranted.</li> </ul> |
| 27 April 2025 | <a href="#">Development of artificial intelligence software for automated measurement of ureteral stone on non-contrast computed tomography image and prediction of shock wave lithotripsy effectiveness -A prospective multicenter study-</a> | Ryusuke Deguchi | <ul style="list-style-type: none"> <li>• <b>Introduction:</b> While NCCT-based predictors of SWL efficacy exist, they are complex and time-consuming to measure. This study developed AI software to automate ureteral stone measurement and predict SWL outcomes.</li> <li>• <b>Methodology:</b> In 92 patients with single ureteral stones (2021–2022), 12 stone-specific and 3 clinical factors were used to train a support vector machine model. AI performance was validated via 5-fold cross-validation. Measurement time was also compared (manual vs. AI).</li> <li>• <b>Results:</b> AI reduced measurement time significantly (17.5s vs. 74.5s, <math>p &lt; 0.01</math>). Stone-free rate post-SWL was 62%. AI predicted SWL efficacy with a mean AUC of <math>0.825 \pm 0.117</math>.</li> <li>• <b>Conclusions:</b> The AI software enables rapid, accurate, and reproducible prediction of SWL success from NCCT images with minimal user input.</li> </ul>             |

# Notable Presentations at AUA 2025

## AI / ML (9/20)



| Date          | Title                                                                                                                                                                                        | Author           | Summary                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
|---------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 27 April 2025 | <a href="#">miR-193a and nanoparticle technology: a novel therapeutic approach for Alport Syndrome</a>                                                                                       | Stefano Da Sacco | <ul style="list-style-type: none"> <li>• <b>Introduction:</b> Podocyte dysfunction drives renal damage in Alport Syndrome (AS). Elevated miR-193a disrupts podocyte quiescence; this study explores miR-193a inhibition as a therapeutic strategy.</li> <li>• <b>Methodology:</b> Using AS FUCCI mice and glomerulus-on-a-chip (GOAC) with patient-derived podocytes, researchers tested miR-193a mimic/antagomir and targeted micelle-based delivery. Expression changes were analyzed via in situ hybridization, DSP, and protein arrays.</li> <li>• <b>Results:</b> miR-193a was upregulated in AS podocytes, altering osteopontin, VEGFA, ItgaV, and WT1 expression. Inhibition restored G0 state, modulating P18, cyclin A1/C. Micelles selectively targeted podocytes and preserved glomerular barrier integrity.</li> <li>• <b>Conclusions:</b> <a href="#">miR-193a drives podocyte injury in AS. Targeted inhibition via micelles restores quiescence and offers a novel therapeutic avenue.</a></li> </ul> |
| 27 April 2025 | <a href="#">External validation of machine learning predictive models for antibiotic susceptibility of urine culture: a mechanism to reduce morbidity and improve antibiotic stewardship</a> | Glenn Werneburg  | <ul style="list-style-type: none"> <li>• <b>Introduction:</b> Empiric antibiotics for UTIs fail in ~30% of cases. Culture-based AST takes ~3 days. This study developed ML models to predict susceptibility to 11 key antibiotics at diagnosis.</li> <li>• <b>Methodology:</b> Using 4.7M AST results from 2012–2022, ML models were trained and validated internally and on an external hospital cohort. Clinical validation compared algorithm recommendations to clinician-prescribed therapies.</li> <li>• <b>Results:</b> Clinical validation AUCs ranged 0.71–0.94; organism identification improved accuracy (up to AUC 0.97). External validation yielded AUCs 0.69–0.87; local retraining improved performance (up to AUC 0.93). Algorithm recommendations outperformed empiric clinician choices.</li> <li>• <b>Conclusions:</b> <a href="#">ML can predict UTI antibiotic susceptibility at diagnosis, enhancing empiric treatment and antimicrobial stewardship.</a></li> </ul>                          |

# Notable Presentations at AUA 2025

## AI / ML (10/20)



| Date          | Title                                                                                                                                  | Author         | Summary                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
|---------------|----------------------------------------------------------------------------------------------------------------------------------------|----------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 27 April 2025 | <a href="#">Validation of a deep learning algorithm for prostate cancer detection from biopsy slides of veterans</a>                   | Xiaoxu Zheng   | <ul style="list-style-type: none"> <li><b>Introduction:</b> Prostate cancer is more prevalent among veterans, potentially differing biologically from non-veterans. This study assessed a CNN-based deep learning (DL) model trained on non-veterans for cancer detection in veteran biopsy slides.</li> <li><b>Methodology:</b> A total of 645 slides from 154 veterans were annotated and preprocessed. A DL model trained on non-veteran data was fine-tuned using 114 VA slides and tested on 531 slides. Predictions were compared with expert annotations.</li> <li><b>Results:</b> The model achieved high sensitivity (F1 score: 0.8079) but misclassified all negative slides as cancerous, indicating poor specificity in the veteran cohort.</li> <li><b>Conclusions:</b> The DL model overpredicted cancer in veterans, underscoring the need for veteran-specific AI tools due to potential biological and technical differences.</li> </ul>                                                                           |
| 27 April 2025 | <a href="#">Machine Learning-based Prediction Models for 1-Year Treatment Failure after Focal Therapy in Localized Prostate Cancer</a> | Jeong Hoon Lee | <ul style="list-style-type: none"> <li><b>Introduction:</b> Focal therapy for localized prostate cancer is minimally invasive, but predicting treatment failure remains difficult. This study developed machine learning models to improve patient selection using clinical parameters.</li> <li><b>Methodology:</b> Data from 169 patients (45 with failure: biopsy-confirmed <math>\geq</math>GG2 at 1 year) were analyzed. Variables included PSA, PIRADS, lesion/gland features, and anatomical location. Eight ML models were tested using split validation.</li> <li><b>Results:</b> XGBoost performed best (AUROC 0.716; sensitivity 0.75, specificity 0.654). Posterior and base tumor locations, PIRADS, and pre-treatment GG were top predictors. Base tumors had higher failure risk (46.7%, <math>p &lt; 0.001</math>).</li> <li><b>Conclusions:</b> ML-based models using routine clinical data can support focal therapy decision-making, with tumor location and MRI features key to risk stratification.</li> </ul> |

# Notable Presentations at AUA 2025

## AI / ML (11/20)



| Date          | Title                                                                                                                                                           | Author         | Summary                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
|---------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 28 April 2025 | <a href="#">Artificial Intelligence (AI)-Based Prediction of Renal Tumor Growth Kinetics at Critical Tumor Lengths in von Hippel-Lindau (VHL) Syndrome</a>      | Nityam Rath    | <ul style="list-style-type: none"> <li>• <b>Introduction:</b> In VHL patients with renal masses, tumor growth rate (GR) informs active surveillance decisions. This study assessed AI's ability to predict presurgical GR from baseline MRI in 2–3 cm tumors.</li> <li>• <b>Methodology:</b> From 172 tumors (53 patients), baseline and serial MRIs were analyzed. GR was classified as fast (&gt;0.37 cm/year) or slow. A nnUNET-based AI segmented tumors; radiomic features trained Logistic Regression, Random Forest, and XGBoost models.</li> <li>• <b>Results:</b> Fast GR occurred in 48.3% of tumors. AI models achieved predictive accuracy: 0.73 (LR, XG), 0.68 (RF); F1: 0.70–0.75; AUC: 0.70–0.73. XGBoost had the best F1 score (0.75).</li> <li>• <b>Conclusions:</b> AI radiomics from baseline MRI accurately predicted GR in sub-3 cm renal tumors, supporting personalized surveillance in VHL-associated renal cancer.</li> </ul>                                                                                                                  |
| 28 April 2025 | <a href="#">A Quality Analysis of Laparoscopic Donor Nephrectomy-related Information disseminated by Artificial Intelligence Chatbots Using Validated Tools</a> | Matt Wainstein | <ul style="list-style-type: none"> <li>• <b>Introduction:</b> As AI chatbots gain popularity, their role in informing prospective live kidney donors is growing. This study compared the quality of laparoscopic donor nephrectomy information from ChatGPT and Gemini.</li> <li>• <b>Methodology:</b> Twenty-four standardized questions were submitted to both chatbots. Responses were evaluated using DISCERN and PEMAT-P tools by two reviewers. Interrater reliability ensured scoring consistency.</li> <li>• <b>Results:</b> Of 23 evaluated responses, Gemini responses were longer and more actionable (<math>p &lt; 0.05</math>), often including images/links. Both scored similarly on understandability. Only Gemini disclosed its non-clinical role in three responses; neither cited sources.</li> <li>• <b>Conclusions:</b> Both chatbots provide understandable transplant-related content; Gemini offers slightly higher quality and more actionable guidance. Further research into AI integration in transplant education is warranted.</li> </ul> |

# Notable Presentations at AUA 2025

## AI / ML (12/20)



| Date          | Title                                                                                                                                                               | Author         | Summary                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
|---------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 28 April 2025 | <a href="#">Application of an artificial intelligence model based on pelvic floor ultrasound for the diagnosis of female stress urinary incontinence</a>            | Junlong Huang  | <ul style="list-style-type: none"> <li>• <b>Introduction:</b> Accurate grading of female stress urinary incontinence (SUI) remains challenging. This study developed a deep learning model using pelvic floor ultrasound during Valsalva to support objective SUI grading.</li> <li>• <b>Methodology:</b> In 282 patients (167 SUI, 115 non-SUI), midsagittal pelvic floor images were analyzed. A ResNet50 model (transfer learning) was trained and validated with five-fold cross-validation. Grad-CAM visualized model focus areas.</li> <li>• <b>Results:</b> Model accuracy was 84.1% (training) and 83.9% (test). Test AUCs were: non-SUI 0.88, mild SUI 0.91, moderate SUI 0.92, severe SUI 0.88—indicating strong diagnostic performance across SUI severity.</li> <li>• <b>Conclusions:</b> This AI model reliably grades SUI using Valsalva ultrasound, supporting clinical decision-making with objective, image-based assessment.</li> </ul>                              |
| 28 April 2025 | <a href="#">GG03-11: The Artificial Urinary Sphincter — a prospective analysis of Decisional Regret and Satisfaction with Decision at one Year After Activation</a> | Cristian Persu | <ul style="list-style-type: none"> <li>• <b>Introduction:</b> The artificial urinary sphincter (AUS) is the gold standard for post-prostatectomy incontinence. This study assessed patient satisfaction and decisional regret post-AUS implantation over one year.</li> <li>• <b>Methodology:</b> In 39 patients, SDS and DRS questionnaires were administered post-activation and at one year. Objective outcomes and complications were retrospectively analyzed and correlated with patient perceptions.</li> <li>• <b>Results:</b> Satisfaction improved (SDS: 2.68→3.42, p=0.02) and regret declined (DRS: 3.5→2.6, p=0.0025) over one year. Complications did not significantly affect perception scores. Device type showed no significant impact.</li> <li>• <b>Conclusions:</b> Patient satisfaction improves and regret decreases over time, independent of complications. Patient-reported outcomes should complement clinical metrics in AUS outcome reporting.</li> </ul> |



# Notable Presentations at AUA 2025

## AI / ML (13/20)



| Date          | Title                                                                                                                                                                                 | Author       | Summary                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
|---------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 28 April 2025 | <a href="#">GG03-16: Comparative Analysis of Prostate Volume Measurement Methods for PSA Density: Deep Learning-Based Autosegmentation in MR/TRUS Fusion Targeted Prostate Biopsy</a> | ChenHao Hsu  | <ul style="list-style-type: none"> <li>• <b>Introduction:</b> Prostate-specific antigen density (PSAd) predicts cancer risk in biopsy candidates. This study compared PSAd accuracy across prostate volume measurement methods—ultrasound, MRI ellipsoid, and deep learning-based autosegmentation.</li> <li>• <b>Methodology:</b> In 250 patients with PI-RADS 3–5 lesions, prostate volume was estimated by three methods. PSAd was calculated and predictive accuracy for biopsy-proven cancer was assessed using ROC curves and AUC.</li> <li>• <b>Results:</b> Autosegmentation yielded the highest AUCs across PI-RADS groups (3: 0.62, 4: 0.75, 5: 0.74), outperforming traditional methods. Optimal PSAd thresholds varied by PI-RADS level, improving sensitivity/specificity trade-offs.</li> <li>• <b>Conclusions:</b> Deep learning-based autosegmentation improves PSAd precision and enhances prostate cancer prediction, particularly for PI-RADS 4–5 lesions.</li> </ul> |
| 28 April 2025 | <a href="#">GG03-18: Smart Voiding Measurement: An AI and Thermal Imaging Solution for Home-Based Voiding Assessment</a>                                                              | Yu-Chen Chen | <ul style="list-style-type: none"> <li>• <b>Introduction:</b> Accurate LUTS assessment is critical, yet conventional tools may disrupt natural urination. This study introduces iVoiding, an AI-based, thermal imaging home system to measure voiding dynamics.</li> <li>• <b>Methodology:</b> iVoiding uses a low-res thermal camera and AI algorithms (Thermal-Pose, UFMA) to estimate urine flow distance/angle. In 50 men, results were compared to uroflowmetry under bladder volumes &gt;200 mL; Qmax &gt;15 mL/sec defined healthy flow.</li> <li>• <b>Results:</b> Initial thresholds set from 20 participants were validated in 30. iVoiding matched uroflowmetry in 28/30 cases, yielding 93.3% accuracy.</li> <li>• <b>Conclusions:</b> iVoiding provides accurate, privacy-preserving, AI-assisted LUTS monitoring at home, supporting broader, real-world urinary health assessment.</li> </ul>                                                                             |

# Notable Presentations at AUA 2025

## AI / ML (14/20)



| Date          | Title                                                                                                                                                                                                           | Author      | Summary                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
|---------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 28 April 2025 | <a href="#">Machine learning-based prognostic modeling of seven signatures associated with lysosomes for predicting prognosis and immune status in clear cell renal cell carcinoma</a>                          | Jie Chen    | <ul style="list-style-type: none"> <li>• <b>Introduction:</b> This study aimed to develop a lysosome-associated gene signature for predicting prognosis in clear cell renal cell carcinoma (ccRCC).</li> <li>• <b>Methodology:</b> Transcriptomic and clinical data from TCGA (training set), cBioPortal, and GEO (validation sets) were analyzed. Differentially expressed lysosome-related genes were used to construct a machine learning-based risk model, evaluated via Kaplan-Meier and ROC analysis.</li> <li>• <b>Results:</b> A 7-gene lysosomal signature stratified patients by risk. High-risk patients had significantly worse overall survival (HR: 2.467, P&lt;0.001) and distinct immune infiltration and drug sensitivity profiles, including to axitinib and nilotinib.</li> <li>• <b>Conclusions:</b> This lysosome-based model effectively predicts ccRCC prognosis and may guide personalized therapeutic strategies.</li> </ul> |
| 28 April 2025 | <a href="#">Deep Learning—based Artificial Intelligence Algorithm for Predicting Prostate Cancer at Prostate Biopsy and its Comparison with Radiologists using PIRADS vs. 2.1: An External Validation Study</a> | Mason Belue | <ul style="list-style-type: none"> <li>• <b>Introduction:</b> Inter-reader variability in PI-RADS interpretation limits consistent csPCa detection. This study evaluated a biparametric MRI-based AI algorithm in a real-world biopsy cohort.</li> <li>• <b>Methodology:</b> In 144 men (2022–2024), radiologist PI-RADS assessments and biopsy results were compared to AI-generated lesion maps. A simulation upgraded PI-RADS 3 lesions to 4 if AI flagged them, and diagnostic performance was reanalyzed.</li> <li>• <b>Results:</b> AI sensitivity for csPCa was 90.7% vs. 88.4% for radiologists. AI detected 80% of csPCa in sub-PI-RADS 4 lesions. Simulated AI-assisted upgrades improved csPCa sensitivity by 5.8% and NPV by 9.4%.</li> <li>• <b>Conclusions:</b> The AI algorithm demonstrated robust csPCa detection and enhanced radiologist performance, particularly for PI-RADS 3 lesions.</li> </ul>                               |

# Notable Presentations at AUA 2025

## AI / ML (15/20)



| Date          | Title                                                                                                                                         | Author             | Summary                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
|---------------|-----------------------------------------------------------------------------------------------------------------------------------------------|--------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 28 April 2025 | <a href="#">Artificial Intelligence 3D Augmented Reality guided RARP v.s. Cognitive MRI intervention: ad interim analysis of RIDERS trial</a> | Federico Pireamide | <ul style="list-style-type: none"> <li>• <b>Introduction:</b> Augmented reality (AR) enhanced by AI allows precise 3D overlay during surgery. This study compares oncologic and functional outcomes between 3D AI-AR-assisted and conventional RARP in patients with suspected extracapsular extension.</li> <li>• <b>Methodology:</b> In a 1:3 randomized trial (ISRCTN15750887), patients underwent RARP guided either by 3D AI-AR imaging or conventional 2D MRI interpretation. Outcomes included biopsy results, surgical margins, biochemical recurrence (BCR), continence, and potency at 6 months.</li> <li>• <b>Results:</b> Among 104 patients (3D: 40; non-3D: 64), PSM rates were similar (3D: 55%; non-3D: 50%). However, 3D-guided biopsies had higher detection rates (27.5% vs 9%, <math>p=0.027</math>), reducing PSM at NVB (27.5% vs 40.6%). No differences in BCR, continence, or potency outcomes were observed.</li> <li>• <b>Conclusions:</b> 3D AI-AR enhances tumor localization at the NVB, supports nerve-sparing in rT3 cases, and maintains favorable cancer control and functional outcomes.</li> </ul> |
| 28 April 2025 | <a href="#">Generative Artificial Intelligence Applications in Data Abstraction and Pattern Analysis for Kidney Cancer Pathology Reports</a>  | William Pace       | <ul style="list-style-type: none"> <li>• <b>Introduction:</b> Large Language Models (LLMs) like GPT-4 offer promise in extracting structured data from unstructured medical text, yet validation in urologic oncology, especially kidney cancer, remains limited.</li> <li>• <b>Methodology:</b> A HIPAA-compliant GPT-4 system was used to extract data from 249 kidney cancer pathology reports at UCSF. Extraction accuracy for both categorical and continuous variables was benchmarked against manually curated gold-standard data.</li> <li>• <b>Results:</b> GPT-4 showed high accuracy for procedure type (99.2%), laterality (98.4%), and tumor size (98.4%). Lower performance occurred in nodal stage (85.5%) and tumor location (90.8%) due to ambiguity or complexity in reporting.</li> <li>• <b>Conclusions:</b> GPT-4 accurately extracts structured data from kidney cancer pathology reports, especially for well-defined fields, supporting its utility in streamlining urologic oncology data workflows.</li> </ul>                                                                                              |

# Notable Presentations at AUA 2025

## AI / ML (16/20)



| Date          | Title                                                                                                                                | Author              | Summary                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
|---------------|--------------------------------------------------------------------------------------------------------------------------------------|---------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 29 April 2025 | <a href="#">An Improved Multi-Scale Deep Learning Framework for Tumor Segmentation from Cystoscopic Images in Bladder Cancer</a>     | Hai Bi              | <ul style="list-style-type: none"> <li>• <b>Introduction:</b> Bladder cancer diagnosis relies heavily on cystoscopy. However, accurate tumor segmentation remains challenging. This study introduces PMCNet, a novel AI model for segmenting bladder tumors in cystoscopic images.</li> <li>• <b>Methodology:</b> Using 1,000 images from 237 patients, PMCNet employs a Gaussian pyramid to extract multi-scale image patches and an encoder-decoder fusion module for tumor boundary segmentation.</li> <li>• <b>Results:</b> PMCNet achieved a Dice coefficient of 0.9099, MIoU of 0.8361, and pixel accuracy of 0.9690—surpassing existing models in delineating bladder tumor margins accurately.</li> <li>• <b>Conclusions:</b> PMCNet is a high-performing, AI-driven segmentation tool that enhances diagnostic precision in bladder cancer and supports real-time cystoscopy-based clinical decision-making.</li> </ul>                                                                                                                                       |
| 29 April 2025 | <a href="#">A Machine Learning-Based Predictive Calculator for Tailored Ischemia Time in Patients undergoing Partial Nephrectomy</a> | Federico Belladelli | <ul style="list-style-type: none"> <li>• <b>Introduction:</b> Ischemia time (IT) during partial nephrectomy (PN) critically affects renal function. A universal 30-minute threshold lacks patient-specific nuance. This study developed a machine learning-based tool to personalize IT limits and predict renal damage (RD).</li> <li>• <b>Methodology:</b> Data from 1,551 PN patients were analyzed. RD was defined as &gt;10% eGFR decline at 1 year. Boruta algorithm selected key variables, which were used in a Random Forest (RF) model. Model performance was evaluated via AUC; an online calculator was created.</li> <li>• <b>Results:</b> RD occurred in 13% of patients. Top predictors included age, ECOG score, preoperative eGFR, and tumor size. The RF model achieved an AUC of 0.96 for RD prediction. The online tool is publicly available.</li> <li>• <b>Conclusions:</b> This AI-driven calculator supports tailored ischemia time planning in PN, enabling risk-adapted surgical strategies to preserve long-term renal function.</li> </ul> |

# Notable Presentations at AUA 2025

## AI / ML (17/20)



| Date          | Title                                                                                                                                                                 | Author          | Summary                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
|---------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 29 April 2025 | <a href="#">The Association Between Artificial Intelligence Generated Renal Tumor Three-Dimensional Contact Surface Area and Partial Nephrectomy Outcomes</a>         | Daniel Roberson | <ul style="list-style-type: none"> <li>• <b>Introduction:</b> 3D Contact Surface Area (CSA) quantifies tumor-parenchyma interface complexity and correlates with partial nephrectomy (PN) outcomes. Manual CSA measurement is labor-intensive; this study evaluates an AI-based tool for automated CSA assessment.</li> <li>• <b>Methodology:</b> From 960 PN cases (2000–2019), AI-derived 3D CSA and volume-adjusted CSA were calculated from CT scans. A composite outcome included 30-day complications, positive margins, or transfusion. Associations were assessed via multivariable logistic regression.</li> <li>• <b>Results:</b> CSA and volume-adjusted CSA were independently associated with adverse outcomes (OR 1.02 and OR 1.13, respectively; <math>p &lt; 0.01</math>). Risk increased from 21.5% to 25.3% between CSA quartiles.</li> <li>• <b>Conclusions:</b> AI-automated 3D CSA is a significant predictor of post-PN outcomes, offering a scalable, individualized risk stratification tool for surgical planning.</li> </ul>                                                      |
| 29 April 2025 | <a href="#">Initial experience of artificial intelligence-guided correlation between mpMRI and electromagnetic diagnostic tool in management of PI-RADS 3 lesions</a> | Giorgio Bozzini | <ul style="list-style-type: none"> <li>• <b>Introduction:</b> The management of PI-RADS 3 lesions remains debated. This study introduces an AI-based tool integrating mpMRI, clinical variables, and Scanet test data to stratify prostate cancer (PCa) risk and guide biopsy decisions.</li> <li>• <b>Methodology:</b> In 268 eligible patients from a 500-patient biopsy cohort (2021–2024), clinical, mpMRI, and Scanet test data were analyzed. An XGBoost model, optimized via RandomizedSearchCV, was developed and validated through cross-validation to maximize sensitivity and specificity.</li> <li>• <b>Results:</b> Scanet test outperformed mpMRI in sensitivity (0.93 vs 0.72) with similar specificity (0.87). An integrated model classified PCa risk into four actionable categories, supporting clinical decision-making in equivocal PI-RADS 3 cases.</li> <li>• <b>Conclusions:</b> This AI-driven, multimodal tool may reduce unnecessary biopsies by refining risk stratification for PI-RADS 3 lesions. Further validation is warranted to confirm its clinical utility.</li> </ul> |

# Notable Presentations at AUA 2025

## AI / ML (18/20)



| Date          | Title                                                                                                                                                       | Author          | Summary                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
|---------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 29 April 2025 | <a href="#">Use of artificial intelligence and novel electromagnetic device in prostate cancer detection: development of a model of PCa risk assessment</a> | Giorgio Bozzini | <ul style="list-style-type: none"> <li>• <b>Introduction:</b> Prostate cancer (PCa) lacks validated screening tools. This study evaluates an AI-based software combining clinical variables and Scanget, a non-invasive electromagnetic test, to assess PCa risk at first encounter.</li> <li>• <b>Methodology:</b> In 321 men undergoing transperineal biopsy (2021–2024), machine learning (XGBoost, RandomizedSearchCV) was trained using PSA, DRE, family history, prostate volume, and Scanget results. PCa detection via biopsy served as the reference standard.</li> <li>• <b>Results:</b> Scanget achieved 95.8% sensitivity, 88.3% specificity, and 86.2% PPV. The integrated model was deployed in software classifying risk in five PI-RADS-like categories from “Highly Unlikely” to “Highly Likely.”</li> <li>• <b>Conclusions:</b> This AI-powered tool offers accurate PCa risk stratification in early evaluation, potentially optimizing diagnostic pathways and resource use, pending further validation.</li> </ul> |
| 29 April 2025 | <a href="#">Using uroflowmetry to predict female bladder outlet obstruction by machine learning</a>                                                         | YIWEI SU        | <ul style="list-style-type: none"> <li>• <b>Introduction:</b> Female bladder outlet obstruction (fBOO) diagnosis typically requires invasive urodynamic studies (UDS). This study aimed to predict detrusor pressure (PdetQmax) and detect fBOO using non-invasive uroflowmetry via machine learning.</li> <li>• <b>Methodology:</b> In 630 women with LUTS (2012–2020), fBOO was defined as Qmax &lt;12 ml/s and PdetQmax &gt;20 cmH<sub>2</sub>O. Uroflowmetry data were normalized and used to train both 1D CNN and multilayer perceptron (MLP) models, with nested 5-fold cross-validation to compare performance.</li> <li>• <b>Results:</b> fBOO was diagnosed in 121 patients. The best-performing MLP model achieved 87% accuracy, 91% sensitivity, and 83% specificity in predicting fBOO based on flow curve data.</li> <li>• <b>Conclusions:</b> Machine learning applied to uroflowmetry can non-invasively and accurately predict fBOO, potentially reducing reliance on UDS in female LUTS evaluation.</li> </ul>        |

# Notable Presentations at AUA 2025

## AI / ML (19/20)



| Date          | Title                                                                                                                 | Author              | Summary                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
|---------------|-----------------------------------------------------------------------------------------------------------------------|---------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 29 April 2025 | <a href="#">Artificial intelligence for urodynamic study interpretation: are available tools ready for primetime?</a> | João Pedro Oliveira | <ul style="list-style-type: none"> <li>• <b>Introduction:</b> While AI tools like ChatGPT have potential in clinical applications, their performance in interpreting complex urodynamic study (UDS) traces remains untested. This study assessed ChatGPT-4o's ability to analyze UDS filling phase traces.</li> <li>• <b>Methodology:</b> Fifty anonymized UDS traces were analyzed by an expert and ChatGPT using a standardized prompt. Accuracy for identifying filling phase, detrusor overactivity (DO), stress incontinence (USI), and rectal contractions (RC) was evaluated before and after error feedback.</li> <li>• <b>Results:</b> In the initial 25 cases, ChatGPT showed high DO sensitivity (90.9%) but low specificity (7.1%). USI classification was accurate (88%) with good specificity (93.3%). RC interpretation was poor. Post-feedback, DO specificity improved slightly (26.7%), while USI and RC interpretation reached 83–87% specificity.</li> <li>• <b>Conclusions:</b> ChatGPT-4o shows promise but lacks consistent accuracy in UDS trace interpretation, particularly for DO and RC. Further refinement and training are required for clinical integration.</li> </ul> |
| 29 April 2025 | <a href="#">Effectiveness of digital therapy in patients with overactive bladder (OAB)</a>                            | Peixian Chen        | <ul style="list-style-type: none"> <li>• <b>Introduction:</b> Behavioral therapy is first-line treatment for overactive bladder (OAB), but poor patient adherence limits its effectiveness. This study evaluates whether digital therapy can enhance outcomes by improving engagement and supervision.</li> <li>• <b>Methodology:</b> 103 OAB patients were assigned to digital therapy with medication (DD group) or behavioral therapy with medication (BD group). The digital platform used app-based voiding diaries, personalized training, and real-time guidance. Outcomes were measured at 4 and 12 weeks.</li> <li>• <b>Results:</b> The DD group had longer treatment duration and higher adherence. At 12 weeks, voiding frequency, nocturia, bladder capacity, OABSS, and QoL significantly improved in the DD group versus BD group, with sustained benefits.</li> <li>• <b>Conclusions:</b> Digital therapy improves adherence and clinical outcomes in OAB management, offering a promising tool for long-term symptom control.</li> </ul>                                                                                                                                              |

# Notable Presentations at AUA 2025

## AI / ML (20/20)



| Date          | Title                                                                                                                                                                                                       | Author       | Summary                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
|---------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 29 April 2025 | <a href="#">Improving Risk Prediction in Radical Cystectomy Patients Using Artificial Intelligence Models</a>                                                                                               | Arash Samiei | <ul style="list-style-type: none"> <li>• <b>Introduction:</b> Predicting complications after radical cystectomy (RC) is challenging. Traditional logistic regression (LR) may overlook complex interactions. This study evaluates AI models versus LR for improved postoperative risk prediction.</li> <li>• <b>Methodology:</b> Using NCDB data (2004–2021) on 59,825 RC patients, AI models (neural networks, XGBoost, Random Forest) and LR were trained on 24 clinical and demographic variables. Model performance for 30-/90-day mortality and 30-day readmission was assessed via 10-fold cross-validation.</li> <li>• <b>Results:</b> Neural networks outperformed all models (AUC 0.760, Acc 70.3%), followed by XGBoost (AUC 0.728) and Random Forest (AUC 0.707). LR showed lowest accuracy (AUC 0.632).</li> <li>• <b>Conclusions:</b> AI models outperform LR in RC risk prediction and could enable personalized, data-driven surgical planning for high-risk patients.</li> </ul>                                |
| 29 April 2025 | <a href="#">An interpretable machine learning model based on contrast-enhanced CT radiomics for predicting post-cystectomy disease-free survival in muscle invasive bladder cancer: a multicenter study</a> | Yongpeng Xie | <ul style="list-style-type: none"> <li>• <b>Introduction:</b> Predicting early recurrence in muscle-invasive bladder cancer (MIBC) remains a challenge. This study aimed to develop and validate an interpretable machine learning (ML) model using CT radiomics and clinical data to predict 2-year disease-free survival (DFS).</li> <li>• <b>Methodology:</b> In 377 MIBC patients post-radical cystectomy from five centers, CT radiomics features were extracted and integrated with clinicopathologic data. Five ML models were trained and tested; model interpretability was assessed using SHAP analysis.</li> <li>• <b>Results:</b> The random forest model combining Rad-score and clinical features achieved AUCs of 0.924 (training) and 0.850 (test). Rad-score and pT stage were the most influential predictors.</li> <li>• <b>Conclusions:</b> The ML model offers accurate, interpretable DFS prediction in MIBC and may enhance clinical decision-making in surveillance and risk stratification.</li> </ul> |

# Strategic Insights and Strategy Development is our focus



COMPETITIVE STRATEGY  
AND INTELLIGENCE



DIGITAL HEALTH, ARTIFICIAL  
INTELLIGENCE AND IoE



GENE & CELL THERAPY



VACUINES & INFECTIOUS  
DISEASES



INVESTMENT INSIGHTS

e: [INFO@LQVENTURES.COM](mailto:INFO@LQVENTURES.COM)

w: [WWW.LQVENTURES.COM](http://WWW.LQVENTURES.COM)