Expanding Use of Trimodal Therapy in Muscle-Invasive Bladder Cancer

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Have You Read?
--- AUA TAKE 5 ---

**THE TOP 5 AUA HAPPENINGS THIS MONTH!**

1. Have you read the latest issue of *UrologyHealth extra* magazine? Learn how summer travel and exercise can impact your urinary system. Read the full issue! [UrologyHealth.org/UHe](https://doi.org/10.1097/JU.00000000000002840)

2. The Editorial Board of *The Journal of Urology* mourns the loss of fellow editor, outstanding reviewer, and trusted friend, Dr. Douglas Canning. Please read a tribute to Dr. Canning and his many personal and professional contributions.

3. Catch up on AUAnet.org/AUA2022 content, now streaming on-demand through August 31. [AUAnet.org/AnnualMeeting](https://www.auanet.org)

4. New 2023 Boston Scientific Medical Student Innovation Fellowship award! Made possible through support from Boston Scientific, this award provides a 12-month fellowship to current or matriculating medical students interested in translating urology research into innovation by engaging them in a fellowship mentored by world-class urologic scientists. [AUAnet.org/Innovation2023](https://www.auanet.org)

“Among the most consistently utilized bladder sparing approaches is trimodal therapy (TMT), which includes maximal transurethral resection of visible bladder tumor followed by radiotherapy in conjunction with radiosensitizing chemotherapy regimens.”

Although radical cystectomy (RC) remains the most common treatment approach for patients with nonmetastatic muscle-invasive bladder cancer (MIBC), the competing risks of bladder cancer patients present challenges to this management strategy. With an average age of 73 years and high likelihood of comorbidities at diagnosis, RC (and the significant perioperative morbidity and mortality that come with it) may not be the appropriate treatment option for some MIBC patients after shared decision making. Consequently, bladder sparing approaches that offer the promise of limiting morbidity and maximizing quality of life continue to garner interest from patients both fit and unfit for surgery.

Among the most consistently utilized bladder sparing approaches is trimodal therapy (TMT), which includes maximal transurethral resection of visible bladder tumor followed by radiotherapy in conjunction with radiosensitizing chemotherapy regimens. Generally accepted criteria for surgically fit patients suitable for this approach include those with small (<4–7 cm) unifocal tumors, well-functioning bladders and an absence of obvious extravesical extension, carcinoma in situ or hydronephrosis. Although stringent, it is estimated that approximately 1 out of every 5 MIBC patients meets these criteria.

To date, randomized comparisons of TMT to RC are unavailable and are unlikely to be undertaken in the wake of SPARE, a phase III randomized controlled trial which launched in 2007 and prematurely closed due to poor accrual. Comparative outcomes are therefore limited to observational studies with conflicting results. In a recent systematic review of 12 retrospective single-center and population-based studies, overall survival outcomes varied significantly. Meta-analysis of the included single-center studies showed a non-statistically significant advantage for TMT while the pooled estimate after adding the population-based studies favored RC. These findings were recently challenged by abstract data from a multicenter retrospective 3:1 matched comparison analysis of TMT (282) and RC (834) showing no difference in 5-year metastasis-free survival between treatments (78% vs 79%, p = 0.07) and a statistically significant cancer-specific and overall survival advantage in those treated with TMT (85% vs 78%, p = 0.02; 78% vs 70%, p <0.001, respectively). Furthermore, only 13% of patients undergoing TMT required salvage cystectomy for treatment failure or toxicity. As always, cautious interpretation of these findings is warranted. The discrepancy between an insignificant difference in 5-year metastasis and a significant difference in cancer mortality between treatment groups raises concern for errors in classifying cause of death. Intuitively, it would be unlikely for a patient to have a cancer-related death that was not in the setting of metastasis. Similarly, the risk of death once metastases are present is likely to be similar regardless of the modality of localized treatment. While the similar observed efficacy is promising, further methodological detail is needed prior to applying these findings.

In addition to the heterogeneity of clinical stage and patient comorbidity and performance status that exist in these studies, there are several additional limitations important to consider when attempting to translate these data into clinical practice. First, a standard definition of TMT is lacking. Radiotherapy target volumes and fractionation vary in the literature. Similarly, while cisplatin-based regimens, gemcitabine monotherapy, or combination fluorouracil and mitomycin C are most common, there is lack of consensus on which radiosensitizing chemotherapy regimen to employ or how to employ it (ie split course vs continuous course). Inclusion of neoadjuvant or adjuvant therapies to these treatments leads to even greater heterogeneity. Second, each of the 3 components of TMT requires skilled specialists to maximize outcomes. The quality of transurethral resection of bladder tumor, radiation planning, surveillance and chemotherapy management likely vary depending on the provider and introduce further unmeasured confounding. Finally, the criteria for continuing with TMT and management of progression vary between centers. For example, in an analysis of long-term outcomes in patients treated with TMT at Massachusetts General Hospital, a restaging post-induction transurethral resection of bladder tumor was performed. Patients without a complete response were recommended to receive immediate RC (which was performed in 17% of all patients) instead of finishing the remaining consolidation treatment doses. Understanding the impact of such protocol variations on outcomes is critical.

Lack of data describing long-term functional outcomes and treatment toxicity present additional challenges to shared decision making. Current literature would suggest that late severe toxicities such as end stage bladder and surgically managed bowel complications are rare (1%-3%) and post-treatment quality of life is at least comparable to RC. However, the paucity of these data beyond 15 years, including the understudied possibility of secondary malignancy, makes evaluations of the appropriateness of TMT in younger populations with longer life expectancies challenging.

Finally, the impact of these treatment approaches on the healthcare system as well as patients’ finances must be considered. In an analysis of 2,963 patients included in the Surveillance, Epidemiology, and End Results-Medicare linked database, median total costs were significantly higher for TMT compared to RC resulting in nationwide excess spending of $468 million. The extent to which patients are responsible for this added cost is unknown, but there is a clear need for further evaluation of potential financial toxicity that may influence treatment choice and regret in this population.

Utilization of TMT among other bladder sparing approaches is anticipated to grow as advancements occur. There are currently over half a dozen clinical trials evaluating the potential value of adding immune checkpoint inhibitors to TMT regimens. Biomarker directed therapy, application of novel intravesical drug delivery systems (such as TAR-200), advancements in disease imaging and higher precision radiotherapy technology are just a few of the potential innovations that hold promise for continued improvement of oncologic outcomes and toxicity profiles associated with TMT.

The demographics, comorbidities, and preferences of these MIBC patients along with promising oncologic outcomes are the driving force behind TMT’s expanded use. However, the emergence of improved long-term evaluations of toxicity and quality of life in the context of oncologic outcomes and economic considerations are needed to understand which patients are most
Emerging Role of Mobile and Smart Technology in the Prevention of Stone Disease

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Introduction
Nephrolithiasis is an increasingly common medical condition, affecting nearly 1 in 11 people in the United States. The cornerstone of stone prevention is dietary and medical management. Advances in technology over the last decades have revolutionized how kidney stones are diagnosed and treated. Likewise, there has been an emergence of mobile and physical technology aimed at preventing stone disease.

Technologies to Increase Fluid Consumption
One of the tenets in the prevention of stone disease is increasing fluid intake. The AUA recommends an intake of enough fluid to produce ≥2.5 L urine daily; however, the adherence to this recommendation among patients is only 50%. Interventions such as instruction and self-monitoring with urine dipsticks or measuring urine volumes have been shown to increase fluid intake behaviors of patients. Mobile health technologies may help overcome one of the common barriers, namely remembering to drink. There are over 50 applications in the Apple App Store that specifically target hydration. Most of these apps can provide notification reminders, keep a log of daily fluid intake and/or allow the user to set goals for their intake (see Table).

High-quality evidence to evaluate the effect of mobile applications on patient outcomes in urology is lacking. However, one group assessed the currently available applications using a standardized mobile health application rating system and ranked the available applications using this schema. One of the limitations of mobile applications is the burdensome task of manually entering fluid intake. The integration of smart devices such as wearables and water bottle technology has emerged as a solution to this challenge.

One product is the HidrateSpark water bottle (Hydrate Inc., Minneapolis, Minnesota; see Figure). The device has an internal sensor that can calculate volume measurements by detecting changes in water level, which are then sent to the user’s smartphone. A randomized trial found that this device led to a significant increase in urine volume compared to dietary counseling alone. Other smart water bottles include the H2OPal (Out of Galaxy Inc., Wilmington, Delaware) and the Thermos® Smart Lid (Thermos LLC, Schaumburg, Illinois). In comparison testing, the HidrateSpark and H2OPal had

Table. Top rated (by mobile app rating scale score) applications for fluid and dietary management application

<table>
<thead>
<tr>
<th>Rank</th>
<th>App (Fluid)</th>
<th>Cost</th>
<th>Mean Score</th>
<th>App Store Ratings</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fluid:</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>WaterMinder</td>
<td>$5.99</td>
<td>4.78</td>
<td>20,959 Ratings, 4.8 stars. Editor’s choice and #10 on Health and Fitness</td>
</tr>
<tr>
<td>2</td>
<td>Water Reminder—Daily Tracker</td>
<td>Free (in-app purchases)</td>
<td>4.4</td>
<td>39,751 Ratings, 4.7 stars</td>
</tr>
<tr>
<td>3</td>
<td>Plant Nanny 2</td>
<td>Free (in-app purchases)</td>
<td>4.22</td>
<td>70,312 Ratings, 4.7 stars</td>
</tr>
<tr>
<td>4</td>
<td>Drink Water Reminder, Tracker</td>
<td>Free (in-app purchases)</td>
<td>4.19</td>
<td>134,931 Ratings, 4.5 stars</td>
</tr>
<tr>
<td>5</td>
<td>BeWet</td>
<td>Free (in-app purchases)</td>
<td>3.96</td>
<td>33,100 Ratings 4.7 stars</td>
</tr>
<tr>
<td>Dietary:</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>Stone MD</td>
<td>Free (in-app purchases)</td>
<td>3.80</td>
<td>23 Ratings, 4.2 stars</td>
</tr>
<tr>
<td>2</td>
<td>oxaBrow</td>
<td>$4.99</td>
<td>3.73</td>
<td>5 Ratings, 2.6 stars</td>
</tr>
<tr>
<td>3</td>
<td>OxiPur</td>
<td>Free (in-app purchases)</td>
<td>3.52</td>
<td>266 Ratings, 4.5 stars</td>
</tr>
<tr>
<td>4</td>
<td>Reduce Stones</td>
<td>Free (in-app purchases)</td>
<td>3.48</td>
<td>N/A</td>
</tr>
<tr>
<td>5</td>
<td>Kidney Stone Symptoms &amp; Treatment</td>
<td>Free (in-app purchases)</td>
<td>3.30</td>
<td>N/A</td>
</tr>
</tbody>
</table>

Adapted from Winoker et al.®, N/A, not applicable.

Figure. HidrateSpark PRO image. Image from Hydrate Inc.
EMERGING ROLE OF MOBILE AND SMART TECHNOLOGY

Continued from page 4

… the best accuracy. The Prevention of Urinary Stones with Hydration (PUSH) trial is an ongoing study that utilizes wireless-enabled smart water bottles to monitor daily fluid intake and to provide reminders, weekly summary of intakes, as well as financial incentives to participants. The study will be looking at the effect of these interventions on the progression of stone disease.

Technologies to Improve Adherence to Dietary and Medication Recommendations

In addition to increased fluid intake, dietary changes and medication are important to decrease recurrent stone events. There are currently more than one hundred diet-related applications on the market. The most popular is MyFitnessPal™ (MyFitnessPal Inc, San Francisco, California), which has a large database of foods and their associated calories and other nutrients. For kidney stone patients, these apps allow for careful tracking of calories, sodium and calcium intakes (see Table). Even as early as 2013, a review identified 44 apps specific to urolithiasis. Only 2 of these apps provided a way of recording daily calcium intake, and 6 provided dietary advice. While these particular apps have not been validated for clinical effectiveness, Lange and colleagues demonstrated that an Internet program that provides dietary advice and allows users to log daily food intake with immediate feedback on compliance led to significantly reduced oxalate excretion on 24-hour urine analyses.

Adherence to medical therapy recommendations among kidney stone patients is associated with decreased odds of future stone events but is low at around 50%. Mobile applications that provide medication reminders may prove to be beneficial in stone formers. The most popular of these is Medisafe (MediSafe Inc., Boston, Massachusetts). With millions of users, it offers the ability to schedule medications, provide reminders, share data with family and physicians, and assess adherence. It is important to note that there are no studies currently validating these applications for the efficacy of kidney stone prevention or medication adherence.

Conclusion

The rapidly growing field of mobile health and smart technology has many applications in helping patients prevent the recurrence of stone disease. These include software applications to improve fluid intake, diet and medication adherence. Additionally, the integration of hardware technologies such as smart water bottles and wearables can further improve the ability to provide timely and effective reminders. As we are surrounded by more smart devices, the future of this technology relies on integration between the phone, the wearable, the water bottles and the physician’s office.

MEN LIVED 2X LONGER WITHOUT CANCER SPREADING1,2
40.4 months vs 18.4 months for ADT alone
HR: 0.41, 95% CI: 0.34-0.50, p=0.0001 (intent-to-treat)

REduced RISK OF DEATH BY NEARLY A THIRD1,3
31% reduction in the risk of death vs ADT alone
Secondary endpoint: HR: 0.69, 95% CI: 0.53-0.88; p=0.003 Medians not estimable

INDICATION
NUBEQA® (darolutamide) is an androgen receptor inhibitor indicated for the treatment of patients with non-metastatic castration-resistant prostate cancer.

IMPORTANT SAFETY INFORMATION

Embryo-Fetal Toxicity: Safety and efficacy of NUBEQA have not been established in females. NUBEQA can cause fetal harm and loss of pregnancy. Advise males with female partners of reproductive potential to use effective contraception during treatment with NUBEQA and for 1 week after the last dose.

Adverse Reactions
Serious adverse reactions occurred in 25% of patients receiving NUBEQA and in 20% of patients receiving placebo. Serious adverse reactions in ≥1% of patients who received NUBEQA were urinary retention, pneumonia, and hematuria. Overall, 3.9% of patients receiving NUBEQA and 3.2% of patients receiving placebo died from adverse reactions, which included death (0.4%), cardiac failure (0.3%), cardiac arrest (0.2%), general physical health deterioration (0.2%), and pulmonary embolism (0.2%) for NUBEQA.

Adverse reactions occurring more frequently in the NUBEQA arm (≥2% over placebo) were fatigue (16% vs 11%), pain in extremity (6% vs 3%) and rash (3% vs 1%).

Clinically significant adverse reactions occurring in ≥2% of patients treated with NUBEQA included ischemic heart disease (4.0% vs 3.4% on placebo) and heart failure (2.1% vs 0.9% on placebo).

Drug Interactions
Effect of Other Drugs on NUBEQA – Combined P-gp and strong or moderate CYP3A4 inducers decrease NUBEQA exposure, which may decrease NUBEQA activity. Avoid concomitant use.

Combined P-gp and strong CYP3A4 inhibitors increase NUBEQA exposure, which may increase the risk of NUBEQA adverse reactions. Monitor more frequently and modify NUBEQA dose as needed.
Adverse reactions occurring more frequently in the NUBEQA arm (≥2% over placebo) were fatigue (16% vs 11%), pain in extremity (6% vs 3%) and rash (3%).

Serious adverse reactions occurred in 25% of patients receiving NUBEQA and in 20% of patients receiving placebo. Serious adverse reactions in NUBEQA included: bladder cancer (0.4%), cataract (0.3%), postoperative nausea/vomiting (1.4%), venous thromboembolism (0.8%), and adynamic ileus (0.2%).

Combined P-gp and strong CYP3A4 inhibitors increase NUBEQA exposure, which may increase the risk of NUBEQA adverse reactions. Monitor more frequently for adverse reactions and consider dose reduction of these substrates.

Drug Interactions (cont’d)
Effects of NUBEQA on Other Drugs – NUBEQA inhibits breast cancer resistance protein (BCRP) transporter. Concomitant use increases exposure (AUC) and maximal concentration of BCRP substrates, which may increase the risk of BCRP substrate-related toxicities. Avoid concomitant use where possible.

NUBEQA inhibits OATP1B1 and OATP1B3 transporters. Concomitant use may increase plasma concentrations of OATP1B1 or OATP1B3 substrates. Monitor more frequently for adverse reactions and consider dose reduction of these substrates.

Review the prescribing information of drugs that are BCRP, OATP1B1, and OATP1B3 substrates when used concomitantly with NUBEQA.

Metastasis-free survival (MFS) was the primary endpoint, and overall survival (OS) was a key secondary endpoint.1

*Time to pain progression was defined as at least a 2-point worsening from baseline of pain score on BPI-SF (a validated health-related quality-of-life instrument) or initiation of opioids and reported in 28% of all patients on study.

Study design
The efficacy and safety of NUBEQA were assessed in a randomized, double-blind, placebo-controlled phase III study (ARAMIS) in nmCRPC patients on ADT with a PSA doubling time ≤10 months. 1,501 patients were randomized 2:1 to 600 mg NUBEQA twice daily (n=955) or placebo (n=546). MFS was defined as time from randomization to time of first evidence of BICR-confirmed distant metastasis or death from any cause ≤33 weeks after the last evaluable scan, whichever occurred first. Treatment continued until radiographic disease progression, as assessed by CT, MRI, 18F-fluorodeoxyglucose positron emission tomography, bone scan by BICR, unacceptable toxicity, or withdrawal.1,2

NUBEQA®, NUBEQAHCP.COM

Drug Interactions (cont’d)
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NUBEQA inhibits OATP1B1 and OATP1B3 transporters. Concomitant use may increase plasma concentrations of OATP1B1 or OATP1B3 substrates. Monitor more frequently for adverse reactions and consider dose reduction of these substrates.

Review the prescribing information of drugs that are BCRP, OATP1B1, and OATP1B3 substrates when used concomitantly with NUBEQA.

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ADT=androgen deprivation therapy; HR=hazard ratio; CI=confidence interval; BPI-SF=brief pain inventory short form; PSA=prostate-specific antigen; BICR=blinded independent central review; CT=computed tomography; MRI=magnetic resonance imaging.

Please see the following page for the brief summary of Prescribing Information.
NUBEQA* (darolutamide) tablets, for oral use

Initial U.S. Approval: 2019

BRIEF SUMMARY OF PRESCRIBING INFORMATION CONSULT PACKAGE INSERT FOR FULL PRESCRIBING INFORMATION

1 INDICATIONS AND USAGE
NUBEQA is indicated for the treatment of patients with non-metastatic castration-resistant prostate cancer (mCRPC).

4 CONTRAINDICATIONS
None.

5 WARNINGS AND PRECAUTIONS
5.1 Embryo-Fetal Toxicity
The safety and efficacy of NUBEQA have not been established in females. Based on its mechanism of action, NUBEQA can cause fetal harm and loss of pregnancy when administered to a pregnant female [see Clinical Pharmacology (12.1)]. Advise males with female partners of reproductive potential to use effective contraception during treatment and for 1 week after the last dose of NUBEQA [see Use in Specific Populations (8.3, 8.5)].

6 ADVERSE REACTIONS
Because clinical trials are conducted under widely varying conditions, adverse reaction rates observed in the clinical trials of a drug cannot be directly compared to rates in the clinical trials of another drug and may not reflect the rates observed in practice.

ARMS, a randomized (2:1), double-blind, placebo-controlled, multi-center clinical study, enrolled patients who had non-metastatic castration-resistant prostate cancer (mCRPC). In this study, patients received either NUBEQA at a dose of 600 mg, or a placebo, twice a day; All patients in the ARMS study received a concurrent gonadotropin-releasing hormone (GnRH) analog or had a bilateral orchectomy. The median duration of exposure was 14.8 months (range 0.6 to 44.3 months) in patients who received NUBEQA. Overall, serious adverse reactions occurred in 25% of patients receiving NUBEQA and in 20% of patients receiving placebo. Significant adverse reactions in ≥1% of patients who received NUBEQA included urinary retention, pneumonia, and hematuria. Overall, 3.9% of patients receiving NUBEQA and 3.2% of patients receiving placebo died from adverse reactions, which included death (0.4%), cardiac failure (0.3%), cardiac arrest (0.2%), general physical health deterioration (0.2%), and pulmonary embolism (0.2%) for NUBEQA. Permanently discontinued due to adverse reactions occurred in 9% of patients receiving NUBEQA or placebo. The most frequent adverse reactions requiring permanent discontinuation in patients who received NUBEQA included cardiac failure (0.4%), and death (0.4%).

Seven percent of patients treated with NUBEQA had at least one adverse reaction that led to discontinuation of treatment. NUBEQA was associated with an increase in the number of neutrophil counts. In patients with neutrophil counts decreased, NUBEQA was associated with an increase in neutrophil counts. NUBEQA was associated with an increase in AST levels. NUBEQA was associated with an increase in Bilirubin levels.

7 DRUG INTERACTIONS
7.1 Effect of Other Drugs on NUBEQA
CYP3A4 and P-gp substrates: NUBEQA is a CYP3A4 and P-gp inhibitor. Advise caution when co-administered with drugs known to inhibit CYP3A4 and P-gp (e.g., atorvastatin, midazolam, and simvastatin).

7.2 Effects of NUBEQA on Other Drugs
Breast Cancer Resistance Protein (BCRP) and Organic Anion Transporting Polypeptide (OATP) 1B1 and 1B3 Substrates: NUBEQA is an inhibitor of BCRP transporter. Concomitant use of NUBEQA increases the AUC of androgens, such as estradiol, and BCRP substrates [see Clinical Pharmacology (12.3)], which may increase the risk of BCRP substrate-related toxicity.

7.3 Pharmaceutical Administration
Review the prescribing information of the BCRP, OATP1B1, and OATP1B3 substrates when used concomitantly with NUBEQA.

8 USE IN SPECIFIC POPULATIONS
8.1 Pregnancy
Risk Category C
The safety and efficacy of NUBEQA have not been established in females. Based on its mechanism of action, NUBEQA can cause fetal harm and loss of pregnancy [see Clinical Pharmacology (12.1)]. Animal embryo-fetal development toxicity studies were not conducted with darolutamide. There are no human data on the use of NUBEQA in pregnant females.

8.2 Lactation
Risk Category C
The safety and efficacy of NUBEQA have not been established in females. There are no data on the presence of darolutamide or its metabolites in human milk, the effect on the breastfed child, or the effect on milk production.

8.3 Females and Males of Reproductive Potential
Contraception
Men:
Based on the mechanism of action, advise male patients with female partners of reproductive potential to use effective contraception during treatment and for 1 week after the last dose of NUBEQA [see Use in Specific Populations (8.3, 8.5)].

Women:
Based on animal studies, NUBEQA may impair fertility in males of reproductive potential [see Nonclinical Toxicology (13.1)].

8.4 Pediatric Use
Safety and effectiveness of NUBEQA in pediatric patients have not been established.

8.5 Geriatric Use
Of the 954 patients who received NUBEQA in ARMS, 88% of patients were 65 years and over, and 49% were 75 years and over. No overall differences in safety or efficacy were observed between these patients and younger patients.

8.6 Renal Impairment
Patients with severe renal impairment (eGFR 15–29 mL/min/1.73 m²) who are not receiving hemodialysis have been included in the NUBEQA and reduction of the dose is recommended [see Dosage and Administration (2.5) and Clinical Pharmacology (12.3)]. No dose reduction is needed for patients with mild or moderate renal impairment (eGFR 30–49 mL/min/1.73 m²). The effect of end stage renal disease (eGFR ≤15 mL/min/1.73 m²) on darolutamide pharmacokinetics is unknown.

8.7 Hepatic Impairment
Patients with moderate hepatic impairment (Child-Pugh Class B) have a higher exposure to NUBEQA and reduction of the dose is recommended [see Dosage and Administration (2.6) and Clinical Pharmacology (12.3)]. No dose reduction is needed for patients with mild hepatic impairment. The effect of severe hepatic impairment (Child-Pugh Class C) on darolutamide pharmacokinetics is unknown.

9 OVERDOSAGE
There is no known specific antidote for darolutamide overdose. The highest dose of NUBEQA studied clinically was 900 mg twice daily, equivalent to a total daily dose of 1400 mg. No dose limiting toxicities were observed with 12,000 mg.

10 PATIENT COUNSELING INFORMATION
Advising patients to take the FDA-approved patient labeling (Patient Information) Dosage and Administration
Inform patients receiving concurrent gonadotropin-releasing hormone ( GnRH) analog therapy that they need to maintain this treatment during the course of treatment with NUBEQA.

Instruct patients to take their dose of two tablets (twice daily). NUBEQA should be taken with food. Each tablet should be swallowed whole.

Inform patients that in the event of a missed daily dose of NUBEQA, to take any missed dose, as soon as they remember prior to the next scheduled dose, and not to take two doses together to make up for a missed dose [see Dosage and Administration (7.1)].

Embryo-Fetal Toxicity
Inform patients that NUBEQA can be harmful to a developing fetus and can cause loss of pregnancy [see Use in Specific Populations (8.1, 8.3)].

Reproductive
Advise male patients that NUBEQA may impair fertility [see Use in Specific Populations (8.3)].

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Examining the Impact of Private Equity Investment in Urology

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Mirroring broader trends in health care, urology practices have undergone substantial consolidation over the past several decades.1 The latest trend in practice consolidation has been the development of private equity (PE)-backed urology platforms, which differ from prior consolidations in their scale and market power.2 Although there is no singular strategy, PE firms have historically used capital raised from institutional investors to institute “buy-and-build” strategies, partnering with a large regional practice to form a platform and subsequently build market influence through acquisition of smaller practices. Since 2016, PE-backed platforms have achieved significant regional and national market power, with some platforms achieving over a quarter of the urology workforce share within some states and others spanning multiple noncontiguous states.3 As of June 2022, 6 PE-affiliated platforms have developed across 16 states (see Figure).3 Recently, the first urology platform sale occurred in January 2022 with the sale of a large urology practice to a multispecialty group.4 It remains to be seen how other PE firms will “exit” the urology space over the next few years, but already, PE investments are beginning to make an imprint on the practice of urology.

Changes to the consolidation landscape raise questions about how PE’s growth in urology could impact how care is delivered. Specifically, does PE acquisition lead to increasing patient volume and health care expenditure? Using publicly available Medicare data, we sought to examine changes to patient volume and revenue following PE acquisition as well as the impact on urologists not affiliated with PE-acquired practices within the same states.2 We found that following PE acquisition, there was the suggestion of increasing inflation-adjusted Medicare payments (11.0%, 95% CI: −0.2%–22.3%; p = 0.054) and a significant 12.5% increase in patient volume (95% CI: 6.5%–18.6%; p < 0.001). In comparison, geographically similar non-PE-affiliated urologists experienced a 6.0% decline in inflation-adjusted Medicare payments (95% CI: 2.8%–9.2%; p < 0.001) and a 2.7% increase in patient volume (95% CI: 0.4%–4.9%; p = 0.02) within the same time period.

Interestingly, we found that patterns were diverging between practices that were acquired by PE platforms in the years before consolidation occurred. Urologists in practices acquired by PE had increasing Medicare payments preceding acquisition, while non-PE urologists declined slowly over time. With respect to volume, PE-affiliated urologists had higher Medicare patient volume and exhibited greater volume growth, with the gap widening between PE and non-PE urologists across the study period. Importantly, the observation that changes predicated PE affiliation indicates that we cannot necessarily attribute their existence to acquisition but might provide insights into performance leading up to acquisition.

Inroads into urology by PE may also impact economically vulnerable patients, particularly Medicaid-insured individuals.5 To assess how urological care access differs between PE-affiliated and non-PE-affiliated practices, our team performed an appointment audit study to learn about availability for a simulated patient with hematuria seeking care.6 We found that PE-affiliated practices had significantly lower Medicaid appointment availability than non-PE-affiliated practices (52.1% vs 66.8%, p = 0.003). Although we did not find differences in appointment wait times for the insurance types, we did find that PE-affiliated offices offered shorter mean wait times than non-PE-affiliated offices (17.5 vs 21.4 days, p = 0.017). In a multivariable model, state Medicaid expansion versus Medicaid nonexpansion: OR 2.20; CI 1.14–4.28; p = 0.020 and PE affiliation (OR 0.55; CI 0.37–0.83; p = 0.004) were associated with Medicaid access. Because we could not assess patient access rates prior to PE investment, these differences cannot be attributed to the impact of PE investment but nonetheless do provide a contemporary estimate of access.

With the availability of capital and opportunities to consolidate in new markets, PE acquisition of urology practices is likely to continue. Looking ahead, some of most urgent questions will be the larger impact on health care quality. Evidence outside of urology appears to show mixed results.6,7 However, there is also enormous and yet unmet potential for innovation and optimization.8,9 Lastly, as PE firms begin to exit the urology space, there are ongoing opportunities to examine employment opportunities, physician autonomy and access.

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Geographic Distribution Private Equity Affiliated Urology Platforms

Figure 1. Geographic distribution of PE urology platforms in 2022.

Ureteral Stricture after Urinary Diversion: A Vexing Problem for Surgeons and Patients

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Radical cystectomy with urinary diversion is part of the treatment paradigm for muscle-invasive bladder cancer. Cystectomy is also increasingly used as part of extirpative surgery for nongenitourinary pelvic malignancies and is a treatment for severe overactive bladder, obstructed bladder outlet or severe urinary incontinence. Even though cystectomy has a high rate of surgical complications, most patients do well after urinary diversion. A small subset of patients, however, develop ureteroenteric strictures (UES), which can lead to multiple future interventions. In the setting of new UES, malignancy should always be ruled out with either an endoscopic or percutaneous biopsy. If present, further surgery including distal ureterectomy or salve radiation therapy is an option.

UES occur in less than 10% of patients after urinary diversion. Common causes of UES include vascular ischemia, as is often the case after mobilization of the left ureter, infection or stones. Radiation therapy, either pre- or post-diversion, has classically been thought to be an additional risk factor likely due to radiation-induced vascular ischemia. A recent study of 2,988 patients found a UES rate of 4% at a median followup of 32 months. Higher BMI, ASA score, presence of lymph node positivity and 30-day complications were associated with UES formation. Interestingly, this study found that previous abdominal surgery was the strongest risk factor with a UES rate of 9.3% compared to a rate of 1.9% at 10 years for those without previous abdominal surgery. UES can be asymptomatic and found on surveillance imaging. Alternatively, UES can present with pyelonephritis, flank pain, abdominal pain sometimes associated with a urinoma, or any signs of infection. If suspicion is high, a renal sonogram is often the first diagnostic modality, and if hydrenephrosis is present, an upper tract imaging study such as a CT urogram is the next step. MRI or noncontrast imaging can be used if kidney function is impaired.

After UES are identified, shared decision making is paramount to determine if the UES need to be treated. Asymptomatic UES can be left untreated as long as the patient is aware that the involved kidney will likely lose function over time. This may not be a reasonable option for patients who have a likelihood of needing further chemotherapy for malignancy because of possible nephrotoxicity of chemotherapy.

Once a decision to treat has been made, the initial management consists of draining the affected renal unit. A percutaneous nephrostomy is often the treatment of choice because a dilated collecting system makes percutaneous access easy. A stent can then be attempted via an antegrade approach. Accessing the upper tract from the urinary diversion is often difficult due to variability of the location of the ureteral anastomosis and mobility of the enteric segment of the diversion. If feasible, however, a stent can be placed retrograde. An ideal conduit urinary diversion allows for the placement of an “up-side-down nephroureteral tube,” which is a stent with I curled end in the kidney and the other end, usually without a curl, through the conduit and into the urostomy bag. Stents need to be exchanged on a regular schedule. A stent through an ileal conduit into the stoma can be exchanged without anesthesia. Some patients are comfortable with stents and can be managed indefinitely with routine stent exchanges.

Definitive endoscopic management can be attempted, particularly for stricture less than 1 cm in length. Endoscopic management includes balloon dilation or endoluminal incision of the stricture either via a laser or electrotherapy. A cutting balloon catheter (“acu-size”) should be used with caution, particularly for left-sided UES because of the proximity to the iliac vessels. As in the placement of stents, an antegrade approach via a percutaneous route is preferred, but a retrograde approach via the ureteral stricture can be employed by experienced practitioners. A stent is usually left in place for a few weeks after dilation or incision of the UES. Balloon dilation succeeds in less than 40%, while endoluminal incision is successful in approximately 60% of patients. If endoscopic management fails or patients have UES not amenable to endoscopic treatment, ureteral reconstruction can be performed. It is important to know the details of the original urinary diversion when planning a ureteral reconstruction for UES. Most urinary diversions consist of separate ureteroenteric anastomosis (Bricker), but the common tunnel approach (Wallace) has become more common with newer robotic techniques likely because of decreased operative time and possible decreased UES rates.

“Most urinary diversions consist of separate ureteroenteric anastomosis (Bricker), but the common tunnel approach (Wallace) has become more common with newer robotic techniques likely because of decreased operative time and possible decreased UES rates.”

Open ureteral reimplantation remains the standard option for definitive repair and is successful in over 80% of patients but involves a laparotomy and is therefore associated with relatively high morbidity. The operation itself is straightforward and involves identification of the involved ureter and its insertion into the urinary diversion. A catheter placed into an orthotopic neobladder, into the ileal conduit or through the afferent limb of a continent cutaneous diversion can aid in identifying the urinary diversion. Once the enteric segment of the diversion has been identified, the dissection can be limited to the area of the involved ureteroenteric anastomosis. This is particularly relevant for continent cutaneous diversions, where the pouch might involve a large portion of the abdomen but the ureteral anastomosis can be mobilized easily. Reimplantation is performed by resecting the strictured segment of the ureter, spatulating the viable edge of ureter, mobilizing the enteric segment and performing a tension-free new ureteroenteric anastomosis. While stents may not be useful in decreasing ureteroenteric complications after a primary urinary diversion, most surgeons leave a temporary stent in place after reimplant for UES. Robotic approaches are gaining increased visibility and can theoretically be performed in the same manner as an open operation, with the caveat that the field is a reoperated field and it may be difficult to lyse adhesions to allow use of laparoscopic instruments.

Ureteral strictures after urinary diversion remain a bothersome problem for surgeons and patients alike, but can be managed well with a stepwise and graded approach.  

A simple online search for “men’s health clinic” (MHC) reveals the ever-expanding landscape of centers focused on men’s health, each with its own mission and agenda. To those of us vested in providing high-quality evidence-based male-focused health care, an MHC creates a space to provide care directed at the entire man, not just the presenting symptom. Commercially driven entities, conversely, often focus solely on niche sexual or hormonal management, operating in the gray areas of current guidelines. All of these practices carry the MHC label, creating confusion for lay individuals trying to determine the best care for himself or a loved one. This article aims to outline what constitutes a high-quality MHC today and opportunities for the future.

Many articles in the men’s health literature begin with the current life expectancy in the United States: 74.2 years for men and 79.9 years for women as of 2020. This 5-year gender difference has persisted for unknown reasons. Is this an evolutionary fact, or can we question about specific barriers, male focus groups cited practical and emotional aspects including scheduling, convenience, insurance-related issues, general fear and anxiety, and a distrust of the health care system (unpublished data). Separate interviews with loved ones confirmed resistance from male partners for the reasons cited above.

Understanding the male mindset and gender disparities, there is an obvious opportunity for MHCs; however, what constitutes a “high-quality MHC” has yet to be defined, including by our own specialty associations. In preparing this article, I turned to several nationally recognized men’s health leaders for their input. The message was clear: the most important element for a successful MHC is a collaborative multidisciplinary model of care (Fig. 1). This model must be more than multiple clinicians under 1 roof; it should be interactive both in the physical space and virtually through electronic medical record communications and focused multidisciplinary meetings. Providers should believe in the mission rather than check off a box for suggested specialties in an MHC. Ideally the physical location is designed to be comfortable for men with mindful décor and entertainment selections. A consistent reception team will add another layer of patient comfort, especially when asking men to return with often-stigmatized specialties such as mental health. The health care system remains challenging to navigate even within an MHC, and a clinical navigator is another tool leveraged by some successful clinics.

Despite the efforts of many MHCs, there are still significant opportunities for improving and creating new high-quality practices. Continued efforts to break down clinical silos are needed, helping patients and providers understand that presenting problems are not unique to one specialty but instead connect multiple disciplines. For example, the link between erectile dysfunction (ED) and early cardiovascular disease has been well documented for well over a decade, but urology-facing screening strategies to guide appropriate referrals still do not exist. Without a full risk factor assessment, we are left with a gut decision when to refer to preventative cardiology. Mental health is another area that is poorly screened and understood in men’s health, especially among men with ED and Peyronie’s disease. After embedding a psychologist in our practice, we began to realize the depths of distress some patients face, occasionally to the point of suicidality, a scary thought for any clinician. Better screening tools are needed in the form of patient-facing men’s health checklists to screen for preventative health issues including mental health and fit seamlessly into a urological practice.

Additional future opportunities exist in increasing diversity, equity, and inclusion in our men’s health spaces. First, we must continue efforts to increase gender, racial, and ethnic representation and understanding in our own teams. Secondly, concerted efforts are needed to improve our men’s health content—paper, online and social media—so that all of our patients, especially those identifying as LGBTQ+, feel part of the conversation. Further clarity is needed on how gender incongruent patients fit into a men’s health practice and how we can make the nomenclature more inclusive. Our outreach to our communities, lastly, should be equitable. MHCs should have local outreach plans for underserved male populations not within the direct vicinity of the clinic or with limited transportation. Virtual health, ideally with improved cross-state coverage for those needing to travel or living near state lines, can help further reduce physical location barriers to care.

Leadership at a national or international level to carry forward a men’s health agenda is currently lacking. While the National Institutes of Health founded the Office of Research on Women’s Health in 1990, no men’s health equivalent exists at the federal level. Re-
search pertaining to MHCs has also lagged behind our women’s health counterparts (Fig. 2). As a result, commercial MHCs have filled the void with innumerable websites and social media ads promising results with hormonal and ED regenerative treatment options frequently not supported by current guidelines. In a recent “secret shopper” review of 152 U.S. penile shock wave therapy clinics, three-quarters of the clinicians providing experimental ED treatment were nonurologists. Further research is needed to support or refute the efficacy of ED regenerative treatments including penile shock wave therapy, platelet rich plasma injections or stem cell injections. The language describing these treatments as “experimental” or “investigational” in current American Urological Association and Sexual Medicine Society of North America guidelines may drive some overly optimistic men to seek out these treatments over recommended options. A strong national or international voice is needed to lead these and other research efforts, advocate for our male population and educate the next generation of men’s health specialists (Fig. 1).

Men’s health should include all aspects of holistic care but high-quality MHCs have lost ground to commercially driven ventures focusing on profitable areas of male sexual and hormonal medicine. These for-profit clinics or virtual health platforms, many franchised at a national level, have aggressively marketed themselves on the web and social media. Conversely there are many examples of how to provide meaningful men’s health care within an MHC but these spaces tend to exist in isolation. Reputable MHCs, ironically modeled on multidisciplinary care, need to be better aligned and collaborative. Only with a unified and louder voice will we be able to move forward refining male-focused care, creating successful MHC spaces, advancing an advocacy and outreach agenda, and finally closing the life expectancy gender gap. I do not believe it is an evolutionary fact.

Female Urethroplasty with Dorsal Onlay Buccal Mucosal Graft: A Single-Institutional Experience

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Female urethral stricture (FUS) disease is rare, affecting between 4% and 13% of women presenting with bladder outlet obstruction, which is estimated to affect 3%–8% of women. There is often a delay in diagnosis due to lack of consensus on definition, variability in normal female voiding parameters and heterogeneity of presenting symptoms. One of the more concise definitions of FUS is “a symptomatic anatomical narrowing of the female urethra based on direct visualization and/or radiological evidence and/or urethral calibration with the exclusion of other competing etiologies.”

Once the diagnosis is made, dilations are usually the initial treatment, despite poor long-term efficacy. Conversely, in male urethral stricture disease, the urologist is more inclined to recommend urethroplasty due to well-recognized, durable success. Urethroplasty adoption in women has been slow due to a lack of consensus on surgical approach and graft material as well as concerns for complications such as de novo incontinence and fistula. Multiple urethroplasty techniques have been described utilizing flaps or grafts. Most of the literature consists of small case series or descriptive studies.

Using our expertise with male urethroplasty, we extrapolated our preferred dorsal onlay buccal mucosa grafting (BMG) technique to female urethroplasty. We performed a retrospective review of patients undergoing female urethroplasty with BMG at the University of Colorado and Denver Health hospitals between March 2015 and December 2021 by surgeons (BJF and JLO). Surgical technique was similar for both surgeons using a BMG placed via a dorsal curvilinear incision from 10 to 2 o’clock (Fig. 1). A total of 23 patients underwent dorsal onlay BMG urethroplasty and were included in our data analysis. The

Figure 1. Retubularizing urethra after tacking BMG to dorsal tissues.

Figure 2. PubMed® MHC and “women’s health clinic” citation frequency by year.


median age was 50 years. Etiology was primarily idiopathic (19/23). Preoperative stricture workup included cystoscopy (23 patients), uroflowmetry (8), voiding cystourethrogram (3) and/or urodynamics (7) (Figs. 2 and 3). The most common presenting symptoms included irritative voiding symptoms in 15 patients (65%), obstructive symptoms in 12 (52%) and recurrent urinary tract infections in 10 (44%). The median duration of lower urinary tract symptoms prior to urethroplasty was 16 years. Twenty patients (87%) had undergone previous dilations, with a median of 3 operative dilations (range 1–20).

At a median followup of 7.2 months (range 1–81), 4 patients required a secondary procedure for obstruction (urethral dilation or direct visual internal urethroty), with an overall success rate of 83% for patency. Of the patients who developed recurrences, all had had previous dilations, 1 patient had had previous vaginal flap urethroplasty and another had concomitant urethropal vaginal fistula repair. Two patients developed de novo incontinence postoperatively; 1 responded well to an autologous fascia pubovaginal sling and the other responded well to sacral nerve modulation. Two patients developed acute graft donor-site complaints that resolved. One patient had buccal contracture that was being managed conservatively. No patients developed a de novo fistula. The median postoperative maximal flow on uroflowmetry was 15.9 ml/second (range 6.6–26) compared to 10.8 ml/second (2–18.2) preoperatively.

There have been multiple case series describing repair techniques and outcomes. Our recurrence rate (diagnosed by cystoscopy) of 17% and de novo incontinence rate (8.7%) are consistent with the literature. This series adds to the growing body of data on patients with FUS. Dorsal BMG urethroplasty is successful in treating FUS with a low complication rate. It also highlights a known gap in success rates of female BMG urethroplasty compared to male urethroplasty. Research is needed to help understand this gap.

The Role of Genetic Testing in the Treatment of Urinary Stone Disease

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Urinary stones are highly prevalent, affecting approximately 10% of adults worldwide with the incidence appearing to be on the rise. In general, stone formation is felt to result from an imbalance between promoters and inhibitors of crystallization. The underlying cause appears multifactorial and includes environmental, dietary, hormonal and genetic components.

The current availability of high throughput sequencing has enabled studies that suggest up to 30% of pediatric and 10% of adult stone formers might have an underlying monogenic cause, with up to 35 genes implicated to date. In addition, genome-wide association studies suggest that these and other genes may also influence kidney stone risk amongst the general stone forming population. Genetic testing is increasingly available in the clinic, and indeed now similar in cost to many other tests that are frequently ordered (eg sophisticated kidney imaging). The current availability of high throughput sequencing has enabled studies that suggest up to 30% of pediatric and 10% of adult stone formers might have an underlying monogenic cause, with up to 35 genes implicated to date. In addition, genome-wide association studies suggest that these and other genes may also influence kidney stone risk amongst the general stone forming population. Genetic testing is increasingly available in the clinic, and indeed now similar in cost to many other tests that are frequently ordered (eg sophisticated kidney imaging). The Table lists some of the more common monogenic causes of urinary stone disease. Increasingly among these diseases, treatments can be individualized based upon the precise diagnosis, and in some cases these treatments may have a dramatic impact on long-term patient outcome. For example, there is now a U.S. Food and Drug Administration-approved treatment for primary hyperoxaluria type 1, while clinical trials are ongoing for novel approaches to primary hyperoxaluria types 2 and 3. In all cases, making a precise diagnosis will allow the assembly of cohorts of patients with a single diagnosis to allow better understanding of disease pathogenesis and natural history, and eventually test treatment approaches.

Certain features highlight that a monogenic cause of urinary stones might be present (see Figure). These include early onset of stone disease during childhood, multiple recurrent clinical stone events, the presence of nephrocalcinosis, the presence of pathological crystals in the urine (eg cystine, dihydroxyadenine) or other specific clinical features including visual and/or hearing defects. In some cases, a firm clinical diagnosis can be made on biochemical grounds alone (eg cystinuria) while in most cases genetic testing is required to provide a precise diagnosis, since the clinical presentation of patients with many of these monogenic causes of urinary stones can greatly overlap.

Implementing genetic testing in clinical settings presents definite challenges. The typical current approach in routine clinical practice employs a candidate gene panel that only includes known monogenic causes of stones (as opposed to speculative ones). This allows a more straightforward interpretation of the results and increases the likelihood that any genetic findings are clinically relevant. Such urinary stone disease genetic panels are currently offered by multiple clinical testing laboratories. However, continued on page 15

<table>
<thead>
<tr>
<th>Gene</th>
<th>Disease</th>
<th>Possible Therapies</th>
<th>Ongoing Clinical Trials for Novel Approaches</th>
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<td>Hyperhydration, crystallization inhibitors, kidney + liver transplantation</td>
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<td>Hyperhydration, neutral phosphorus, citrate, thiazides</td>
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<td>CYP24A1</td>
<td>Hypercalcemia, hypercalciuria, nephrocalcinosis</td>
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Figure. Clinical and laboratory features that increase the likelihood of an underlying monogenic cause of urinary stone disease. GFR, glomerular filtration rate. APRT, adenine phosphoribosyltransferase. UA, uric acid. PH, primary hyperoxaluria. DNA, dihydroxyadenine.

Table. Standard and novel therapies for monogenic causes of urinary stones and nephrocalcinosis.
ordering and interpreting these genetic panels requires careful planning and forethought. Ideally, the ordering provider should have access to multi-disciplinary colleagues to help with patient counseling and interpretation of the results. All patients should have pretest counseling so that they understand the reason for the testing, the possibility of a negative result and the implications of any positive results. Equally important is interpretation of the genetic results and clearly communicating that back to the patient. This is true whether a clearly pathogenic change in a specific gene is identified, or if one or more variants of uncertain significance is reported. In certain cases, followup studies including testing in family members may be helpful or indicated. Often, patients with a potential genetic cause of their urinary stone disease could benefit from referral to a tertiary center with clinical experience and/or ongoing research of that disease.

We have already entered the era where genetic testing can improve the care of a sizable subset of patients with urinary stone disease. Thus, it becomes imperative for providers caring for these patients to understand the role for genetic testing in the clinic, and develop appropriate workflows for obtaining it, interpreting it, and using it to improve patient care.


THE ROLE OF GENETIC TESTING IN THE TREATMENT OF URINARY STONE DISEASE

Continued from page 14

Continental Urological Management of Men with Persistent Genital Arousal Disorder/Genito-Pelvic Dysesthesia

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Urologists evaluate men with various sexual dysfunctions, including complaints of inability to obtain and/or maintain a satisfactory erection during sexual stimulation. There is, however, a subset of men who have the opposite problem. Such men have a condition of unwanted, unremitting sensations of erection in the absence of sexual desire, thoughts or fantasies. These men may be on the verge of orgasm or experience spontaneous orgasm, often with limited to no resolution and aggravation of symptoms by sexual activity. Symptoms are often provoked by specific circumstances, such as sitting, driving, listening to music, general anxiety, stress or nervousness. This condition is unlike priapism where an unwanted, often painful prolonged erection is observed on physical examination. This condition, termed persistent genital arousal disorder (PGAD)/genito-pelvic dysesthesia (GPD), reveals inconsistent evidence of erection on physical examination. PGAD was first described in women in 2001 but PGAD has been commonly noted in men as well. A recent study assessed the prevalence of PGAD criteria in 2 large, nonclinical samples of Canadian undergraduate students (1,634, Study 1) and a nationally representative sample from the U.S. (1,026, Study 2). It was found that 1.1%–4.3% of men and 0.6%–2.7% of women reported PGAD. This prevalence translates to multiple millions of people who potentially experience PGAD/GPD. Furthermore, PGAD/GPD is often associated with significant, negative psychosocial impact involving depression, emotional lability, catastrophization and/or suicidal ideation. For all these reasons it is important to review the contemporary urological management of men with complaints of PGAD/GPD.

This review examines the case of a male patient with PGAD/GPD who underwent diagnosis and treatment in our sexual medicine facility, with over 3-year treatment followup. The patient, a 38-year-old single male in a monogamous relationship for 10 years, presented to his urologist in 2018 with a 5-year history of feelings of spontaneous genital arousal 24/7, especially in the evening and during the night, making sleep difficult. His internist had treated him with gabapentin, sertraline, alprazolam and amitriptyline with some reduction of dysesthesia symptoms. He constantly felt like he was approaching an orgasm but did not have spontaneous ejaculation. He had symptoms of bladder urgency and frequency. He further complained of urethral discomfort described as increased arousal in the urethra triggered by ejaculation. In addition, he described sharp shooting, burning pains in the penis, perineum, anus, and behind the right and left thigh and calf. Many evenings he experienced a nearly irresistible urge to move his legs, consistent with restless leg syndrome. Of note, he could not spread his toes. The patient noted that his symptoms were made worse with anxiety, vibration from a phone or hair clippers, touching of his nipples, bowel movements and sitting on a hard chair. He had excellent morning erections, with over 3-year treatment in our sexual medicine facility, with over 3-year treatment.

We have already entered the era where genetic testing can improve the care of a sizable subset of patients with urinary stone disease. Thus, it becomes imperative for providers caring for these patients to understand the role for genetic testing in the clinic, and develop appropriate workflows for obtaining it, interpreting it, and using it to improve patient care.


These triggers originate in 1 or more of 5 regions in each PGAD/GPD patient: 1) end organ, 2) pelvis/perineum, 3) cauda equina, 4) spinal cord and/or 5) brain. (Fig. 2)

This PGAD/GPD patient described dysesthesia within the sensory fields of the somatic pudendal nerve (ie penis, perineum, anus), visceral afferent pelvic nerve (ie bladder, urethra) and somatic sciatic nerve (ie right and left thigh and calf). Of note, he experienced issues in the motor field of the sciatic nerve (ie inability to spread the toes and restless leg syndrome). The pudendal, pelvic and sciatic nerves merge at the S2-3 foramina in the cauda equina (region 3), where they coalesce to form the S2-3 sacral nerve roots. These sacral spinal nerve roots ascend to the first synapse in the conus medullaris and, along the way, may be subject to compression or impingement radiculopathies from cauda equina pathologies, such as his L4-5 annular tear (Fig. 1). Thus, based on the patient’s symptoms involving the sensory fields of the pudendal, pelvic, and sciatic nerves and his lumbar MRI, a lumbosacral annular tear-induced sacral radiculopathy was suspected as the primary trigger for his PGAD/GPD.

The urologist can perform minimally-invasive testing to better understand the triggers of PGAD/GPD. Having a multidisciplinary team involving a psychologist, spine surgeon and sexual medicine physician/urologist would facilitate biopsychosocial management. (Fig. 1).

Finally, a pain medicine specialist could perform a diagnostic transforaminal epidural spinal injection of 1 ml of lidocaine under fluoroscopic control into the epidural space at L4-5. This patient experienced 70% resolution of symptoms for 4 hours, consistent with the diagnosis of lumbosacral annular tear-induced sacral radiculopathy. The patient eventually underwent lumbar endoscopic spine surgery and was discharged the same day. He had no postoperative complications. He had immediate reduction of his PGAD/GPD symptoms with marked resolution of his anxiety, bother and distress. After 3 years his patient global impression of improvement score remains “2” (much better).

“Finally, a pain medicine specialist could perform a diagnostic transforaminal epidural spinal injection of 1 ml of lidocaine under fluoroscopic control into the epidural space at L4-5.”

Comparing Pediatric Ureteroscopy Outcomes with SuperPulsed Thulium Fiber Laser and Low-Power Holmium:YAG Laser

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Study Need and Importance

The thulium fiber laser has emerged as an alternative laser lithotripsy technology to the gold standard, holmium:yttrium-aluminum-garnet (Ho:YAG) laser. The SOLTIVE™ SuperPulsed thulium fiber laser (SPTF) was the first platform released in North America and has shown promising clinical results in an adult cohort. No center has reported outcomes in a pediatric cohort. In this single-institution, retrospective cohort study, we aimed to compare the clinical performance of low-power Ho:YAG lasers to the SPTF in matched, unilateral ureteroscopies performed in pediatric patients.

What We Found

Over 5 years, 93 cases were performed with Ho:YAG lasers compared to 32 cases with the SPTF. The observed stone-free rate (SFR) with Ho:YAG lasers was 59% compared to 70% with the SPTF (see Table). Use of the SPTF was associated with 61% lower odds of having a residual stone after ureteroscopy (95% CI: 0.19–0.77, p=0.01). Despite a significantly longer median laser time of 11 minutes with the SPTF compared to 2 minutes with the Ho:YAG lasers, use of the SPTF was not associated with a significant increase in total operative time (p=0.8). The postoperative complication rate was not associated with use of the SPTF (p=0.64).

Limitations

Our study is limited by its single-institution retrospective design, small sample size, loss to followup within a 90-day imaging window and use of multiple imaging modalities to assess stone-free status. Our study abided by the strictest definition of stone-free status and should only be compared to other studies with similar definitions.

Interpretation for Patient Care

Technological evolution should seek to advance patient care outcomes. The SPTF was associated with a higher SFR without compromising safety or operative time when compared to low-power Ho:YAG lasers. Urologists providing care to pediatric patients should consider adopting the SPTF to advance the care of pediatric patients with surgical stone disease.

How Does Health Services Research Inform Neurogenic Bladder Management: “Will I Ever Void Again?”

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Stanford University Medical Center, California

Despite completing 6 years of residency and a subsequent 2-year Female Pelvic Medicine and Reconstructive Surgery fellowship, I often have found that my treatments for neurogenic bladder (NGB) are based on the anecdotal knowledge I have accrued in my 10 years as an attending urologist rather than what can be found in a textbook. To me, health service research, the integration of epidemiology, sociology, economics and other analytical sciences, is a means to identify the scope of patient issues, provide ideas to optimize clinical practices (if not change them completely) and answer unknown clinical questions. In this way, abstract concepts in oft-misunderstood areas (such as NGB care) are made more concrete and inform clinical
practice guidelines (based on the best available evidence combined with expert opinion) for the next generation to build upon.

As the primary urological practitioner who provides NGB care for many patients after discharge from our hospital’s spinal cord injury (SCI) rehabilitation center, a significant portion of my career has been spent serving the SCI population. While the 4Ts (urinary tract infection, urinary incontinence, bladder management independence and bladder management inconvenience) are often a focus in my established patients, the question I am most asked by those with a new SCI is “what is the chance I can urinate on my own again?” For the first several years of my career, I was not able to answer this simple yet life altering question, only knowing that those with less complete injuries were more likely to void over time.

My ability to answer this important question changed in 2016 with the publication of “Prediction of Bladder Outcomes after Traumatic Spinal Cord Injury: A Longitudinal Cohort Study.” In this work, the authors described a robust prediction model of volitional voiding after SCI based on a standard neurological examination grading scale of the L2-S1 myotomes bilaterally (ranging in each myotome from 0—total paralysis to 5—active movement with full range of motion against gravity and full resistance). The corresponding lower extremity motor score (LEM), ranging 0–50, is then used to predict the estimated probability of a return of volitional voiding ranging from 6.7% (LEM=0) to 93.5% (LEM=50; see Figure). The published prediction tool, which was generated using the data of 1,250 patients in the European Multicenter Spinal Cord Injury Study, was subsequently examined by our group using the data of 4,327 patients from the United States National Spinal Cord Injury Database, where we confirmed the almost unheard-of performance of LEM scores to predict volitional voiding (area under the curve=0.912).1

Table. ASIA (American Spinal Injury Association) Impairment Scale and the chance of volitional void at 1-year followup

<table>
<thead>
<tr>
<th>ASIA Impairment Scale</th>
<th>Chance of Volitional Void</th>
</tr>
</thead>
<tbody>
<tr>
<td>A Complete</td>
<td>No motor, no sensory, no sacral sparing</td>
</tr>
<tr>
<td>B Incomplete</td>
<td>No motor below lesion, sensory only</td>
</tr>
<tr>
<td>C Incomplete</td>
<td>50% of muscles less than grade 3 below the lesion (cannot raise arms or legs off bed)</td>
</tr>
<tr>
<td>D Incomplete</td>
<td>50% of muscles more than grade 3 below the lesion (can raise arms or legs off bed)</td>
</tr>
<tr>
<td>E Normal</td>
<td>Motor + sensory function are normal</td>
</tr>
</tbody>
</table>

“Figure. Prediction of volitional void based on LEM scores (adapted).”2

In our latest work using LEM scores to predict chance of volitional voiding, we demonstrated that early infection during the rehabilitation phase after SCI may reduce the chance of volitional void, a finding that hopefully will lead to further investigation on the subject (either basic or clinical science based).”


What We Found

A majority of oncology abstracts presented at the AUA Annual Meeting were published (56.3%), with a shorter median time to publication (1.1 years) compared to abstracts presented at other surgical subspecialty conferences, suggesting strong research questions were presented. Despite a 45% increase in journals indexed by MEDLINE® (from 3,874 in 1997 to 5,617 in 2017), the rates and impact factors of eventual publication remained remarkably consistent within our sample throughout the study period (see Figure). However, over the same period, there was a 96% increase in abstracts (from 634 to 1,244). While the overall rate of publication did not increase as we had hypothesized, the increase in abstracts disproportionate to indexed journals suggests that an increasing number of abstracts were published each year to maintain the same publication rate.

Limitations

This study is limited to abstracts published in urologic oncology and only utilized the MEDLINE database to define publication. To identify the same study over time, it was also assumed that the first and last author of the abstract would be included on the eventual manuscript.

Interpretation for Patient Care

Oncology abstracts presented at the AUA Annual Meeting continue to be of high scientific quality, publishing in reputable journals with a wide audience and broad clinical impact. Authors presenting abstracts at the AUA Annual Meeting remain committed to providing timely, validated research on key urologic oncology advancements for patients and providers.

Figure. Percentage of abstracts published stratified by year of AUA Annual Meeting (linear trend R² <0.0001, p=0.996).

Stress Urinary Incontinence Surgery in Childbearing-Aged Patients

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Stress urinary incontinence (SUI) is the involuntary loss of urine with increased intra-abdominal pressure in the absence of a bladder contraction. Epidemiological studies have shown it to be the most common type of incontinence overall, particularly among young women under age 50. Pregnancy and childbirth are the biggest risk factors for the development of SUI. Several mechanisms of pelvic floor insult have been studied including neural, levator ani and fascial injury. Nonetheless, the pregnancy and childbirth-related mechanism of injury to the pelvic floor directly leading to SUI has not been fully elucidated. The risk of SUI is increased regardless of modality of childbirth; however, vaginal delivery carries a higher risk than cesarean section. The increased risk of SUI with vaginal delivery over cesarean section has been substantiated by a meta-analysis of 15 studies which found a 1.85 increased odds ratio. This has led to the widely held opinion that it is best to postpone surgical treatment for SUI until no future pregnancies are desired or women are post-reproductive age. Furthermore, some obstetricians will recommend elective cesarean section in cases where the patient has previously undergone SUI surgery. However, is this widely held recommendation in fact necessary and are we doing a disservice to patients who are still in their child-bearing years by postponing SUI surgery as a treatment option?

The first question to resolve is to determine the safety of pregnancy after SUI operation. A systematic review included The Journal of Urology® looked at this very question and published their findings in 2012. The review included 20 articles comprising 118 patients who had previously undergone an SUI operation of any kind prior to index pregnancy and delivery. Urinary retention developed during pregnancy in 2 patients, 1 of which subsequently developed pyelonephritis that did not result in a complication of the pregnancy. The authors concluded that there may exist a low risk of urinary retention during pregnancy in patients who have previously undergone SUI surgery. Nevertheless, given the minimal increased risk, sling operation may still be considered appropriate in patients who wish to have children later. In 2016, a retrospective series of 26 patients who had become pregnant and delivered a child after previously undergoing midurethral sling (MUS) operation for SUI found no sling-related pregnancy or childbirth complications.

What about the risk of SUI recurrence and repeat surgery with pregnancy/childbirth after previous SUI surgery? MUSs have been the most extensively studied surgical treatment for SUI. A population-based cohort study from Sweden assessed whether subsequent childbirth affects the outcome of MUS surgery. The primary measure was patient-reported, symptomatic SUI recurrence. The study group consisted of 163 patients who had subsequent childbirth either vaginally or via cesarean section after index MUS surgery. This group was matched by age and year of index MUS surgery to a control cohort of 374 patients who did not have subsequent childbirth after index MUS surgery. There was no significant difference in patient reported recurrent SUI on multivariate analysis between the study and control groups. Furthermore, vaginal delivery as compared to cesarean section did not increase the risk of recurrent SUI. The authors thus concluded that childbirth of any modality is not associated with an increased risk of SUI recurrence after previous MUS surgery.

A similar study out of Finland included 94 study patients and 330 matched controls who had undergone retropubic or transobturator sling. The primary endpoint was incidence of repeat SUI surgery. Comparable to the Swedish study, there was no significant difference in the incidence of repeat SUI surgery performed between the study and control groups. Pregnancy and delivery do not increase the odds for SUI reoperation or SUI revisit.

SUI is the most common pelvic floor complaint in postpartum women. We know that urinary incontinence is distressing and can have detrimental effects on patients’ psychosocial well-being and overall quality of life. Women are also postponing childbirth to later in life. Since age is another notable risk factor for prevalence and severity of incontinence, it is not surprising that the burden of SUI has increased with the trend in delayed childbearing. We are doing a disservice to these patients by insisting they postpone SUI surgery until after childbirth. The evidence suggests that it is safe to proceed with SUI surgery if the patient elects, independent of their future pregnancy plans. Pregnancy is safe after any SUI surgery. After SUI surgery, the incidence of SUI recurrence or reoperation does not appear to increase with subsequent childbirth of any modality. ■

“Since age is another notable risk factor for prevalence and severity of incontinence, it is not surprising that the burden of SUI has increased with the trend in delayed childbearing.”

The Lived Experience of Patients with Adult Acquired Buried Penis

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University of California San Diego

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University of California San Francisco


Study Need and Importance

Adult acquired buried penis (AABP) is a syndrome of penile entrapment associated with obesity. Given the obesity epidemic, this is a disease of increasing importance. We describe the lived experience of adults with AABP though a thematic analysis in combination with quantitative survey instruments to examine the challenges that these patients face and the impacts of surgery.

What We Found

We enrolled 20 patients; 11 had undergone surgical treatment for AABP. The most common themes were problems with urinary and sexual function. Negative impacts on social life, relationships and mental health were also reported. Patients who underwent surgery demonstrated improvement in urinary and sexual function as well as psychosocial health (see Table). Access to reconstructive care was a significant issue for these patients, including insurance coverage, availability of services and knowledge gaps among the referring medical community.

Table. Common issues in buried penis patients (preoperative vs postoperative)

<table>
<thead>
<tr>
<th>Theme</th>
<th>Issues before Surgery? (20 pts)</th>
<th>Discussed Improvement after Surgery? (11 pts)</th>
</tr>
</thead>
<tbody>
<tr>
<td>No.</td>
<td>%</td>
<td>No.</td>
</tr>
<tr>
<td>Urinary issues</td>
<td>19</td>
<td>95</td>
</tr>
<tr>
<td>Sexual function issues</td>
<td>19</td>
<td>95</td>
</tr>
<tr>
<td>Impacting social life</td>
<td>16</td>
<td>80</td>
</tr>
<tr>
<td>Hygiene issues</td>
<td>14</td>
<td>70</td>
</tr>
<tr>
<td>Poor mental health</td>
<td>11</td>
<td>55</td>
</tr>
<tr>
<td>Infections</td>
<td>9</td>
<td>45</td>
</tr>
<tr>
<td>Relationship issues</td>
<td>8</td>
<td>40</td>
</tr>
<tr>
<td>Cosmesis issues</td>
<td>6</td>
<td>30</td>
</tr>
<tr>
<td>Physical issues</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>Mobility</td>
<td>6</td>
<td>30</td>
</tr>
<tr>
<td>Chronic pain</td>
<td>5</td>
<td>25</td>
</tr>
<tr>
<td>Livelihood</td>
<td>2</td>
<td>10</td>
</tr>
</tbody>
</table>

“Access to reconstructive care was a significant issue for these patients, including insurance coverage, availability of services and knowledge gaps among the referring medical community.”

Limitations

Outcomes were self-reported and therefore subject to confounding with comorbidities, which can alter the patient’s perception of his surgical result. Furthermore, we were unable to perform 2 separate interviews (preoperative and postoperative) for any single patient. As a result, our quantitative data are unable to provide longitudinal insight into an individual’s experience before and after surgery.

Interpretation for Patient Care

When a successful repair is performed, this can significantly improve the hygienic, urinary and sexual function of the patient, as well as lead to improvements in mental and social health. While this condition is often associated with significant weight gain, it is an irreversible process that requires complex surgical reconstruction and does not improve with weight loss.
Fertility Preservation in Pediatric Patients: Who, What and Why (or Why Not)?

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Introduction
Pediatric fertility preservation is an emerging field that is beginning to be applied to expanded groups of patients. This article discusses the current state of fertility preservation for pediatric patients, including eligible patient populations, available techniques and ethical considerations.

Who: Which Children Are Eligible for Fertility Preservation?
Pediatric patients who are facing fertility threatening treatments or diagnoses are all potential candidates for experimental or established fertility preservation options (Table 1).

Relevant populations include oncology patients who are receiving chemotherapy with a cyclophosphamide equivalent dose >8,000 mg/m², radiation to the pelvis or hypothalamus, and those undergoing stem cell transplant. Patients with nononcologic diagnoses including sickle cell anemia or thalassemia who are undergoing stem cell transplant, and patients with rheumatological disease who are being treated with cyclophosphamide are also candidates. Children with differences of sex development (DSD) who are undergoing prophylactic gonadectomy due to tumor risk are potentially eligible. Finally, fertility preservation brings up multiple ethical issues that may influence families’ decisions about whether to pursue fertility preservation for their child. The most relevant options for many children with fertility-threatening conditions either are experimental without successful human live births (TTC, GTC for DSD) or have limited data about expect birth rates from tissue frozen prepubertally (OTC). The uncertainty about whether the tissue will ever produce a biological child generates concern about false hope. Cost of fertility preservation procedures and storage is another consideration that may lead to inequity in which children pursue fertility preservation. Cost varies by circumstance and insurance coverage, but tissue processing and cryopreservation is ~$1,000/patient, with surgical costs typically bundled with other oncologic care performed under the same anesthetic. Storage is not usually covered by insurance, and commercial sperm and testicular tissue storage fees are $300 per year, with price reduction for long-term storage and sliding scale discounts based on income available.

Table 1. Eligible patient populations and reasons for infertility risk

<table>
<thead>
<tr>
<th>Eligible Population</th>
<th>Reason(s) for Infertility</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oncology</td>
<td>• Chemotherapy (cyclophosphamide equivalent dose &gt;8000 mg/m²)</td>
</tr>
<tr>
<td></td>
<td>• Pelvic or hypothalamic radiation</td>
</tr>
<tr>
<td></td>
<td>• Stem cell transplant</td>
</tr>
<tr>
<td></td>
<td>• Gonadectomy for ovarian or testicular cancer</td>
</tr>
<tr>
<td>Hematological (eg sickle cell, thalassemia)</td>
<td>• Stem cell transplant</td>
</tr>
<tr>
<td>Rheumatological</td>
<td>• Cyclophosphamide</td>
</tr>
<tr>
<td>DSD</td>
<td>• Gonadal dysgenesis</td>
</tr>
<tr>
<td></td>
<td>• Hormone dysfunction</td>
</tr>
<tr>
<td></td>
<td>• Anatomical barriers</td>
</tr>
<tr>
<td></td>
<td>• Gonadectomy for tumor risk</td>
</tr>
<tr>
<td>Transgender</td>
<td>• Gonadal suppression from gender-affirming hormones</td>
</tr>
</tbody>
</table>

Prepubertal TTC is still considered experimental. For this option, a wedge biopsy is taken from 1 testis and stored in liquid nitrogen. Experimental options for future tissue maturation and use include transplantation of spermatogonial stem cells, auto- or xenografting, and testicular organ culture. Nonhuman primate studies demonstrate feasibility of grafting, with return of spermatogenesis with 1 successful birth reported after ectopic grafting, sperm retrieval and intracytoplasmic sperm injection. Prepubertal testicular tissue and DSD gonadal tissue cryopreservation (GTC) are available as experimental therapies under research protocols. For peri- and postpubertal patients, mature egg and sperm preservation afford the highest likelihood of successful fertility preservation. Therefore, mature gamete retrieval should be prioritized over tissue preservation for patients who are at least Tanner stage 3 and able to complete the necessary procedures. For egg preservation, patients must undergo ovarian stimulation. For sperm, samples are either obtained via manual collection or microsurgical testicular sperm extraction and testicular sperm cryopreservation when semen emission is not feasible.

Why (or Why Not): What Are the Ethical Considerations?
The concept of pediatric fertility preservation bring up multiple ethical issues that may influence families’ decisions about whether to pursue fertility preservation for their child. The most relevant options for many children with fertility-threatening conditions either are experimental without successful human live births (TTC, GTC for DSD) or have limited data about expected birth rates from tissue frozen prepubertally (OTC). The uncertainty about whether the tissue will ever produce a biological child generates concern about false hope. Cost of fertility preservation procedures and storage is another consideration that may lead to inequity in which children pursue fertility preservation. Cost varies by circumstance and insurance coverage, but tissue processing and cryopreservation is ~$1,000/patient, with surgical costs typically bundled with other oncologic care performed under the same anesthetic. Storage is not usually covered by insurance, and commercial sperm and testicular tissue storage fees are $300 per year, with price reduction for long-term storage and sliding scale discounts based on income available.

For some patients, it is not logistically possible to combine procedures (or no additional procedures are needed to treat their disease), such that risk of an additional anesthetic/surgical procedure is a consideration. Tissue ownership is another key ethical issue—disposition

> Continued on page 23
Table 2. Pediatric fertility preservation takeaways

<table>
<thead>
<tr>
<th>Who? Eligible populations</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Oncology</td>
</tr>
<tr>
<td>• Nononcologic stem cell transplant</td>
</tr>
<tr>
<td>• Rheumatological disorders treated with cyclophosphamide</td>
</tr>
<tr>
<td>• DSD</td>
</tr>
<tr>
<td>• Transgender</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>What? Cryopreservation options</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Egg</td>
</tr>
<tr>
<td>• Sperm</td>
</tr>
<tr>
<td>• Ovarian tissue (recently nonexperimental)</td>
</tr>
<tr>
<td>• Testicular tissue (experimental)</td>
</tr>
<tr>
<td>• (Embryo)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Why (or why not)? Ethical considerations</th>
</tr>
</thead>
<tbody>
<tr>
<td>• False home (experimental options)</td>
</tr>
<tr>
<td>• Cost</td>
</tr>
<tr>
<td>• Risk of additional procedures tissue ownership</td>
</tr>
<tr>
<td>• Proxy decision making</td>
</tr>
<tr>
<td>• Genetic transmission of condition</td>
</tr>
<tr>
<td>• (For DSD, separate controversies about gonadectomy)</td>
</tr>
</tbody>
</table>

Pediatric Fertility Preservation: Takeaways

Fertility preservation is an option for many pediatric patients with fertility-threatening diagnoses and treatments. Key takeaway points are summarized in Table 2.


UPJ INSIGHT

Population Trends in Frailty in Older Adults with Benign Urological Conditions in Northern California

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Anne M. Suskind, MD, MS
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Study Need and Importance

Frailty is defined as a state of vulnerability in which individuals have a phenotype of decreased physiological reserve and function, and is known to be associated with increased rates of postoperative complications and mortality. It is known that disparities related to access to care and socioeconomic status often vary geographically. Therefore, we sought to understand regional variation of frailty using the Timed Up and Go Test (TUGT) across health service areas (HSAs) in Northern and Central California among older adults presenting to our academic tertiary care center with benign urological conditions.

What We Found

A total of 2,596 subjects were stratified into 69 HSAs in Northern and Central California. Twenty-two HSAs were categorized as robust (not frail) and 48 HSAs were categorized as prefrail/frail. Prefrail/frail HSAs were significantly associated with subjects that were of older age (adjusted odds...
Continued from page 23

ratio [aOR] 4.03, CI 3.29–4.94, p <0.001), female sex [aOR 1.10, CI 1.07–1.11, p <0.001), non-White race [aOR 1.12, CI 1.10–1.14, p <0.001], underweight body mass index (BMI; aOR 1.14, CI 1.07–1.22, p <0.001) and obese BMI (aOR 1.06, CI 1.04–1.08, p <0.001). There was a 1.7-fold difference in mean TUGT values across HSAs (see Figure).

Limitations

This study used a single measure of frailty, the TUGT, which is a validated surrogate marker of frailty with high sensitivity and specificity. Additionally, this study utilized data from a single academic center, potentially limiting the generalizability of our findings.

Interpretation for Patient Care

Among older adults with benign urological disease, frailty varies based on geographic location. Older age, non-White race, and underweight and obese BMIs were found to be associated with geographic areas with increased frailty. Further studies into health disparities as they pertain to geography and frailty are needed to expand upon these findings.

Endoscopic Treatment of Upper Tract Urothelial Tumors: Technical Tips to Improve Outcomes

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Introduction

Though upper tract urothelial carcinoma only accounts for approximately 10% of all urothelial cancers, its often aggressive characteristics mandate explicit diagnosis and treatment.1

The historical gold standard of treatment with nephroureterectomy often leads to increased morbidity and chronic kidney disease. However, improvements in endoscopic technologies can preclude extirpative treatment and maintain oncologic control in select situations. Specifically, for patients with low-risk disease, renal insufficiency, a functionally solitary kidney, bilateral disease, hereditary malignancy (ie Lynch syndrome) or those who are poor surgical risk, endoscopic management may be preferred. New improvements in endoscopic visibility, access and different ablation modalities may allow for more durable oncologic control in appropriately selected patients and minimize treatment morbidity.

Scope Selection

Fundamentally, endoscopic surgery depends on clear visualization of a body cavity or hollow viscus. Though fiberoptic scopes are more affordable and offer better flexibility, digital scopes provide for improved image resolution and the integration of enhanced imaging strategies (ie narrow band imaging) to improve diagnosis and treatment of upper tract tumors (Fig. 1).2 Although no oncologic benefit has been demonstrated from the use of digital over fiberoptic scopes, digital scopes have shown improvements in operative time for endoscopic surgery.3,4 We further believe they lead to a decreased cognitive workload, allowing for more efficient tumor treatment. There are some limitations to maneuverability of digital scopes and concerns for costs related to breakage; however, newer disposable scopes may mitigate these concerns while optimizing upper tract cancer treatment.

Upper Tract Access

Intraoperatively, starting each case with fluoroscopic imaging (ie a retrograde or antegrade pyelogram) allows for the detection, location and size of any filling defects consistent with the tumor (Fig. 2, a). Ureteral wires for access should be placed and advanced carefully to prevent disturbing urothelium and leading to bleeding that might impair visibility. In some cases, inspecting the distal ureter with a semirigid ureteroscope can help visually rule out distal ureteral tumors if treatment of proximal ureteral or renal lesions is required. For treatment of proximal/renal lesions, we favor the use of an access sheath to 1) improve ease of overall access, 2) lower intrarenal pressures, 3) improve visibility with irrigation and 4) allow for varied instrumentation for biopsy and treatment.5 Additionally, there are certain situations that warrant percutaneous access for adequate biopsy and resection of upper tract tumors. For patients with prior urinary diversions, or large tumors that are inadequately treated in retrograde fashion, percutaneous access can provide for a feasible means of tumor resection (Fig. 2, b–d). Depending on the size of the tumor, the tract can be dilated from 10Fr to 30Fr. Larger sheaths allow for placement of larger instruments or resectoscopes for better tumor resection.

Selection of Biopsy Tool and Laser Modality

A variety of different instruments have been developed for ureteroscopic biopsy and removal of tumors in the upper tract. Instrument choice should be adapted...
ENDOSCOPIC TREATMENT OF UPPER TRACT UROTHELIAL TUMORS

Continued from page 24

lution to prevent damage to healthy tissue. Hemostasis can be achieved by “defocusing” the laser at the target tissue. Likewise, distance mode can control bleeding, while contact mode may help resect a tumor or cut a stalk.

On the other hand, the continuous, shorter wave of the thulium fiber (ie diode-pumped laser) has decreased tissue penetration and risk of injury to normal tissue by providing more precise vaporization. However, thulium fibers are prone to necrotic tissue adherence to fiber tip, which can obstruct vision and require cleaning during the case.7 With the thulium fiber, we recommend settings between 0.3 and 1 J and 10 and 40 Hz for a maximum of 20 W in the kidney, and 0.3 to 0.6 J, and 5 to 15 Hz for a maximum of 4 W in the ureter. It is possible that holmium laser pulsed modulation may achieve similar results. Of note, there also exist ureteroscopic Bugbee electrodes; however, their size, impedance to irrigation and maneuverability limit their use.

Figure 2. a, retrograde pyelogram showing filling defect of left kidney renal pelvis. b, percutaneous access into lower pole calyx. c, toothed grasper for percutaneous removal of tumor. d, tumor removed from renal pelvis.

Based on location, size and shape of the tumor. Flat tumors, for example, are best sampled with something similar to a forceps grasper (eg Piranha™, Boston Scientific). Sometimes the angle of instrumentation can be challenging for sampling flat tumors (such as in the ureter) and a brush biopsy can also be performed for diagnosis. Papillary tumors, on the other hand, can be easily removed with a nitinol basket (eg Zero Tip™, Boston Scientific). Larger biopsy instruments, such as the 6Fr BI-Gopsy™ forceps, have shown effectiveness in getting bigger biopsy specimens, but they require an access sheath for usage and their size limits both visibility and scope flexibility.6 Additionally, further diagnostic sensitivity can be enhanced by selective cytology and/or urinary biomarkers as well.

While holmium laser ablation of upper tract tumors has shown good oncologic outcomes, its long wavelength increases the risk for bleeding during ablation and visibility concerns.7 Thus, we start with a lower setting of energy (0.3 J) and increase if necessary. We recommend at most 1 J and 10 Hz for ablation to prevent damage to healthy tissue. Hemostasis can be achieved by “defocusing” the laser at the target tissue. Likewise, distance mode can control bleeding, while contact mode may help resect a tumor or cut a stalk.

On the other hand, the continuous, shorter wave of the thulium fiber (ie diode-pumped laser) has decreased tissue penetration and risk of injury to normal tissue by providing more precise vaporization. However, thulium fibers are prone to necrotic tissue adherence to fiber tip, which can obstruct vision and require cleaning during the case.7 With the thulium fiber, we recommend settings between 0.3 and 1 J and 10 and 40 Hz for a maximum of 20 W in the kidney, and 0.3 to 0.6 J, and 5 to 15 Hz for a maximum of 4 W in the ureter. It is possible that holmium laser pulsed modulation may achieve similar results. Of note, there also exist ureteroscopic Bugbee electrodes; however, their size, impedance to irrigation and maneuverability limit their use.

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All High-Grade Ta Tumors Should be Classified as High Risk: Bacillus Calmette-Guérin Response in High-Grade Ta Tumors

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Study Need and Importance

Optimal management of patients with bladder cancer necessitates accurate risk stratification. Unfortunately, risk stratification paradigms vary amongst different nonmuscle-invasive bladder cancer guidelines. Currently, the American Urological Association/Society of Urologic Oncology guidelines recommend that small high-grade (HG) Ta tumors be considered intermediate-risk (IR) rather than high-risk (HR). Similarly, while previous iterations of the European Association of Urology (EAU) guidelines have included all HG tumors as HR, the 2021 guidelines provide new prognostic risk groups in which some HG Ta tumors are considered IR. The 2021 prognostic risk groups are based upon individual patient data from nonmuscle-invasive bladder cancer cases treated with or without intravesical chemotherapy, but not Bacillus Calmette-Guérin (BCG) immunotherapy. Thus, we sought to investigate the response to BCG in all Ta tumors and compared responses based upon EAU classification as IR or HR.

What We Found

When we studied patients who received adequate BCG (defined as at least 5 of 6 induction instillations plus at least 2 additional instillations, as a component of either maintenance or re-induction therapy) from 2000–2018 at our institution and stratified them based upon 2021 EAU prognostic risk groups, we found that 37 (16%) had IR low-grade (LG) Ta, 92 (40%) had IR HG Ta and 101 (44%) had HR HG Ta tumors. Oncologic behavior of IR HG Ta tumors was more in alignment with HR HG Ta tumors than IR LG Ta tumors regarding BCG unresponsiveness (HR HG Ta 13%, IR HG Ta 14%, IR LG Ta tumors 0.0%, p=0.003) and progression to muscle-invasive disease or metastasis (HR HG Ta 5.9%, IR HG Ta 6.5%, IR LG Ta 0.0%, p=0.3, see Table). Rates of recurrence, BCG unresponsiveness and progression were similar, irrespective of the number of EAU risk factors present (ie age >70 years, tumor size ≥3cm, multifocality).

Limitations

This study was a retrospective review from a single institution.

Interpretation for Patient Care

Among patients treated with adequate BCG, rates of BCG unresponsiveness and progression were similar in all patients with HG Ta tumors, irrespective of the number of EAU clinical risk factors, and were uniformly higher than IR LG Ta tumors. These data suggest that all HG Ta tumors are at risk for progression and should be treated as HR.
Important Updates on Pulse Wave Therapy for Erectile Dysfunction

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Since their popularization over the past 2 decades, low-intensity shock wave (LiSWT) and pulse wave therapies have arguably become among the most heavily advertised treatments for erectile dysfunction (ED) in the U.S. However, despite the increasing number of multimedia campaigns and claims of efficacy, there often remains significant confusion regarding the therapies themselves and true data available.

Pulse Wave and Shock Wave Therapies Are Different

One of the most important distinctions to highlight regarding this technology is the difference between LiSWT and pulse wave therapies. Although the 2 terms are often used (confused) interchangeably, in reality, the therapies are very different in several critical aspects. The most important of these differences relates to the types and intensity of energy delivered. While LiSWT provides a high-energy, focused shock wave which results in local tissue trauma, pulse wave devices generate radial waves, which deliver significantly lower amounts of energy overall. These differences in energy are one reason why pulse wave therapies have lower U.S. Food and Drug Administration classifications compared to LiSWT devices and why nonmedical professionals are able to perform pulse wave therapies without licensure or certification, including direct-to-consumer sales of pulse wave devices (which are commonly misrepresented as LiSWT devices).

The nomenclature used to describe the therapies is also commonly confused. For sake of simplicity, in reference to ED therapies, the terms “pulse,” “pressure” and “radial” can be considered synonymous and most often refer to instruments which generate the lower amplitude (power) radial waves. In contrast, the term “shock wave” only applies to devices which generate a true, focal shock wave, whereas terms such as “acoustic wave” could be used to define either pulse wave or LiSWT, since they both deliver acoustic energy. It is therefore incorrect and misleading to refer to any therapy which only delivers low-amplitude pulse/radial/pressure waves as LiSWT, although this is commonly done with many online and direct-to-consumer advertisements.

Data Cannot Be Extrapolated between Therapies

Importantly, since LiSWT and pulse wave therapies represent distinct treatments, the data regarding their efficacy cannot be extrapolated to one another. More pointedly stated, it is misleading for any individual or group to suggest that results from LiSWT can be used to suggest similar benefits with pulse wave treatments, and vice versa. Indeed, given the differences in energy delivered, it would be relatively akin (although exaggerated) to comparing outcomes of shock wave therapy for nephrolithiasis to someone receiving a renal ultrasound.

In reviewing published results, a relatively large amount of data has been generated regarding the safety and efficacy of LiSWT, including several randomized controlled trials (RCTs). In a recent, large meta-analysis of 16 RCTs evaluating LiSWT for ED, Yao and colleagues identified an average improvement of 3 points in the International Index of Erectile Function-Erectile Function Domain score compared to sham-treated men. Although these results are statistically significant, they fail to meet the 4-point threshold required to be considered clinically meaningful as an ED therapy. These data are similar to other meta-analyses which have reported improvements ranging from 2 to 5 points and which underscore the controversial nature of LiSWT as an “effective” ED therapy.

However, in contrast to the abundant number of RCTs available in men receiving LiSWT, until recently, no RCTs had been performed evaluating the efficacy of pulse wave treatments in men with ED. This fact is remarkable given the volume of advertising and statements which have been made over 2 decades suggesting an abundance of scientific proof on the topic.

New Published Data on Pulse Wave Therapy and Societal Statements

In May 2022, The Journal of Sexual Medicine published the first ever randomized, double-blinded, sham-controlled clinical trial evaluating pulse/radial wave therapy for ED. Results from the study of 80 men demonstrated that pulse/radial wave therapy had no impact on improving erectile function, with controls showing a nonstatistically greater improvement compared to pulse wave treated men. These data are important, as they demonstrate that pulse wave therapy provides no benefits for the treatment of ED. They also strongly undermine any advertising claims for efficacy of pulse wave devices or therapies. From a medical societal standpoint, although several statements reference LiSWT in the management of ED and/or Peyronie’s disease, none has specifically highlighted pulse wave therapy. More broadly, SMSNA (Sexual Medicine Society of North America) has released a position statement on restorative therapies and concluded that “the use of shock waves or stem cells/ [stromal vascular fraction cells] is investigational…and should only be conducted under research protocols in compliance with institutional review board approval at little or no cost to the patient. Specifically, SMSNA does not feel that it is appropriate or ethical for providers to advertise or otherwise make implicit or explicit claims of efficacy for these therapies pending further data. Similarly, patients considering such therapies should be fully informed as to the lack of data demonstrating clinically relevant efficacy and consented regarding the potential benefits and risks.”

Take-Home Message

Pulse wave (radial/pressure wave) therapies represent a distinct treatment from LiSWT and have limited published data available. Recently, the first RCT evaluating the efficacy of pulse wave therapy failed to demonstrate any benefits with treatment compared to sham controls. These findings, in combination with a lack of supporting data, would suggest that pulse wave therapy currently has no role in the treatment of ED. The use of pulse wave therapy for this condition would also be considered against best practices and is not in keeping with evidence-based medicine. Advertising or claims which suggest benefits for pulse wave therapies/devices or which indirectly suggest benefits through extrapolation of LiSWT data are not consistent with contemporary clinical data and are therefore misleading.

Influence of Clinical and Sociodemographic Factors on the Management, Costs, and Outcomes of Acute Urinary Retention in the Acute Care Setting

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Study Need and Importance

Benign prostatic hyperplasia (BPH) is a common, progressive condition that affects the majority of men over age 50 years. Acute urinary retention (AUR) is a severe sequela of undertreated BPH that impairs quality of life and imposes significant health care costs. Since BPH is often highly treatable, we sought to examine factors associated with the development of AUR in individuals with BPH and their impact on repeated episodes of AUR, subsequent bladder outlet procedures and health care costs.

What We Found

Among over 30,000 patients presenting with AUR and BPH over a calendar year, 17.5% of patients had multiple AUR encounters, yet only 6.4% underwent a bladder outlet procedure that year. Older age, Black race, Medicare insurance and lower education level were associated with repeated AUR episodes. Older age and lower education level were also associated with lower odds of receiving bladder outlet procedures. Health care costs were lower for single encounters vs revisits for AUR, and costs attributed to undergoing a bladder outlet procedure were lower than the costs of forgoing one (see Figure).

Limitations

Causal inferences are limited due to our study’s retrospective design. In addition, we could not track loss to followup or totally eliminate the influence of confounding diagnoses because of limitations in the data set. The relatively short followup and lack of prior medical history regarding BPH treatment also challenge how the data can be interpreted over longer periods of time. Lastly, our cost calculations utilized cost-to-charge ratios that may not accurately represent true costs.

Interpretation for Patient Care

Sociodemographic factors influence the odds of developing recurrent AUR and the decision to subsequently undergo a bladder outlet procedure for patients with BPH. Considering the increased health care costs associated with repeated AUR episodes and delaying bladder outlet procedures after AUR, this study may serve as a framework for identifying high-risk patients and implementing surgical interventions sooner.
Sexuality is both an individual and social phenomenon, enacted through relationships that are structured and limited by cultural, political and economic forces. Social determinants of health, defined by the CDC (Centers for Disease Control and Prevention) as “conditions in the places where people live, learn, work and play,” are therefore necessarily relevant to sexual health.1 But any attempt to apply this theory to health care practice is brought up short by questions about which aspects of sexual health are thus influenced, which populations of patients are affected, and which social forces and conditions are most relevant.

A narrative review recently published by Higgins et al critiques the abundance of research examining the effects of various factors on sexual health (including gender, sexual orientation, race, religion and education) for its neglect of “poverty and socioeconomic conditions [which] are largely omitted from this scholarship, despite socioeconomic status being among the largest influences on people’s lived experiences.”2 This is an important call to action for sexual health research, but still leaves unanswered how best to study the relevant aspects of socioeconomic status (SES) and their relationship to various clinical conditions.

We offer one response in Kim et al, a cross-sectional study that investigated the relationship between female sexual dysfunction (FSD) and SES using data from the National Health and Nutrition Examination Survey (NHANES), a survey of the U.S. population published by the National Center for Health Statistics of the CDC, from 2007 to 2016.3 NHANES included data about income, which were used to calculate participants’ poverty income ratio (PIR) and quantify SES.

It also included a sexual behavior questionnaire, conducted in private using a self-interview system to encourage honest responses.

Despite the fact that FSD is well defined with characteristic disease symptoms (including those of sexual desire, arousal, orgasm and dyspareunia),4 the sexual behavior questionnaire did not specifically inquire about these; this was in contrast to male sexual dysfunction and erectile dysfunction, about which male NHANES participants were explicitly interrogated. Therefore, we used sexual frequency as a surrogate for female sexual function, and diagnosed FSD in those women whose replies to the question, “In the past 12 months, how many times have you had vaginal or anal sex?” fell within the first quartile of responses, with ≤11 sexual incidents in the past 12 months.

While sexual frequency is certainly an imperfect measure of FSD, it is collected as a key variable in 5 of 7 well-validated scales assessing FSD from direct patient input, and low sexual frequency has been found to be strongly associated with FSD among Western and European nations.5,6 Therefore, in the absence of any direct questions about symptoms of FSD, sexual frequency was determined to be the best proxy for measuring FSD in the data available. Analysis was conducted using SPSS® v27 using complex survey design analysis in order to extrapolate the NHANES study population into the national U.S. population.

In total, the analysis included 7,348 NHANES participants from 2007 to 2016, representing 43 million U.S. women aged 20–59 years. Within our population, 26.3% of participants reported sexual frequency of ≤11 times/year (see Figure). We found that patients of lower SES (PIR<2) were twice (OR=1.98; 95% CI=1.25-3.13) as likely to report lower sexual frequency (≤11 times/year) compared to those of higher SES (PIR≥2), after adjusting for relevant social history, gynecologic history and significant medical conditions (p=0.003; see Table). This demonstrates that lower SES is likely to be associated with FSD among women in the U.S.7

Our study has several clear limitations. In addition to the aforementioned uncertainty regarding the correlation of FSD diagnosis with low sexual frequency, given its cross-sectional and observational design, causality between SES and FSD as measured by low sexual frequency cannot be inferred. Since it relied on a retrospective survey questionnaire for data, this study is subject to recall bias. In addition, we did not adjust for every individual risk factor for FSD, such as history of abortions or sexual abuse, nor could we adjust for relational risk factors to exclude females whose partners have sexual dysfunction.

Notwithstanding these limitations—indeed, even because of them—the study has several noteworthy strengths. Its methodology calls attention to a significant gender inequity: that despite the prevalence of FSD symptoms (present in over 40% of women) exceeding that of male erectile dysfunction,8 our national health statistics neglect the former while explicitly concerning themselves with the latter. This systemic, macro-level neglect is mirrored in micro-level clinical encounters, as health care providers often avoid asking female patients about sexual activity and FSD symptoms, even in gynecologic care settings, where they are clearly relevant.9 The inclusion of FSD in the AUA Core Curriculum is an important corrective to this bias within urology.

Paradoxically, the relative neglect of female sexual symptoms in clinical practice and national health statistics is inverted within...
the extant research literature about SES and other social determinants of sexual health, the majority of which is devoted to White women.2 By using NHANES, which purposely oversamples from demographics that have been historically overlooked by population surveys including racial and ethnic minorities and elderly adults, we redress some of this bias. However, by focusing exclusively on FSD, our study does recapitulate the historical and habitual tendency of sexual medicine to consider female sexual problems as psychosocial and male sexual dysfunction as biological, when both sexes would be more accurately represented and served by a balanced biopsychosocial approach.3

Our study suggests that regular screening for FSD is most warranted by patients of lower SES, particularly women who are 50 years or older, are non-Hispanic Black, and have comorbid diabetes or depressive symptoms, since the association of SES and FSD is stronger in these subgroups. These findings also highlight the importance of having affordable options for the diagnosis and treatment of FSD, as the cost of specialist female sexual health care and treatment can be a significant barrier to access. Asking about symptoms—in our epidemiological surveys, clinical encounters and research—is the principal step and can be a potent force for positive change.4,5


### The Effect of Low-Intensity Shock Wave Therapy on Moderate Erectile Dysfunction: A Double-Blind, Randomized, Sham-Controlled Clinical Trial

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**Study Need and Importance**

The role of low-intensity shock wave therapy in patients with moderate erectile dysfunction remains uncaptured. In this context, we performed the first double-blind, randomized, sham-controlled trial to evaluate the efficacy and safety of low-intensity shock wave therapy exclusively in patients with moderate vasculogenic erectile dysfunction.

**What We Found**

Twelve sessions of low-intensity shock wave therapy twice weekly for 6 weeks with a treatment protocol of 5,000 impulses, 0.096 mJ/mm² energy flux density and 5 Hz frequency using the ARIES ²⁷™ device are highly effective in patients with moderate vasculogenic erectile dysfunction and previous good or partial response to phosphodies- terase type 5 inhibitors. Compared to sham therapy, the proportion of participants attaining a minimal clinically important difference in the International Index of Erectile Function–Erectile Function domain, as well as the mean change from baseline in the International Index of Erectile Function–Erectile Function domain and the “yes” responses to question 3 of Sexual Encounter Profile diaries significantly improved at 1 and 3 months after low-intensity shock wave therapy (see Table).

**Table.** Comparison of changes from baseline in the International Index of Erectile Function–Erectile Function domain and question 3 of the Sexual Encounter Profile diaries after low-intensity therapy versus sham therapy adjusted for baseline values

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Means±SD Low-Intensity Shock Wave Therapy</th>
<th>Means±SD Sham Therapy</th>
<th>Mean Difference (95% CI)</th>
<th>Between-Group p Value</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>International Index of Erectile Function–Erectile Function domain:</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Baseline—1 mo</td>
<td>4.9±3</td>
<td>0.9±2</td>
<td>3.9 (2.7 to 5.2)</td>
<td>&lt;.001</td>
</tr>
<tr>
<td>Baseline—3 mos</td>
<td>5.7±2.3</td>
<td>1.2±1.6</td>
<td>4.4 (3.4 to 5.4)</td>
<td>&lt;.001</td>
</tr>
<tr>
<td><strong>Sexual Encounter Profile question 3 (yes %):</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Baseline—1 mo</td>
<td>21±22</td>
<td>−2.1±15</td>
<td>19 (11 to 27)</td>
<td>&lt;.001</td>
</tr>
<tr>
<td>Baseline—3 mos</td>
<td>28±25</td>
<td>1.5±16</td>
<td>23 (14 to 32)</td>
<td>&lt;.001</td>
</tr>
</tbody>
</table>

The analysis of covariance (ANCOVA) was applied. Bold type indicates statistically significant p values.
THE EFFECT OF LOW-INTENSITY SHOCK WAVE THERAPY ON MODERATE ERECTILE DYSFUNCTION

Continued from page 30

Limitations

Due to the single-center design of our study and the eligibility criteria restricted to patients with moderate erectile dysfunction, we included a rather small number of patients. Additionally, the relatively short follow-up duration of our study did not permit us to assess the long-term efficacy of low-intensity shock wave therapy, as well as the duration of the positive effect of low-intensity shock wave therapy in patients with moderate vasculogenic erectile dysfunction. Importantly, since we applied a specific low-intensity shock wave therapy protocol, our results may not be extrapolated to other low-intensity shock wave therapy generator systems or protocols.

Interpretation for Patient Care

Our findings suggest that low-intensity shock wave therapy is highly effective and safe in patients with moderate vasculogenic erectile dysfunction.


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Over the last 2 decades, the United States has lost hundreds of thousands of lives to the opioid epidemic. As the vast majority of the world’s opioids are consumed in the U.S., and deaths continue to rise, new strategies are necessary to limit this crisis. Importantly, providers can address this issue at the ground level. Although several factors, including a lack of awareness and deceptive pharmaceutical marketing, drove this epidemic, prescribers are certainly responsible for inadequately educating and monitoring patients, along with freely prescribing opioids to ensure patient comfort.

Particularly, urology poses an excellent space for progress. Namely, kidney stone patients hold great risk of opioid addiction. This risk is twofold: renal colic is widely prevalent and chronic, but also presents as the odds of receiving an opioid prescription fell (OR 0.12, p ≤0.0001). This downward trend is promising, but more work is required.

Yet these drugs cannot be completely eliminated in the current environment of drug options. Although over 25% of patients eventually misuse properly prescribed opioids, some patients may fairly require opioids for severe pain. Replacing opioid prescriptions with alternative pain control options whenever possible can mitigate this issue.

Importantly, even when indicated, opioids are notoriously prescribed in greater amounts than necessary. Dispensing extra drugs allows future misuse or community diversion. Ongoing research informing best practices and evidence-based guidelines for opioid use can optimize patient experiences while reducing the potential for addiction and harm.

Accordingly, various research groups demonstrated the feasibility of opioid alternatives at the 117th Annual Meeting of the AUA. Two research groups focused on the relevance of opioid stewardship in renal colic.

Katragadda et al demonstrated that kidney stones are the most common reason for an emergency department (ED) opioid prescription.1 This shows the surprisingly large role that urology plays in America’s excess opioid use. Thankfully, opioid prescriptions for kidney stones decreased from 33% to 16% from 2012 to 2017, as the odds of receiving an opioid prescription fell (OR 0.12, p ≤0.0001). This downward trend is promising, but more work is required.

Meanwhile, DeMasi et al presented the results of a randomized clinical trial investigating the effectiveness of opioid-free regimens for noninvasive urology procedures, particularly elective ureteroscopy or percutaneous nephrolithotomy.2 Overall pain outcomes were noninferior with ketorolac versus oxycodone-acetaminophen. In fact, average pain and worst pain scores were significantly lower with the opioid alternative. Patient-reported pain intensity levels (where 10 is the worst pain) were 5.61 versus 7.52, respectively. By demonstrating preservation of patient comfort and quality of life, this work makes a strong argument for replacing opioids, ultimately reducing addiction risk and community spillover. Notably, this study found that both regimens resulted in high amounts of unused pills, demonstrating an opening for future work.

Although the opioid epidemic has been well-recognized for years, progress has been lacking. The AUA’s 2019 position statement noted that given a quadrupling of opioid use since 1999, stewardship in opioid prescription was necessary. Urologists were encouraged to use the lowest dosage of these drugs when indicated. Additionally, the AUA recommended implementation of prescription drug monitoring programs to monitor use and decrease fraud. Finally, surplus medication reduction was underscored, as the majority of patients who receive opioids are given more than needed for their pain control period.

Although this position statement recognized the vast need for change and provided urologists a paradigm in which to improve care, progress has still been lacking, likely because clear guidelines on indications and dosages are missing. This limits urologists’ ability to consistently affirm appropriate settings for opioid use.

For instance, in 2018 the Mayo Clinic implemented a maximum opioid prescription for tiers of urological procedures. This protocol reduced oral morphine equivalents from 130 to 0. These promising results highlight the utility of clear protocols. Similar work nationally, informed by recent research, can allow urology to take a leading role in addressing the epidemic.

Firm guidelines must be produced by an expert committee to agree upon dosing, indications and evidence-based alternatives. Chart alerts when ordering opioids, along with reminders to follow up with patients who have been discharged with these drugs, can also play a role. Finally, increased awareness amongst providers and patients alike can heighten the impact of the robust research that is being performed to define opioid-safe urological care.

Frontline providers, including ED physicians and advanced practice providers, often serve as the first point of contact for many patients presenting with sequelae from lack of stone passage or painful postoperative urological...
conditions. Pharmacovigilance regarding opioid prescribing is essential and should be shared amongst all decision-making providers. Evolving practices to mitigate opioid addictions should be part of training not only prior to beginning clinical practice, but also as continuing medical education. Urologists should communicate their findings with other members of the care team to affect change.

Alternative approaches to treating pain associated with renal colic should begin with consideration for prescribing an NSAID (non-steroidal anti-inflammatory drug) unless clear contraindications exist. Patients in the ED can also be treated with intravenous lidocaine, ketamine, intravenous Tylenol® or Toradol®. Unless contraindications exist, a 3-day supply of an opioid for breakthrough pain is certainly a consideration, but assuming normal renal function, the choice is clear to utilize alternatives to opiates such as NSAIDs, like meloxicam, pregabalin, or gabapentin. Future study of ED revisit or admission rates is warranted to clarify these guidelines.

As mentioned, future avenues in which urologists can help fight the opioid crisis involve postoperative pain. A third relevant AUA study involved the Pennsylvania Urologic Regional Collaborative (PURC), a multicenter group which is testing ways to improve health care quality in urology. Chandrasekar et al demonstrated preserved pain control and patient comfort without opioids following robotic prostatectomy. Pain scores did not change following protocol implementation, which resulted in 14,582 fewer opioid tablets over 1 year. Median oxycodone tablet prescriptions for inpatients fell from 2.7 to 2.2, while prescribing at discharge reduced from 20 to 0 tablets. Overall, patient outcomes remained consistent while community opioid availability drastically fell. This work demonstrates the potential for diverse institutions to implement rigorous standards which reduce patient risk while maintaining comfort and outcomes.

Ultimately, research such as these AUA studies needs to be elevated to raise awareness amongst providers—not only urologists, but also community care and ED-based prescribers. Evidence-based guidelines demonstrating patient comfort and positive outcomes with opioid alternatives are the strongest way to encourage opioid stewardship.


Results from 22 Years of Followup in the Göteborg Randomized Population-Based Prostate Cancer Screening Trial

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Study Need and Importance

Results from randomized prostate cancer screening trials are inconsistent. The aim of the present study was to present very long followup data of the Göteborg 1 screening trial which started early before opportunistic prostate specific antigen (PSA) testing was peaking and with up to 20-year duration of the screening period.

What We Found

At 22 years of followup, the prostate cancer mortality was 29% lower in the group of men who were invited every second year for PSA testing (41% in those who attended at least once) compared to a noninvited control group, but the prostate cancer incidence was 42% higher. The number of men needed to invite was 221 and the number needed to diagnose was 9 to prevent 1 prostate cancer death. Among invited men a higher prostate cancer mortality was seen among those never attending the program and among those who started the program after age 60, and the prostate cancer mortality was high 10 years after termination of the program.

Limitations

Limitations mainly include the increasing rate of opportunistic PSA testing during the study period in the control group and nonparticipation in the screening group, diluting the “true” effects of a well-organized PSA screening program.

Interpretation for Patient Care

Regular PSA testing from age 50 significantly decreases the risk of dying from prostate cancer at the expense of a rather high risk of detecting small slow-growing cancers, of which many never will need treatment. If a man chooses to participate in a prostate cancer screening program he should start around age 50. Testing should be done at least every second year and should not stop at age 70 for all men.
Robotic Excision of a Perinephric Myxoid Pseudotumor of Fat

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Case Description

The patient is a 61-year-old male who had a CT scan performed for flank pain that revealed a 2.5 cm heterogenous lesion in the right medial perinephric space inferior to the right renal hilum. Past medical history was significant for atrial fibrillation and hypercholesterolemia, and serum creatinine was 1.2. Repeat CT scan with contrast 6 months later demonstrated a 3.1-× 2.6-cm axial mass just inferior to the right renal artery with soft tissue intermixed with fat and equivocal enhancement (Fig. 1). Two additional smaller lesions (<1.5 cm) with similar features were noted at the renal hilum and lower pole of the kidney. The patient was counseled on the differential diagnosis of tumors of the retroperitoneum to include liposarcoma, extra-renal angiomyolipoma, hematomatous malignancy, secondary metastases or other rare primary soft tissue lesions. He was advised to undergo interventional radiology (IR) guided percutaneous biopsy.

Percutaneous 18-gauge core biopsy was performed showing mature adipose tissue infiltrated by delicate collagenous stroma and scattered inflammatory cells. Stromal cells with multilobulated nuclei were observed (Fig. 2). Stains for Melan-A and smooth muscle actin were negative, not supportive of an angiomyolipoma diagnosis, and fluorescence in situ hybridization analysis was negative for MDM2 and CDK4 gene amplification, not supportive of a well differentiated liposarcoma.

Due to the remaining possibility of malignancy, the patient was advised to undergo surgical excision of the dominant lesion. He underwent a robotic-assisted laparoscopic excisional removal of the 3 cm mass which was abutting the renal hilum. Intraoperatively, the renal hilum, inferior vena cava, and ureter were dissected and all of the intervening tissue in this anatomic triangle was removed en-bloc (Fig. 3). The mass was moderately adherent to the right renal artery but was carefully dissected away with preservation of the vessels and right kidney. The postoperative course was unremarkable.

Pathological review of the mass showed a 3.9- × 3- × 2.5-cm gray-tan soft tissue nodule (Fig. 4). The lesion was hypocellular with alternating regions of myxoid and collagenous stroma, bland myofibroblasts and benign adipose tissue. Lymphoid follicles, plasma cells and mast cells were seen within the lesion. There was no cytologic atypia or hyperchromasia and no lipoblasts were observed (Fig. 5). Immunohistochemical stains for Melan-A and smooth muscle actin were negative to rule out angiomyolipoma. Final pathological diagnosis was defined as a perinephric myxoid tumor pseudotumor of fat.

Discussion

This case highlights the first minimally invasive resection of a perinephric myxoid pseudotumor of fat and highlights several important clinical points.

First, soft tissue tumors of the retroperitoneum present a diagnostic dilemma. There is a broad differential diagnosis including liposarcoma, leiomyosarcoma, neurofibroma and hematologic entities. These tumors should be managed in multidisciplinary fashion depending on size, location and invasion of surrounding retroperitoneal structures.
The Genitourinary Impacts of Gun Violence

| Table. GV patient comparisons between non-GU injury and GU injury groups |
|-----------------------------|-----------------|-----------------|-----------------|
|                            | Non-GU Injuries  | GU Injuries     | p Value         |
| Mean±SD age (yrs)           | 26.6±10.1        | 24.5±7.3        | 0.45            |
| No. male (%)                | 189/199 (95)     | 14/14 (100)     | >0.999          |
| No. African American (%)    | 168/199 (84.4)   | 14/14 (100)     | 0.23            |
| Median Injury Severity Score (IQR) | 6 (1–13) | 14 (9–35) | 0.001 |
| No. previous gun injury (%) | 12/113 (6)       | 3/11 (21.4)     | 0.06            |
| Median days LOS (IQR)       | 1 (1–2)          | 7 (2.5–13.5)    | <0.001          |
| Median hospital charges (IQR) | $8,789 ($3,079–$24,847) | $58,462 ($48,091–$125,896) | <0.001 |
| No. paid by Medicaid (%)    | 143/199 (71.9)   | 11/14 (78.6)    | 0.39            |

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Robotic Excision of a Perinephric Myxoid Pseudotumor of Fat

Continued from page 33

Structures. Primary management includes cross-sectional imaging, IR-guided biopsy and excisional removal. In this case, the patient demonstrated interval growth and enhancement at 6-month reimaging, and IR biopsy excluded metastasis or a hematologic malignancy that would be managed with systemic therapy, thus excision was advised.

Second, there are several considerations for patients planned for surgical excision. There are demonstrated benefits of the robotic approach to removal of these lesions, including smaller incisions, earlier convalescence and finer regional dissection. Both size and location impact patient positioning and port placement. In this case, we utilized a standard position and port placement for robotic partial nephrectomy as the mass was in close proximity to the renal hilum. Another decision relates to the extent of en-bloc resection of nearby organs. The traditional approach to known retroperitoneal sarcoma advises the removal of solid organs abutting these lesions. When pathology is unclear, we believe that feasible attempts should be made to spare adjacent organs. In this case, we dissected the tumor away from the inferior vena cava, renal hilum and ureter with minimal difficulty, allowing for maximal renal preservation.

Third, perinephric myxoid pseudotumor of fat is a relatively new pathological entity defined by the presence of mature adipose tissue, myxoid stroma, collagenous septa and inflammatory cells with or without arborizing vessels. Initial theories suggest that nonneoplastic renal diseases such as end-stage renal disease, diabetes or pyelonephritis can induce changes within the perinephric fat, leading to abnormal cellular growth.1–3 When presented with a fat-containing lesion in the retroperitoneum, the main differential diagnosis is a well-differentiated or de-differentiated liposarcoma. Histological features of liposarcoma include adipocytes with nuclear enlargement and hyperchromasia, fibrous septa with atypical fibroblasts, multivacuolated lipoblasts and/or a frank sarcomatous component. None of the features of liposarcoma should be present in a perinephric myxoid pseudotumor of fat,4 and negative fluorescence in situ hybridization analysis for MDM2 and CDK4 can provide further clinical evidence to rule out this malignancy.

Several other fat-containing lesions may be considered based on the histological features of perinephric myxoid pseudotumor of fat. Although the presence of fat, myxoid stroma and arborizing vessels may be reminiscent of myxoid liposarcoma, this sarcoma most often occurs on the extremities, contains lipoblasts and ovoid tumor cells, and has a characteristic translocation involving DDIT on chromosome 12. Angiomyolipoma can present as a perinephric fat-containing tumor, but this lesion contains spindle cells to epithelioid eosinophilic tumor cells and large vessels, and expresses melanocytic markers such as Melan-A or HMB-45 by immunohistochemistry. Finally, the presence of inflammatory cells may raise the possibility of an IgG4-related disease such as mesenteric fibrosis, but storiform fibrosis and obliterator phlebitis are not features of perinephric myxoid pseudotumor of fat.

At this time, there are 14 previously reported cases in the literature.5 There have been no reports of progression to malignancy, thus imaging surveillance after resection seems to be the most appropriate method of followup. Management of nonneoplastic renal diseases may aid in reducing recurrence risk; however, this stems from suspected pathogenesis of this disease.■

References


quantitative data. Significance was assessed at p < 0.05.

A total of 213 patients met the inclusion criteria, of whom 14 (6.6%) sustained injuries to the GU tract. Organ injuries occurred to the penis (1), scrotum (2), penis and scrotum (2), spermatic cord (1), testis (1), bladder (1), ureter (1), left renal hilum (1), right kidney (2), left kidney (2) and both kidneys (1). Of these, 12/14 (86%) also sustained concomitant non-GU organ injuries. Management of GU injuries included observation (6), repair of scrotal laceration (2), orchiectomy (3), laparoscopic repair of bladder (1), ureteral stent placement (2), open repair of ureter (1), open repair of renal laceration (1) and nephrectomy (1).

Urologists in our community treat a wide range of GV injuries that disproportionally affect young Black men (see Table). Victims who sustained GV injuries to the GU tract were more likely to have suffered 1 or more previous GV injuries, though this did not reach statistical significance.

Urologists, given the impact these injuries have on the patients and communities we serve, are in a unique position to support research efforts such as those of ACS COT, and become aware of existing community- and hospital-based GV prevention efforts.

Fair Game or Fair Warning? Ethical Considerations for Social Media Use in Resident Selection

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Case
A urology residency program director (PD) is evaluating a record number of applicants in a competitive pool, mirroring the national trend. In addition to the large volume of files to review, some aspects of the resident selection process have recently become more challenging. Standardized examinations and medical school courses are increasingly graded as “pass/fail,” complicating separation of candidates by performance. Interviews in the COVID-19 era are now conducted in a virtual format and certain subjective aspects of the applicants are more difficult to assess. The current residents in the program also lament the loss of in-person interview dinners, and with them the opportunity to engage with applicants more personally.

Intending to learn more about the applicants’ interests and profiles, the PD searches social media and identifies public Facebook and Twitter accounts that appear to belong to applicants. While scrolling through the accounts, the PD discovers several posts that catch their attention. One shows an intraoperative photo with identifiable patient information in the background. Another expresses opposition to mask mandates and references controversial views about vaccines. Others describe patients and hospital staff using memes that the PD finds offensive.

The PD wonders what to do next. They consider comprehensively searching for the accounts of all the candidates to ensure fairness but wonder how the accounts ought to be judged, and whether the content should be included in the review process at all. The PD also worries whether there is an ethical obligation to notify candidates about this kind of review.

Discussion
This case highlights an ethical quandary faced by many PDs. If one aim of residency application review is to assess candidates’ professionalism and preparedness comprehensively, should personal social media content be part of the review? Should programs inform applicants about searching their social media accounts? Which findings matter? Should applicants be permitted to respond to these findings, perhaps through a supplemental application or personal statement to provide context or explanation for discoverable content? Further, are programs ethically permitted to include social media data formally or informally in their assessment of applicants? If so, how far back should they look? These questions give context to the ethical considerations that are increasingly relevant as newer generations of residency applicants will have longer-standing social media accounts compared to years past.

The average number of applications received by urology residency programs has markedly increased over the last 3 cycles (243 in 2020, 282 in 2021 and 347 in 2022). This coincided with an increase in registered urology applicants (484 in 2020, 528 in 2021 and 601 in 2022). With the introduction of virtual interviews in the 2021 AUA Match, the dynamics of interactions between applicants, interviewers and residents has changed. Our program, for example, hosts a virtual meet and greet with the applicants and residents in small group format to mimic the traditional interview dinner. Other opportunities for noninterview interactions may include virtual open houses prior to interview season, and virtual tours of the respective hospital and clinic. In the virtual setting, interactions may seem more structured compared to years past. This climate may motivate PDs to turn to additional virtual forms of information gathering, such as searching social media accounts.

Both programs and applicants have reported increased social media use to learn more about each other. A recent study of urology PDs found that the majority believe that social media played a more important role in the 2021 AUA Match compared to previous cycles; 15% of PDs reported that applicants’ social media activity helped their chances of matching to their program, while 12% of PDs reported that it hurt applicants’ chances. However, only 5% of PDs reported social media as a formal part of the residency applicant assessment. Incomplete or absent data assessment may contribute to perceived importance; a separate survey of PDs after the implementation of virtual interviews reported that applicants’ social media activities were the least important factor during application review (mean rating 1.94 out of 5).

In an environment of increasing reliance on social media for potentially actionable information, professional social media guidelines may have an important and evolving role for both parties.”

“In an environment of increasing reliance on social media for potentially actionable information, professional social media guidelines may have an important and evolving role for both parties.”

Should programs inform applicants about searching their social media accounts? Which findings matter?”

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Why Attend the AUA Annual Meeting: Reflections from a First-Time Resident Attendee

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I have had the experience of attending national and some international urology meetings, but never one like the 2022 AUA Annual Meeting, considered one of the largest scientific meetings of urologists in the world. Just imagine, 68 plenary sessions, 88 instructional courses, more than 2000 abstracts and endless International Society and Specialty Society Symposiums; without forgetting the enormous Exhibit Hall. It is like a complete city full of science, technology and innovation! It is practically impossible to be able to attend everything that the meeting offers, and for a resident who attends an event of this magnitude for the first time, it is quite complicated to be able to organize yourself for the best meeting experience possible. Many will feel like me, wanting to attend everything, learn as much as possible, gain new insights and learn about new technology and the latest studies.

Some will do the same as I did, and will check the agenda in advance. You will notice the huge amount of sessions. The first thing I did was start selecting the sessions that I was interested in a few weeks before the meeting. It seemed like a simple task, only selecting sessions of my interest. Unfortunately, in the end, I realized that many sessions were simultaneous and distanced from each other. What do I do now?

There is no reason to stress out! The AUA Annual Meeting is not just about attending as many sessions as you can. In the case of residents, it is not only about learning and updating. There is much more to take home from the meeting.

Here are some tips to improve your experience for your first-time as a resident attendee at the AUA Annual meeting:

- **Organize your agenda.**
  
  Don’t stress out! You will sacrifice very interesting sessions, but you must prioritize what you want. We all have one or several specialities of interest, so focus on these topics. If you want to do a fellowship, try to attend the sessions of that particular speciality. Find out about new studies and take the opportunity to establish collaborations for future research projects. Fortunately, with the introduction of the virtual modality and online education in response to the negative impact of the COVID-19 pandemic, enormous efforts have been brought together to offer the on demand modality of the AUA Annual Meeting through a virtual platform. With this valuable tool, it will be possible to access and enjoy the sessions that you were not able to attend at the in person meeting.

- **Dedicate some of your time to visit the Exhibit Hall.**
  
  You will be able to learn and try some of the latest technology in the field, improve your skills in the different enhancement workshops and take the opportunity to create relationships with the industry and arrange further workshops of new technologies in your institution. In addition, the Residents Bowl takes place in the Exhibit Hall. Test your knowledge and refresh yourself on important topics that will surely be reviewed at the Board.

- **Start working on your fellowship.** It is a great opportunity to introduce yourself to the directors/coordinators of the fellowship programs of your interest. Get organized in advance to schedule interviews at the meeting. With this done, you will be one step closer to reaching your goal. If you still haven’t decided which fellowship specialty to choose, the AUA website provides you with valuable information and opportunities that will help you make this important decision. You will find the available...
fellowship programs, program coordinators/directors, and contact information.3

• **Build your network.** Introduce yourself to other residents and prestigious urologists. Michael T. Sheppard in his column published in March 2021, titled: “Build Your Network [Hint: The AUA Can Help],” shared a couple of useful tips on how to start building your network.1 The AUA Annual Meeting is a great place to start. You never know if something transcendent may result and it all starts with a simple introduction at the meeting. “A strong professional network can have a vast impact on career longevity, success and new business opportunities.”4 Your mentor plays an important role in this. They will help you reach the right people and start making connections.

• **Reinforce your mentor-mentee relationship.** As Dr. Ruchika Talwar mentioned in her AUA News column, “Mentorship is a vital component to professional success” and “Sometimes mentors are influential individuals who may be able to use their network to benefit you.”5 The AUA Annual Meeting is the perfect place to strengthen your relationship with your mentor in a relaxed environment outside the hospital and the workplace.

• **And finally, take time for yourself.** Get together with other residents and enjoy the tourist, cultural and gastronomic attractions that are offered by the host city.6

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**Engage with Quality Improvement and Patient Safety Update**

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The Quality Improvement and Patient Safety (QIPS) Committee has a critical function to develop internal and external policy on quality and safety on behalf of the AUA, its members and the larger urological community. Although this core mission is vital, there remains a growing interest, need and opportunity for direct engagement, support and growth of the science and practice of QIPS by urologists, affiliated health care professionals and trainees in our residency and fellowship programs.

The Engage with Quality Improvement and Patient Safety (E-QIPS) repository was officially launched in August 2021 and is an online collection of QIPS projects from members of the urological community. The aim of E-QIPS is to highlight QIPS accomplishments, foster growth, encourage collaboration and elevate urological care. E-QIPS submissions can take the form of either completed projects or works-in-progress. The goal of works-in-progress is to encourage others to participate in ongoing efforts to obtain future combined outcomes. Each E-QIPS guide is peer-reviewed and formatted to allow urological health professionals to understand the specific quality or safety problem, objectives, interventions, outcomes, impact and sustainability with the purpose of transfer and application to local individual or group practice change.

Members of the QIPS Committee use a validated scoring guide to evaluate E-QIPS submissions. Specifically, we evaluate the definition of the problem, objectives, evidence of QIPS framework, resources and the intervention. Once evaluated, scores are returned to the authors with one of the following classifications: reject with recommendations for improvement, accept with the need for revision based on reviewer comments and accept with the option for revision. If accepted, the E-QIPS guide will be posted on the AUA website. This can be listed as a peer-reviewed publication and does not prevent the authors from submitting to a journal if they desire to do so.

While still in the early stages since its inception, we are encouraged and excited about the initial interest and high-quality projects already submitted. To date, seven completed projects and two works-in-progress have been published. E-QIPS has been introduced at national meetings including the Society of Academic Urologists (SAU) and AUA2022. Presentations are planned for upcoming AUA section meetings to further promote and encourage participation. We have begun discussions with AUA Publications to identify the best venue for publication of these projects in the future.

We invite all members of the urological community to showcase their QIPS initiatives by submitting a project. We are specifically looking for concise tutorials of proven urological practice improvement strategies that can be replicated and applied to other practices to potentially increase safety, efficacy and efficiency of patient care. We would be excited to review any projects fitting this description, whether they be in the operating room, clinic, ambulatory centers or other appropriate environments. We also encourage you to visit the website to view the excellent projects already part of the E-QIPS repository. For further details on how to submit a project or to view E-QIPS Guides, please visit AUAnet.org/E-QIPS.

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How I Became “The Whiz”

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Can you imagine the joy of being able to entertain a 5-year-old child and a 95-year-old at the same time? Magic is a unique hobby that allows for just that.

As a youth, I had a deep curiosity about magic. I grew up in a small town, Wooster, Ohio, and enjoyed going to magic shows in nearby cities. Over time, I developed a limited repertoire that I used to entertain others.

During my second year at the University of Wisconsin, I went to the Rose Bowl game in Los Angeles. I stumbled into a joke/magic store. There was an older man at a counter doing magic tricks with cards. I asked for his deck of cards and did a simple trick where I noted the bottom card of the deck (called the key card) and asked the older man to place his card on the top of the deck. The man behind the counter cut the deck and placed that key card on top of his card. I fanned the deck with the faces toward me, noted the card below the key card, and then revealed it as magical a flourish as possible.

Another customer was standing beside me. Observing the simplicity of my trick, he asked me, “Do you know who this man is?” When I told him I didn’t recognize him, he told me to look at the wall behind the counter. I saw life-size photos of famous magicians, including Harry Houdini, Howard Thurston and Harry Blackstone. I matched one picture with the man behind the counter and I discovered that I had performed a magic trick on the great Harry Blackstone Sr. What chutzpah! (Yiddish for “extreme self-confidence”)

Mr. Blackstone then showed me a few tricks and offered his book on learning magic. I bought the book, Blackstone’s Magic Anyone Can Do, and it launched my career as “The Wiz.”

I practiced the tricks in Blackstone’s book and added a few card and coin tricks to my limited repertoire. Medical school at Ohio State did not allow time for either the practice or performance of magic. I did enter a few talent contests but was never able to outperform the talents of my fellow students. I did, however, meet another famous magician and inventor, U. F. Grant, who was a descendant of President U. S. Grant.

U. F. Grant suggested that I join the International Brotherhood of Magicians, and he introduced me to the local club in Columbus, Ohio. There, I met several magicians who were willing to share their magic and offer suggestions for improving my craft. I joined the club after a tryout requiring a 15-minute routine. This short performance was intense, as these were seasoned magicians who would be critical of my mistakes. Nevertheless, all went well, and I was welcomed into the brotherhood. I have remained a member for 50 years and have achieved the title of “Order of Merlin” for my long-term commitment to all things magical.

As a med student, I would travel with “my act” to Michigan’s Upper Peninsula, doing weekend shows at ski resorts in exchange for a ski lift ticket. My career as a resort magician ended abruptly on my return to Columbus, Ohio. When I opened the trunk of my car, I discovered that my rabbits had frozen to death! I was shocked and saddened, and since that day I have never included animals in any of my performances.

I did receive a favorable response when I volunteered to do a magic show for the prisoners at the Ohio State Penitentiary. There was not much competition, and I had a genuinely captive audience, but they seemed to truly appreciate the diversion my illusions provided.

I moved to New Orleans in 1979. I frequented the Tulane University campus and once attended a talent night competition for undergraduates. A freshman, Gary Mandelblatt, did a magic routine that ended with a torn and restored newspaper trick. I approached Gary and told him that I was an amateur magician who would like to learn that trick.

He obliged, and the torn and restored newspaper routine has been my closer ever since.

After medical school, I became interested in public speaking, using magic to enhance my messages. I bring out the newspaper and tear the paper into many pieces. I use this as a metaphor for the current health care system often being torn into many pieces, including conflict between doctors and patients, doctors and hospitals, doctors and insurance companies, and, of course, between doctors and the legal profession. I then talk about the rough edges of the torn paper corresponding to the rough edges that some doctors experience, such as burnout. I recommend that members of the audience consider following a few of the suggestions in my presentation. I conclude by saying, “Amazing magical results are in store for all of you!” as I restore the paper to its original condition.

Along the way I had the opportunity to meet David Copperfield (Fig. 1), and perform for such luminaries as Hall of Fame football players Joe Montana and Jerry Rice. (Fig. 2)

Magic was a great icebreaker...
with my younger patients. It's a challenge for a 5-year-old patient to overcome the anxiety and fear of a doctor's appointment. However, using magic, it was easy to win them over after finding that nickel behind their ears!

Often, older patients who learned that I was a magician would request a trick. If I was on schedule, I would ask patients to come out of the examination rooms and into the reception area. I would do a trick, and I would close by saying, “Showtime is over. Everyone, please return to your rooms.”

I encouraged my 3 children to learn a few magic tricks; all 3 showed initial interest, but to date, none have made it to “America’s Got Talent” or “American Idol.” I also do magic for my grandchildren, who refer to me as “G-Wiz.”

On occasion, I am asked to do a magic show at their school. One grandson, just 3 years old, seems to be more impressed with how the magic fools him and less concerned about showing his skill to others.

You might be wondering how “The Wiz” became “The Whiz.” As a urologist, the word “whiz” has a special meaning for us and our male patients. I changed my name to “The Whiz,” enjoying the double entendre provided by adding that single letter.

Well, there you have it, from the origins of “The Whiz” to my present-day devotion to the hobby. Equipped with my small inventory—a deck of cards, some dollar bills and a few rubber bands—I am always ready to perform. At a moment’s notice, my doctor’s hands swing seamlessly into sleight-of-hand. Magic can be mystical, and magic can even be medicinal. I love to dispense it whenever and wherever I am requested. Just ask me.

### How I Became “The Whiz”

Continued from page 39

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### Giants of Urology

**W. Hardy Hendren III, MD, 1926–2022**

Ron Rabinowitz, MD, FAAP, FACS

University of Rochester Medical Center, New York

On March 1, 2022, Dr. Hardy Hendren, one of the foremost pediatric surgeons in the world, died at age 96 (Fig 1.). He was born on February 7, 1926, in New Orleans, Louisiana and at age 7 moved with his parents and 2 sisters to Kansas City, Missouri. Following family tradition, he graduated high school from the Woodberry Forest School in Virginia at age 17. At a high school football game, he met the love of his life, Eleanor McKenna, whom he married at age 21; they were life partners for the next 75 years. After enrolling at Dartmouth, he enlisted in the Navy in 1943 and became a carrier-qualified naval aviator aboard the USS Saipan.

Following 3 years on active duty, he returned to Dartmouth for his BA degree and his first 2 years of medical school. He graduated cum laude from Harvard Medical School in 1952. As a senior, he was an instrumental leader in the creation of the National Internship Matching Program from the Boston Pool Plan. Following an internship and residency at Massachusetts General Hospital (MGH), including a year at Children’s Hospital Boston under Robert Gross, he completed a chief residency at MGH, followed by a chief residency at Boston Children’s.

In 1960, after 8 years of surgical training, he returned to MGH as Chief of the new Department of Pediatric Surgery, where he remained for the next 22 years. In 1982, he became Chief of Surgery at Boston Children’s Hospital and the first Robert E. Gross Professor of Surgery at Harvard Medical School, a position he held for 16 years. In 2012, Dr. Hendren was named Distinguished Robert E. Gross Professor of Surgery at Harvard Medical School, Chief of Surgery Emeritus at Boston Children’s Hospital and Honorary Surgeon at MGH. Harvard Medical School established the Hendren Chair in Surgery in 2008. In 2014, colleagues and former trainees formed The W. H. Hendren Education Foundation for Pediatric Surgery & Urology. The Hendren Project, a nonprofit online educational resource for pediatric surgeons and urologists, now has over 5,000 regular users from 138 countries.

Hardy Hendren was a pioneer in the reconstruction of the most complicated general surgical and urological congenital anomalies. In addition to his clinical and surgical expertise, he was a prolific writer, authoring more than 300 publications. A committed caregiver, he was also a world-renowned teacher, traveling to more than 60 countries to perform reconstructive surgery. He lectured the world over, teaching the management of these complex cases. Dr. Hendren was a member of and had leadership roles in numerous scientific organizations, including the American College of Surgeons, American Surgical Association, American Pediatric Surgical Association, AUA, Society for Pediatric Urology, British Association of Pediatric Surgeons, American Academy of Pediatrics, American Association of Urology Fellow (Surgical Fellow and Urology Fellow), Royal College of Surgeons of England and the Royal College of Surgeons of Ireland. Dr. Hendren received many prestigious awards, including both the William E. Ladd Medal and the Urology Medal from the American Academy of Pediatrics, the Denis Browne Medal from the British Association of Pediatric Surgeons, the Distinguished Service Award from the American Pediatric Surgical Association, and both the Certificate of Achievement Award and the Victor Politano Award from the American Urological Association (Fig 2.).

In 1960, after 8 years of surgical training, he returned to MGH as Chief of the new Department of Pediatric Surgery, where he remained for the next 22 years. In 1982, he became Chief of Surgery at Boston Children’s Hospital and the first Robert E. Gross Professor of Surgery at Harvard Medical School, a position he held for 16 years. In 2012, Dr. Hendren was named Distinguished Robert E. Gross Professor of Surgery at Harvard Medical School, Chief of Surgery Emeritus at Boston Children’s Hospital and Honorary Surgeon at MGH. Harvard Medical School established the Hendren Chair in Surgery in 2008. In 2014, colleagues and former trainees formed The W. H. Hendren Education Foundation for Pediatric Surgery & Urology. The Hendren Project, a nonprofit online educational resource for pediatric surgeons and urologists, now has over 5,000 regular users from 138 countries.

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The Safety and Efficacy of Sexual Supplements

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There is an increasing number of patients looking for natural options to aid in their sexual functioning. This has become a growing industry and the global market for sexual enhancement supplements is estimated at $300 million in the year 2020 and is projected to reach $608 million by 2030, based on a compound annual growth rate >9%. This has attracted many companies to distribute products with many sometimes false claims. These products are also of varying quality and sometimes with contaminants like prescription drugs. Generally, manufacturers do not need U.S. Food and Drug Administration (FDA) approval before producing or selling but must ensure safety and good manufacturing practice. The FDA acts against unsafe products after they reach the market under the Dietary Supplement Health and Education Act of 1994. There have been reports of erectile dysfunction (ED) supplements containing prescription drugs such as sildenafil and tadalafil. The FDA maintains a website for “Tainted Sexual Enhancement Products” at https://www.fda.gov/drugs/medication-health-fraud/tainted-sexual-enhancement-products.

Most herbal supplements provide minimal harm; however, there are limited efficacy data. Verification by the United States Pharmacopeia, an independent nonprofit organization, ensures the product contains the ingredients on the label in the declared potency and amount, does not contain harmful contaminants and has been made using good manufacturing practices. Unfortunately, most of the sexual supplements available do not utilize any independent testing like that done by the United States Pharmacopeia to assure product quality. Thus, quality is the main concerning feature in this product market, which limits any recommendation for use. As providers, we should warn our patients that although there may be low safety risks, they may not be getting exactly what they are paying for.

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The following section is a breakdown of some of the most common ingredients found on the market today.

Ginseng

There are several different types: Korean, Asian, Chinese or red ginseng, American ginseng and Siberian ginseng. Ginsenosides are the principal molecular ingredients of ginseng.

MOA: Activates endothelial NOS to release nitric oxide (NO) and inhibit calcium accumulation. Also, it can activate large-conductance K calcium channels in smooth muscles. Has antioxidant properties.

AEs: Headache, nausea, constipation, insomnia.

Research: In an article by Choi et al, 8 weeks of ginseng tablets vs placebo resulted in a statistically significant increase in International Index of Erectile Function (IIEF-15)
“As providers, we should warn our patients that although there may be low safety risks, they may not be getting exactly what they are paying for.”

from mean±SD 40.95±7.05 to 46.19±12.69.4

maca (Lepidium meyenii)

Used for centuries by native Andean populations as an aphrodisiac, energizer and enhancer of fertility and sexual function.

MOA: Unknown.

AEs: Gastritis and insomnia.

Research: Only 1 RCT, which examined 50 men with mild ED.2,3 The authors concluded that the data were insufficient to draw conclusions on the efficacy of maca relative to sexual function.

Tribulus terrestris

Used in medicinal herbs by Ayurvedic medicine for various ailments, in Western medicine it is used to improve sexual function.

MOA: The ingredient protodioscin may lead to an aphrodisiac-like effect via an increase in some sex hormones. Ertogenic effects are via conversion of protodioscin to dehydroepiandrosterone. Concentration-dependent relaxation of the corpus cavernosum via NO/NO synthase pathway.

AEs: Elevation of transaminases leading to hepatic toxicity, nephrotoxicity.

Research: A prospective RCT included 180 males 18–65 years old with mild to moderate ED.7 Exclusion of hypertension, diabetes mellitus (DM) and metabolic syndrome. Results showed that IIEF increased 2.7 points in the Tribulus group (p<0.0001). However, there was no change in serum testosterone levels.

Horny Goat Weed (Yin Yang Huo)

Epimedium species, usually E. grandiflorum; leaves or roots are used. Commonly used in Chinese medicine.

MOA: Active ingredient = icariin (a flavonol glycoside) with phosphodiesterase type 5 inhibitor activity.

AEs: Generally mild. One report of hypomania and tachycardia.

Research: There have been no human studies. In animal studies, rats were fed icariin for 4 weeks following cavernosal nerve injury and showed improved penile hemodynamic parameters when compared with placebo.5

Yohimbe/Yohimbine

Yohimbe bark extract is traditionally used in Africa as an aphrodisiac. Modern-day marketing is for ED and delayed orgasm.

MOA: It is believed to block the alpha-2 adrenoceptors in the locus coeruleus in the brain. In the periphery, it’s suggested to inhibit alpha-1 and alpha-2 adrenoceptors as well as enhance the release of NO from cavernosal endothelial cells.

AEs: High blood pressure, increased heart rate, bronchospasm, palpitations, insomnia, anxiety, irritability, shivering, sweating, nausea, flushing and headaches, which all can be attributed to its central adrenergic activity.

Research: A meta-analysis (1998) reviewed 7 placebo-controlled trials and determined yohimbine was superior to placebo for the treatment of ED.2,4

Fenugreek

One of the oldest medicinal plants, it has been described as a panacea, a cure-all. A description of the plant was found in “Ebers Papyrus” circa 1550 BC.

MOA: The seeds contain several compounds: dioxygen–a precursor for hormone production, amino acids (arginine), vitamin D, essential oils and lipids.

AEs: None reported.

Research: One double-blind, placebo-controlled RCT in 56 males without ED: 600 mg fenugreek vs placebo for 6 weeks.7 It led to an increase in sexual arousal and orgasm domains on Derogatis Interview for Sexual Functioning–Self Report scale. It also increased muscle strength, energy and well-being. However, total testosterone and prolactin levels remained normal.

Arginine

It has a long history as a sexual supplement, especially before phosphodiesterase type 5 inhibitor was introduced.

MOA: It is an immediate precursor of NO. When using supraphysiological doses (usually >3 mg/day), increased production of NO ensues. The increased bioavailability of NO is thought to enhance erectile function.

AEs: 10% decrease in systolic blood pressure.

Research: In a placebo-controlled RCT by Chen et al, 50 men with ED were randomized to 5 gm/day or placebo.8 At followup men with ED were randomized to 5 gm/day or placebo.9 At followup of 2 weeks, 31% L-arginine group vs 12% placebo group showed an increase in erectile function. The L-arginine group also showed increased urinary NO production.

Vitamin D

Sources: Sunlight, fatty fish, fortified milk. Deficiency is associated with cardiovascular disease, hypogonadism, depression and DM.

MOA: Increases endothelial NOS, affecting endothelial function.

AE: Weakness, dry mouth, nausea, vomiting.

Research: Tirabassi et al in 2018 showed a positive correlation with supplementation in bivariate analysis independent of testosterone levels, DM, hypertension or smoking status.9 Canguven et al in 2017 showed that 600 K IU/month for a year led to significant improvements in IIEF-5, from 13.88 to 20.25.20

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References:

Special thanks to Drs. Kareim Khalafalla and Samuel Ohlander at the University of Illinois at Chicago.

For pregnant women, diabetes is related to risks in pregnancy and to developmental and neonatal malformations in the fetus. Consequently, diabetes is aggressively treated in women during pregnancy. But men don’t carry offspring, and a compelling question is whether to treat diabetes with medication as vigorously for the male attempting to conceive with his partner.

Over 1 million live births from mothers without diabetes or hypertension and who were younger than 35 years old over a 20-year period were studied from the Denmark nationwide birth registry. Offspring were counted as exposed if the father had been prescribed any diabetic medication during the development of the fertilized sperm, defined as 3 months before conception. Over 36,000 offspring were observed to have 1 or more major birth defects, out of which somewhat over 7,000 were exposed to diabetic medications for the father, including insulin, metformin, sulfonylurea and a handful of others. In the metformin-exposed group, birth defects were statistically increased, with an odds ratio of 1.4 compared to insulin-exposed groups, unexposed siblings or offspring of fathers filling a metformin prescription before or after the fertilized sperm period. Out of all birth defects, genital anomalies were found to be more prominent in those with fathers treated with metformin and exclusively in boys, with an odds ratio of 3.4.

Metformin is a well-established first-line therapy for diabetes. This study presents compelling evidence that using it during the 3 months prior to conception in fathers substantially increases the risk of major birth defects and especially genital anomalies in baby boys. While this observation needs to be replicated in other studies, it certainly gives pause to using metformin to treat diabetes in fathers in the preconception period.


Special thanks to Drs. Susan Talamini and Samuel Ohlander at the University of Illinois at Chicago.

Between 2003 and 2013, the use of testosterone replacement therapy increased 3- to 4-fold in the United States. Given the ubiquitous marketing, availability and consumer awareness of this therapy, its use is expected to continue to grow. Consequently, research into potential adverse events and factors that predispose to problems is crucial for patient safety. This multi-institutional retrospective cohort study investigated the risk of major adverse cardiovascular and thromboembolic events associated with polycythemia secondary to testosterone therapy.

After matching for comorbidities, 2 comparison groups were established, those who had a pre-treatment testosterone less than 350 ng/ml and who developed an elevated hematocrit, defined as greater than 52% within 1 year of testosterone therapy, and those for whom a high hematocrit didn’t occur. There were nearly 6,000 men in each group.

The authors observed the risk of a major adverse cardiovascular or thromboembolic event to be 5.2% in men who developed polycythemia compared to 3.9% in those men who did not, with an odds ratio of 1.35. When parsing different hematocrit levels, the odds of an event remained higher in the polycythemia group when defined as a hematocrit greater than 54%, but no difference was observed between groups if the hematocrit threshold was defined as greater than 50%. The authors did not find a difference in major adverse events in hypogonadal men on therapy versus those not on therapy when hematocrit levels remained below 52%. This finding supports that it is the adverse response that increases risk rather than purely the use of testosterone.

The authors conclude that the appearance of polycythemia during treatment with testosterone therapy is an independent risk factor for major adverse cardiovascular or thromboembolic events in the first year of therapy and stress the importance of considering the level of the hematocrit as an independent variable.


Special thanks to Drs. Hari Vigneswaran and Simone Civello at the University of Illinois at Chicago.

With its challenging location in the bony pelvis and care to be taken sparing delicate nerves and creating a continual urethral anastomosis, and a medical specialty in urology replete with technophiles, radical prostatectomy quickly established itself as the “killer app” for the surgical robot. For other urological surgeries such as bladder cancer, the jury is still out.

The iROC trial was an investigator-initiated, phase 3, multicentered, randomized study conducted at 9 high-volume centers in the United Kingdom comparing open radical cystectomy to robotic-assisted laparoscopic radical cystectomy for nonmetastatic bladder cancer with less than or equal to N1 disease. Importantly, all robotic cystectomies were followed by intracorporeal reconstruction, distinguishing iROC from the recent landmark RAZOR trial. Approximately 300 patients were randomized 1:1 to each arm, with the primary endpoint of days outside a hospital and alive within 90 days from surgery, along with secondary outcomes including quality of life and survival.

Most patients had good functional status with ECOG 0-1, and approximately one-third of the patients received neoadjuvant chemotherapy. The median number of days outside the hospital within 90 days of surgery was statistically improved for the robotic arm by 2 days, at 82 versus 80 days. There was no difference in survival. Length of stay, at 7 versus 8 days, thromboembolic events, at 2% versus 8%, and wound complications, at 6% versus 16%, favored robotic surgery.

While not a slam dunk in survival, this well-conducted study seems to favor using the surgical robot in radical cystectomy in length of stay, thromboembolism and wound complications.
The first face-to-face annual AUA meeting since 2019 recently and successfully concluded in New Orleans. It was widely embraced by our members and industry partners. The annual business meeting was held concurrently and included the Treasurer’s report which updated those in attendance on the AUA’s financial position and related activities particularly in regards to the fiscal year 2021. Routinely, the annual Treasurer’s report follows in AUANews in an effort to additionally communicate to the membership on the status and progress of the AUA in regards to current financials and outlook.

The AUA’s finances are reported on a combined basis. The four entities include the American Urological Association, Inc. (AUAER), the American Urological Association, Inc. (AUA Inc.), the American Urological Association, Inc. Political Action Committee (AUAPAC) and the Urology Care Foundation, Inc. (UCF). Collectively, these entities are referred to as the “AUA.”

The return to an in-person Annual Meeting for 2022 follows two years of unpredictable circumstances and incredible resilience. In 2020 a great deal of uncertainty remained related to COVID-19 and to the past and ongoing impact on in-person meetings. There was a certain optimism around the reality of having a re-scheduled annual meeting in September of 2021 in Las Vegas. We all know that in the end, an in-person meeting was not feasible. Once again, the quickness and adaptability of AUA Secretary John Denstedt, Office of Education chair Jay Raman and AUA staff made the conversion of the annual meeting to a virtual only format not only possible but viable.

The line graph in Figure 1 depicts historical operating results and includes budget projections for 2022. The blue line reflects operating revenue and the orange line operating expenses. A sharp downturn in both revenue and expenses is noted for 2020 which is reflective of the loss of the in-person meeting. Remember that the AM is the largest source of operating revenue for the AUA. Concurrently, expenses were curtailed with the execution of aggressive cost control measures that resulted in a small positive margin for 2020. 2021 operating results, on the other hand, reflect a substantial positive margin. This is, in large part, a result of non-recurring revenue from the dogged pursuit by AUA staff to obtain federal COVID relief funds including the forgiven PPP loan ($3.5M) and the Employee Retention Credit program ($3.25M). That, along with final 2020 meeting cancelation insurance proceeds, accounted for more than $9 million of revenue unique to 2021. Budgeted revenues and expenses are expected to more closely resemble pre-COVID levels in 2022.

The pie chart in Figure 2 further breaks out sources for revenue and expenses for the combined AUA entities fiscal year 2021. The ‘Miscellaneous’ category on the revenue side includes the federal non-recurring revenue; this category routinely represents a much smaller part of the pie. As mentioned, the AM is the usual predominant source of revenue for the AUA, followed by the Office of Education and Publications are. Surplus funds generated by these programs are used to support the mission-based programs of the AUA within education, research and advocacy. The combined revenue for 2021 exceeded $44 million and included several a-typical revenue items specific to business support during the pandemic. The combined expenses were slightly over $34 million and reflected mitigating efforts in many programs and support areas.

The AUA is an agile organization that has continuously placed a strong emphasis on fiduciary responsibility to its membership. The Board of Directors and seasoned AUA management team have a long history of careful fiscal planning and stewardship. This remains essential to the sustainability of the financial health of the organization and allowed the AUA to withstand the unpredictable challenges of the last 2 years.

Over the last decade, the AUA board has approved fiscal policies presented by the Finance Committee to limit deficit spending and to allow for the expansion of member programs including Data, Science & Quality, and Policy & Advocacy. More recently, the Board has supported programs to enhance supplemental revenue including through publishing royalties. Last year the AUA Board completed a strategic and comprehensive analysis of spending needs and investment policies. That effort was to ensure that AUA will continue to meet the short-, intermediate- and long-term cash needs and spending obligations necessary to support its mission.

Through a combination of prudent annual budgeting and budget reforecasting, the AUA Board has demonstrated that it can proactively identify challenges to revenue streams and adjust operations as needed. At the same time, the AUA strives to recognize and capitalize on new opportunities as they present. Within the next month or so, the AUA staff and financial team will begin the 2023 budget and 2022 budget reforecast process. This will include careful analysis and input from all programs. We have recently finished a long-term investment allocation analysis with our advisor, Vanguard, which validated our investment strategy and affirmed AUA is adequately positioned to withstand recent market volatility.

The AUA remains committed to the tripartite mission of education, advocacy and research to advance urologic care and to bring value to our members and our patients. As Treasurer and part of the AUA financial team, I welcome your questions and input.

“The AUA’s finances are reported on a combined basis.”
Greetings from the New Chair

Matthew Nielsen, MD, MS  
AUA Science and Quality Council Chair
University of North Carolina, Chapel Hill

It is a great honor for me to write to you today in my first column as Chair of the AUA’s Science & Quality (S&Q) Council. For those of you I haven’t yet had the chance to meet, I grew up in the Midwest, completed medical school and residency at Johns Hopkins and joined the faculty at UNC Chapel Hill in 2008, where I currently serve as Professor and Chair. I’m a urologic oncologist and health services researcher and have had the privilege to serve in a variety of roles locally at UNC and nationally with the AUA and other organizations at the interface of quality, policy and evidence-based performance improvement.

The AUA established the S&Q Council structure in 2014, with J. Stuart Wolf as the inaugural Chair. This structure integrates and coordinates efforts across the Data, Guidelines and Quality Improvement and Patient Safety (QIPS) Committees, creating invaluable strategic alignment to support the mission of advancing urology. After completing the AUA Leadership Program under the mentorship of Past President Tony Bueschen in 2013, I served on the QIPS Committee under Dr. Wolf’s leadership and was honored to be appointed QIPS Committee Chair in 2019, serving in that role during Dr. David Penson’s term as S&Q Council Chair. I am personally very grateful to Drs. Wolf and Penson for their mentorship, and we should all be very grateful for their leadership, during which time the Council has positioned the AUA to meet the challenges of the volatile and uncertain environment of health care delivery in the 21st century. These are big shoes to fill.

Thanks to the vision of Drs. Wolf and Penson, and the tremendous contributions of AUA members and staff across the S&Q Committees, we have much to celebrate. The AUA Guidelines are the gold standard in the specialty with unparalleled rigor and reach. Dr. Penson led a refinement of the guidance document types published by the AUA, maintaining the excellence of the Guidelines and adding Clinical Consensus Statements and QI Issue Briefs to better meet the needs of members. The AUA Census provides invaluable and unique insights into urology practice, and AQUA, the AUA’s Qualified Clinical Data Registry, continues to grow, providing a vehicle for quality improvement and participation in federal payment programs, as well as a unique resource for urology research. The QIPS committee convened a Measure Evaluation Panel to support the stewardship and strategic development of urology-specific quality measures in AQUA, and launched Engage with QIPS (E-QIPS), a learning community to support dissemination of best practices and a space for members to share experiences and practical tools to improve patient care.

We are excited to turn the page on the next chapter of the S&Q Council, building on the successes of the past several years and continuing to pursue further alignment to better serve our members, our patients and the specialty. Given the tremendous momentum across Guidelines, the AQUA registry, the Census and activities in QIPS, opportunities for the S&Q Council’s strategic integration to deliver value to our members, our patients and other stakeholders are limitless. I welcome your input and participation, and am grateful for the opportunity to serve in this new role.
Recap of the Society of Urodynamics, Female Pelvic Medicine & Urogenital Reconstruction 2022 Program

at the AUA Annual Meeting

David A. Ginsberg, MD
SUFU President
Keck School of Medicine of USC, California

After a two-year hiatus due to the pandemic, it was wonderful for SUFU (Society of Urodynamics, Female Pelvic Medicine & Urogenital Reconstruction) to be able to host an in-person program at the AUA Annual Meeting. The theme was how the various AUA guidelines, applicable to the practice of female pelvic medicine and reconstructive urology, should be optimally interpreted and used. Drs. Jaspreet Sandhu and Blayne Welk did an outstanding job putting the program together, which was kicked off by Dr. Peter Clark, who recently rotated off as Chair of the AUA Practice Guideline Committee, who discussed the guidelines process. There were five main topics that were covered during the afternoon session.

The first few sessions, moderated by Dr. Sandip Vasavada, focused on overactive bladder with debates on the optimal use of oral therapies and third line therapies once oral therapies have failed. The potential concerns related to impact on cognition with anticholinergics (as well as other side effects such as dry mouth and constipation) versus the potential extra cost associated with beta-3 agonist use was discussed. Drs. Doreen Chung and CR Powell debated the optimal third line therapy for a 60-year-old woman with OAB. The primary take home was there is not one option for each patient with a variety of factors impacting the decision such as associated other symptoms (e.g. SNS would be a preferable option in patients who also have fecal incontinence or issues of incomplete emptying), avoiding botulimum toxin if a patient is unable to catheterize and avoiding PTNS if the patient cannot attend weekly sessions for the first 12 weeks of therapy (though that may be evolving with the ability to use an implantable tibial nerve stimulator).

Drs. Kathleen Kobashi and Rena Malik moderated the sessions focused on stress urinary incontinence (SUI). The first debate focused on repeat midurethral (MUS) vs nonmesh sling for a woman with recurrent UTI and the second debate of this session focused on whether to reassure or encourage an alternative for a woman who is unsure about the safety of a synthetic MUS. For recurrent SUI, both MUS and autologous fascial slings (AFS) are viable options and patient counseling is an important part of the process towards making a decision. For the patient unsure about synthetic slings, counseling regarding the pros and cons of all options—pelvic floor therapy, MUS, AFS and urethral bulking—allows for patients to be optimally educated and allow for a choice to be made in a shared decision making process. In fact, with many of the above mentioned alternatives being viable options for each scenario, the process of shared decision making was a vital and common theme and take home message from both debates.

Dr. Alan Wein moderated the sessions focused on urodynamics, which went through a variety of case scenarios evaluating how these studies should be optimally used. There is general agreement that urodynamics are unnecessary in straightforward patients with SUI or overactive bladder. Clinical scenarios that were presented in this session highlighted when urodynamics can be helpful and included several examples of patients with neurogenic lower urinary tract dysfunction (NLUTD) and a woman with incomplete bladder emptying, a large bladder diverticulum and bladder neck obstruction. All patients with NLUTD do not require urodynamics; patients that volitionally void with a low PVR can be managed without urodynamics unless needed to guide therapy. However, patients on CIC, or those that void with elevated residuals, should undergo UDS to complete risk stratification and evaluate bladder storage pressures as well as to help guide treatment.

The sessions on incontinence after prostate treatment, moderated by Dr. Kurt McCammon, focused on the effect of radiation therapy (XRT) on post-prostatectomy incontinence (PPI) and the role of urinary diversion in patients with intractable bladder neck contracture (BNC) and/or multiple artificial urinary sphincter (AUS) failures. While both male slings and the use of an AUS are options for select men with PPI, the consensus from the panel was that most men with prior XRT do better after AUS for PPI. Men with multiple prior AUS failures and/or intractable BNC continue to be challenges for the clinicians caring these patients. The consensus of this panel was that not only is there a role for urinary diversion, but this is an option that may be considered earlier than when it is often discussed with the patient. This is one of those challenging clinical scenarios where we often trial many less invasive options that are not always successful. The option of urinary diversion, which resolves the issue, may be considered sooner in the treatment paradigm for select patients rather than continuing to try and resolve the recurrent BNC or placing multiple sphincters in patients without success.

Dr. Jennifer Anger moderated the recurrent UTI sessions, which focused on the role of cranberry and nonantibiotic solutions as well as long-term antibiotic prophylaxis. Cranberry continues to have a role for women with recurrent UTI and has a conditional recommendation in the Recurrent UTI Guidelines. Other options such as methenamine, D-mannose and increasing water intake were mentioned and are clinically used; however, there was not enough evidence to include them as guideline recommendations. One of the take home messages from this session was that further evidence is needed to better understand the potential role of these nonantibiotic options. In addition, the role of next generation sequencing of the urinary microbiome was discussed; it was agreed that this diagnostic test is not ready for prime time and would likely only lead to overtreatment of bacteria that may not require therapy. Lastly, Drs. Chai and Abraham debated on the use of long-term antibiotic prophylaxis with the consensus being that this should be discussed in a shared decision making manner, with a through discussion of the risks and benefits, for women with recurrent UTI.
SECTION AND SPECIALTY MEETINGS

North Central Section AUA, 96th Annual Meeting

Brad Schwartz, DO, FACS
President, North Central Section
Southern Illinois University, Springfield

“Once you stop learning, you start dying.”
Albert Einstein

I would like to take this opportunity to invite everyone to the 96th Annual North Central Section (NCS) meeting of the American Urological Association to be held in Chicago, Illinois, August 28–31 at the Sheraton Grand Chicago Hotel. This is my 20th year being a part of the NCS and I am extremely excited about this year’s meeting. The theme this year is “Teaching and Learning: All in the Name of Education.” Being involved in teaching and education during my entire career of 30 years, I am genuinely excited to preside over this meeting with a star-studded group of invited speakers. Robert Sweet, MD from the University of Minnesota is world renowned for his role in expanding, defining and creating educational models in artificial intelligence and simulation. Duke Herrell, MD from Vanderbilt University has spearheaded and co-created a technological center that arguably is second to none. He and his basic science partners helped create the Vanderbilt Institute for Surgery and Engineering, where they are developing bench-to-bedside technology that will reshape how we operate. Lastly, Kathleen Kobashi, MD, who is the Chair of Urology at Houston Methodist Hospital, is well known for her academic efforts looking at generational gaps, ethnic diversity and how we learn in the academic setting. These 3 exceptional speakers are joined by many in-section experts we have assembled to promote the art of teaching at all levels while keeping an open mind to learn what has yet to be mastered.

Our NCS Secretary, Elizabeth Takacs, MD, and the Board of Directors have spent endless hours bringing back popular programs such as 2 pre-meeting endourology courses requiring pre-registration, open mic and power hour. There are numerous panel discussions and opportunities for interactive sessions, including balloon debates and 1 session of 4 different controversial topics with winners decided by audience polling. The AUA Course of Choice is a “Guidelines Approach to the Management of Urinary Tract Infections.” For our younger urologists, there is an hour-long speed mentoring session, followed by the NCS Happy Hour and capped off with the Young Urologists Mixer. A new feature will promote 1 state society in our section, and they will spearhead the session from start to finish. The inaugural year will feature the Michigan Urological Society with John Stoffel, MD moderating a balloon debate on “Managing Chronic Urinary Retention.” We will also have talks on personal finance, wellness and burnout for residents, coding and billing, and transition to practice. As in the past, we will be having the advanced practice provider session, and the health policy meetings play a significant role in the overall agenda. The ever-popular video session and the Resident Bowl, along with Bizarre and Interesting cases, will be on the program again. A timeless pride of the Section is the quality of our residents who attend the programs and present their work at the NCS. As usual, we will have many poster and podium sessions on all aspects of urology, with many of these presented by the young future stars of urology.

On the social front, the opening night will once again experience the NCS Welcome Reception held in the exhibit hall, featuring local foods and beverages, with an opportunity to engage with our industry sponsors. Monday night, we will host the NCS Happy Hour and Young Urologists Mixer. The final evening, guests will be encouraged to attend the closing reception with great food, entertainment and the chance to finish the meeting with new and old friends.

We all know what the city of Chicago has to offer. In late summer, these offerings are magnified and coupled with the weather can be a source of entertainment and enjoyable activities for you and your family. My wife, Brandi, and I cordially invite you and your family to join us for what is expected to be the most up-to-date program for learning, a wonderful environment for camaraderie, and a fantastic venue to network and relax. In the immortal words of my father, “Let each become all that he or she is capable of being through education.” We look forward to seeing you in August!

New York Section Annual Meeting, Edinburgh and Dublin

Lane S. Palmer, MD
New York Section, AUA, President

The 118th Annual Meeting of the New York Section will take place August 28 to September 3, 2022 in Edinburgh, Scotland and Dublin, Ireland.

These capital cities offer an extraordinarily stimulating historical backdrop and genuine hospitality in which we can all finally come together and enjoy the spirited educational meetings and warm collegiality that define the New York Section Annual Meetings. We arrive in Edinburgh on Sunday, August 28 and start our scientific meetings on Monday morning. We travel to Dublin on Wednesday morning by charter flight. The meeting ends on Friday, and we travel back home from Dublin on Saturday, September 3.

Our hotel bases will be the Caledonian (Waldorf Astoria) Edinburgh and The Shelbourne Dublin. Both 5-star hotels are exceptional in location in their respective city centers, as well as in elegance and style. The Waldorf-Astoria, or “The Caley,” as it is affectionately known among Edinburgh locals, is situated at the west end of Princes Street, nestled in the shadow of the historical Edinburgh Castle, just 2 minutes’ walk from the designer stores and fashionable bars of George Street. The Shelbourne Dublin, a Renaissance Hotel, is set in a 200-year-old majestic building.
NEW YORK SECTION ANNUAL MEETING, EDINBURGH AND DUBLIN
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and is the premier city center hotel in Dublin. You can take a walk back in time to learn about Irish heritage and events that have shaped Dublin’s rich history and legends.

On Sunday afternoon, there will be a Tasting Orientation Tour of Edinburgh with stops to sample (food and drink) some of the city’s tasty morsels. We visit the magnificent Edinburgh Castle on Monday, which is perched high on its precipitous crag of volcanic rock, offering superb views of the city to appreciate Edinburgh’s dramatic topography. The President’s Reception will take place on the Royal Yacht Britannia—the most famous ship in the world. Launched in 1953, she sailed over a million miles as the sovereign ship of the Royal Navy. A walking tour of Dublin on Thursday afternoon will include tours of Christ Church, Teeling Distillery and Guinness Storehouse.

On our travel day (Wednesday), we move to Dublin and in the afternoon head to Palmerstown, where we will have a barbecue lunch and partake in Gaelic games, falconry and sheep herding on their spectacular grounds.

Our Farewell Gala takes place on Friday at the 18th-century Powerscourt House & Gardens, which has been described as having some of the most beautifully maintained gardens on the planet. The spouse and guest activities have been selected to offer “something for everyone.” In Edinburgh, there will be options for a bike tour, Harry Potter walking tour, tea blending, bespoke hat making, National Gallery tour and cooking classes. In Dublin, choices include Windmill Lane Studios, where U2, the Rolling Stones and REM have recorded, hiking with alpacas, Icons of Dublin tour and cooking lessons at Ballyknocken House, Farm and Cookery School.

I am pleased that Drs. Hossein Sadeghi-Nejad, Ojas Shah and Michael Schwartz have agreed to form the Scientific Committee and they have put together a superb program, which includes members of our Section as well as some of the most respected colleagues from other AUA Sections. In addition, we will have speakers from both Scotland and Ireland. The program will consist of presentations and panel discussions on urologic oncology, men’s and women’s health issues, endourology and robotics, voiding dysfunction, pediatric urology, novel technologies and socioeconomic and urological education issues.

As we emerge from the pandemic and its impact on every aspect of life, we invite you take this opportunity to join us in Scotland and Ireland for a “reset” to a New York Section Meeting steeped in education and camaraderie.

For further information, please visit our website at: https://nyaua.com/conference/conf-welcome/.

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Welcoming All to the 101st South Central AUA Annual Meeting for 2022

John W. Davis, MD  
President, American Urological Association South Central Section  
MD Anderson Cancer Center, Houston, Texas

In 2021, the South Central Section of the AUA celebrated its 100th Annual Meeting at the Camelback Resort in Scottsdale, Arizona under the leadership of President Michael Cookson (Oklahoma). As we move into our next century for the 101st meeting at the Hotel Del Coronado in San Diego, California, 2 key themes are clear: a fantastic scientific agenda and an epic venue.

The scientific committee is led by our President-elect Chad LaGrange (Nebraska), and they have come up with a dynamic agenda full of themed blocks, state-of-the-art lectures, highly ranked abstracts and panel discussions. The committee consists of Dr. LaGrange, John Davis (Texas), Michael Cookson (Oklahoma), Ajay Nangia (Kansas), Fernando Kim (Colorado), Katie Murray (Missouri), Max Gallegos (New Mexico), Brian Flynn (Colorado), Allen Morey (Texas) and Christopher Deibert (Nebraska). The themed blocks are a nice balance of urologic oncology, functional urology, reconstruction, pediatrics, men’s health, benign prostatic hyperplasia and stones. Beyond subspecialty content, there will be several areas of broad interest, including AUA and American Board of Urology updates, coding/billing update with Mark Painter, a panel on burnout and a panel on diversity/equity/inclusion. I am looking forward to an interesting town hall session titled “Dreaded Consults.”

For abstract presentations, we will continue our pattern of breakout sessions, but will try to limit dividing up the agenda too much. High ranked abstracts will be part of the general session themes. Abstracts will be presented as podiums, posters or videos. We will continue last year’s concept of the resident/fellow award abstracts being pre-reviewed by an assigned mentor and presented along with the mentor’s feedback at the meeting. Drs. Randall Meacham (Colorado) and Michael Coburn (Texas) will co-host another academic urology forum. We have changed the meeting format to place the annual banquet on Friday night. The Saturday agenda will then feature

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Figure 1. The Crown Room at Hotel Del Coronado will host our plenary sessions.

Figure 2. a, The iconic Hotel Del Coronado in San Diego, California. You will not stop taking pictures of this rotunda from so many different angles. b, Hotel Del Coronado—from the beach side. c, The hotel bar “Babcock and Story” is at the base of the rotunda and looks out at the Pacific. Many of the room names on the campus are important figures in the history of this hotel founded in 1888. Babcock and Story were the founding developers of the hotel.
With great anticipation and enthusiasm, the Society of Genitourinary Reconstructive Surgeons (GURS) will hold our first standalone Academic Congress this September 13–15 in Montreal, Canada. It is an exciting time to be a member of GURS. Our field continues to grow and have significant impact within urology. From transitional urology to gender-affirming surgery to cancer survivorship and trauma, our members help treat some of the most complex and technically demanding issues a urologist can face.

The GURS Academic Congress brings together thought leaders from across the world to discuss innovative surgical approaches, the latest science in reconstructive urology and best practices across a wide range of reconstructive areas. Our Academic Congress features multiple sessions for original research, including discussion and critique of select original manuscripts, to promote idea exchange and growth of reconstructive urology research.

The meeting begins with a session for the GURS Young Urologists, chaired by Dr. Andrew Cohen, Assistant Professor of Urology at Johns Hopkins. The session features a variety of speakers and moderators, and focuses on starting a research program, communicating to families after a bad outcome and transitioning from fellowship to practice. The session ends with a speed mentoring session, offering a chance for career guidance and networking.

The afternoon session focuses on posterior urethral and bladder neck reconstruction and will be a masterclass on this complex topic. First, leading innovators review novel surgical techniques including the use of mitomycin C and transurethral incision, ventral bulbous inlay, and endoscopic and robotic bladder neck reconstruction. Later, Dr. Drew Peterson, Professor of Urology at Duke University, discusses when to divert a radiation-induced posterior stenosis, while GURS President, Dr. Francisco Martins, Consultant Urologist at the University of Lisbon School of Medicine, makes the case for primary repair. The session continues with a series of lectures on the management of complex pelvic fracture urethral disruption and subsequent repairs. The session will cover the pathophysiology of pelvic fracture urethral injury, the current evidence and industry programs.

Our social agenda will include a Welcome Reception in the Ocean’s Ballroom, a Theme Night beachside and our annual black-tie banquet. In your free time, the island is a perfect place for long walks through the immaculately landscaped neighborhoods, public parks, golf, tennis and bicycle rides. There is a nearby marina to catch boat tours of the bay. Our section meeting is ideal for spouses/significant others to attend, and those new to the section will easily find new friends in our hospitality suite. They will likely find their way to Orange Avenue—the main business road that connects to the north part of the island (Fig. 3).

On behalf of the leadership of the South Central Section of the AUA, I welcome all members and guests from other sections to join our 101st meeting. ■

Figure 3. The north part of the island has several parks, restaurants and a view of the San Diego skyline.

SECTION AND SPECIALTY MEETINGS

Society of Genitourinary Reconstructive Surgeons
First Academic Congress

Benjamin N. Breyer, MD
Secretary-Elect, GURS
University of California, San Francisco

Jeremy B. Myers, MD
Secretary, GURS
University of Utah, Salt Lake City

“A our field continues to grow and have significant impact within urology.”
for early endoscopic urethral re-alignment, imaging of pelvic frac-ture urethral injury, postoperative erectile dysfunction and inconti-nence after posterior urethroplos-ty. The first day concludes with an expert panel covering surgical technique in treatment options for failed pelvic fracture urethral disrup-tion repairs.

The GURS Academic Congress continues the following day with a 2-part session on male genital recon-struction. The morning starts with talks on Fournier’s gangrene, including understanding the patho-physiology and biogram of Fournier’s gangrene and the surgical management. Dr. Isak Goodwin, Assistant Professor of Plastic Sur-gery at the University of Utah, will discuss flap and grafts for the treat-ment of Fournier’s gangrene. Our Charles Devine Lecture will be given by Dr. Allen Morey, Professor of Urology at UT Southwestern, on Perspectives on the Treatment of Post-Prostatectomy Incontinence and Insights.

Next, we have a podium session moderated by Dr. Jeremy Myers, Program Chair and Professor of Urology at the University of Utah. Part 2 of male genital reconstruction continues with a lecture on patient perspective and patient-reported outcome measures in gener-al urinary reconstruction, surgical technique for buried penis related to lymphedema and outpatient buried penis repair.

The second half of day 2 addresses the most complex urethral stricture, including the manage-ment of primary and failed hypo-spadias repair. Dr. Christopher Long, Assistant Professor of Urology in Surgery at Perelman School of Medicine at the University of Pennsylvania, will give an expert lecture on what’s new in pediatric hypospadias repair and pathophysiology. There will be a case-based discussion on challenges in urethral stricture disease and hypospadias among the panelists and an ab-stract session on urethral stricture disease. We complete the second day with a lecture from incoming GURS President Dr. Hunter Wessells, Professor of Urology at the University of Washington, titled, “Knowledge Gaps and Popula-tion-Based View of Urethral Stric-ture Management.”

Day 3 of the GURS Academic Congress features a video abstract session, a 2-part session on abdom-i nal reconstruction and complex challenges in cancer survivorship, as well sessions on surgical optimi-zation and frailty in reconstructive urology. Dr. Daniel Vargo, Profes-sor of Surgery at the University of Utah, will speak on complex ventral hernia repair and total abdomi-nal reconstruction. The day will also feature talks on radiation damage, pathophysiology and treatment. The afternoon will fea-ture our World Professional Asso-ciation for Transgender Health invited lecture on gender-affirming surgery from Dr. Loren Schechter, Professor of Plastic Surgery at Rush University.

We look forward to a dynam-ic 3 days of sharing new research and learning about innovations in reconstructive urology. Please join us in beautiful Montreal for this incredible session. Register at https://societygurs.org.

The Y oung Urologist Commit-tee also revitalized with the innovative leadership of Dr. Marisa Clifton, carrying on the work of her predecessor, Dr. Jay Simhan.

“‘Our Academic Congress features multiple sessions for original research, including discussion and critique of select original manuscripts, to promote idea exchange and growth of reconstructive urology research.’”
This committee utilized new social platforms such as Gather Town to forge new relationships between Section mentors and mentees who have finished training and are in practice. Interactive virtual tables allow conversations on topics ranging from wellness to hobbies and areas of professional interest beyond clinical medicine and urology specialties. They also plan to cement these relationships at our Annual Meeting with an exclusive event to keep the committee vibrant.

The culmination of all this work is, of course, the Annual Meeting. We get to revisit New Orleans in October. I won’t be leading off with a Mardi Gras parade like Dr. Thomas, but I will be proud to open our meeting nonetheless! Dr. Ryan Smith has led our Program Committee and we emerged with a diverse program that includes non-traditional topics in urology as well as health policy and traditional science. We are so excited to have keynote speakers that include my personal mentor and pioneer in health services research, Dr. Mark Litwin, as well as Dr. Duke Herrell, who is a physician-scientist who utilized his engineering background to advance robotic platforms. We have an exciting scientific program with a session in DEI for the lay urologist, and I am particularly excited to hear from Dr. Philip Pierorazio (Operating with Zen podcast and an MA AUA member) about physician coaching. Dr. Pierorazio enticed Dr. Michael Joyner to lecture on his outstanding work on human performance and exercise physiology. He has worked with elite athletes, and this promises to be an entertaining and worthwhile session. We further have the benefit of being a destination meeting with some cross-pollination with the Southeastern Section. Many thanks to Dr. Raju Thomas for providing intelligence on local speakers from their section. We have incorporated several into the program and appreciate their participation. We also thank Dr. Mary Beth Westerman for serving as a liaison on our Planning Committee to broaden our perspective. We hope to entice participants to our meeting. Drs. Thomas and Westerman were kind enough to also participate in our plenary sessions.

Finally, I have to end with the recognition our section has garnered this year. I have referenced to our Annual Meeting keynote speakers Drs. Mark Litwin (left) and Duke Herrell (right).

The program committee has reviewed 145 abstract submissions and urology nurses. We have incorporated several into the program and appreciate their participation. We also thank Dr. Mary Beth Westerman for serving as a liaison on our Planning Committee to broaden our perspective. We hope to entice participants to our meeting. Drs. Thomas and Westerman were kind enough to also participate in our plenary sessions.

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and we are in the process of populating 7 scientific podium and 2 poster sessions on topics ranging through BPH/LUTS, Prostate Cancer, stone disease etc. Each scientific session will be preceded by a short, how-to video covering topics such as Retzius sparing prostatectomy, metoidioplasty and mini PCNL. We will have 3 outstanding panels – one on conflict resolution, one on building a gender affirming surgery program and the other an international panel on nonmuscle invasive bladder cancer. Drs. Doug Dahl and Michelle Kim from Massachusetts General Hospital are coordinating a practical hands-on course on transperineal prostate biopsy. Dr. Tobi Chai of Boston University will present the AUA biopsy. Dr. Tobie Chai of Boston Massachusetts General Hospital are coordinating a practical hands-on course on transperineal prostate biopsy. Dr. Tobi Chai of Boston University will discuss the role of the AUA Instructional Course “A Guidelines Based Approach to the Management of Recurrent UTIs.”

Dr. Machele Donat from Memorial Sloan Kettering in New York will deliver the NEAUAs signature Wyland Leadbetter lecture entitled “Standardizing How We Evaluate and Report Surgical Outcomes Can Improve Patient Outcomes.” She will discuss her work on improving patient outcomes following radical cystectomy and how that applies to other areas in our field. An important and pertinent topic that we in the broader urological community need to understand, adapt and adopt, Dr. Khurshid Ghani from the University of Michigan will present a state of the art lecture entitled, “Efficient Laser Lithotripsy with The Equipment You Have” and the New England Sections Michael Blute from the Massachusetts General Hospital will discuss the role of cytoeductive nephrectomy for renal cancer in 2022.

In our Socioeconomic session we will address several diverse topics. Dr. Raj Pruthi from the University of California, San Francisco has recently surveyed academic physicians regarding compensation and will present some of this data as well as discuss various compensation models for academic and community urologists. A pertinent topic of interest to all of us. Recently, there has been increased interest and a move toward unionization in some of the residency programs in New England. We will have a panel to discuss the current state, the pros and cons of this controversial issue and other hot topics in employment and health care law.

The Young Urologists Committee, led by Dr. Angela Arlen from Yale, has arranged a panel on early career promotion and advancement and the APP group led by Susan Palmer PA from the Lahey Clinic are coordination a session based on the results of a recent needs survey circulated to Urology APPs in our region.

We will work hard and then we will play hard too! Our local arrangements committee, Drs. Matt Desai Sethi Urology Institute, University of Miami and the other an international panel on nonmuscle invasive bladder cancer. Drs. Doug Dahl and Michelle Kim from Massachusetts General Hospital are coordinating a practical hands-on course on transperineal prostate biopsy. Dr. Tobi Chai of Boston University will discuss the role of the AUA Instructional Course “A Guidelines Based Approach to the Management of Recurrent UTIs.”

The American Society of Men’s Health (ASMH) held its annual scientific meeting on Sunday morning, May 15, 2022 at the Hilton Grand Ballroom, New Orleans, Louisiana. “There is no better way of describing this than a truly multidisciplinary learning experience,” I said to those assembled at the meeting. ASMH President Dr. Joel Heidelbaugh added that “the meeting really challenged the attendees, who were largely urologists, to expand their understanding of men’s health issues beyond the traditional footprint of Urology.”

Dr. Marty Miner, Past President of the organization, kicked off the meeting with a timely and highly informative discussion that identified a number of areas in which the existing AUA Men’s Health Checklist needs to be updated. “Once these updates are adopted,” said Dr. Miner, “this Men’s Health Checklist could evolve into a highly useful clinical tool to elucidate and track men’s health issues both above and below the waist.” Studies have shown that men often delay seeking medical care and Dr. Jessie Mills followed up with a focus on how to encourage them to seek preventative care at a younger age. “As urologists we are often gatekeepers for men’s health,” he stated. “The trick is in identifying how we can use the disorders that we traditionally treat as a launchpad to address more diverse health and wellness strategies by our healthcare colleagues.”

In the next series of talks, the breadth of men’s health and wellness topics were explored. I reviewed the existing data and recommendations related to male cancer screening, with a particular emphasis on colorectal, lung, skin and prostate cancer. “While many of these malignancies do not traditionally fall within the urologist’s space,” I stated, “as men’s health advocates it is good medical care to keep these items on our patients’ dashboards, particularly as they get older. Males often avoid cancer screenings, and with the existing society recommendations, these particular screenings have proven to help men live longer.” Helping men live longer and healthier lives was the subject of the next talk that was led by Dr. Stephen Kopecky, author and preventative cardiologist at the Mayo Clinic. Optimizing men’s health through promotion of healthier lifestyles, including diet, exercise and the incorporation of statins and antihypertensive medications when indicated is an important role that we have.

As Dr. Kopecky shared, “even if urologists are not prescribing these particular medications, recognizing the indications for their use helps us to better assume the role of a true men’s health coach.” Depression and suicide are high priorities for any men’s health agenda, and Dr. Penny Jenson delivered an extremely powerful and poignant discussion on the high prevalence of these problems in our aging veteran population. Finally, this portion of the session, which focused
on holistic health and wellness, ended with a robust discussion on the impact of COVID-19 on Men’s Health by Dr. David Mushatt, Chief of Infectious Diseases at Tulane Medical Center.

The ASMH scientific session ended with a fast-paced series of talks focusing on state-of-the-art evaluation and management strategies related to urological topics that were approached through the lens of a men’s health agenda. Dr. Faysal Yafi provided an update on therapeutics for a number of sexual health issues, including erectile dysfunction, Peyronie’s Disease and premature ejaculation. Dr. Thomas Masterson delivered a practical review of regenerative strategies for sexual health, and Dr. Steve Kaplan delivered an exciting perspective on personalizing benign prostatic hyperplasia treatment. Finally, Dr. Sanoj Punnen ended the session with a provocative approach to prostate cancer screening which no longer requires the use of a digital rectal examination.

The 2022 ASMH annual scientific meeting once again pushed the boundaries of men’s health beyond male genitourinary disorders and therapeutics. Dr. Jason Jameston, who officially began his tenure as President of the ASMH at the termination of the meeting, indicated that this meeting “showed us how far men’s health has come. Furthermore, the span of topics discussed may serve as a template for the development of a true men’s health curriculum that the ASMH is actively engaged in developing.” We look forward to hearing more from the ASMH this year as they develop a series of travelling academic conferences for physicians and physician extenders. Stay tuned and look for an upcoming ASMH conference in fall 2022 in Dallas, Texas, as well as the annual scientific meeting at AUA2023 in Chicago next year.

NSAUA 2022’s Annual Meeting Will Run Its Course in Charlotte, NC: Drivers Wanted!

Julie Franc-Guimond, MD
Université de Montréal, Québec, Canada
CHU Sainte-Justine, Québec, Canada

As President of the Northeastern Section of the American Urological Association (NSAUA), it is my privilege to invite and encourage you to attend our 74th annual meeting. It is no secret that the last two years have been different to say the least, affecting almost all aspects of our lives, including the way we interact and share/discover science. Although virtual meetings held in 2020 and 2021 were definite successes, we can only be happy that we will get to meet in person for our section’s next annual meeting to be held in Charlotte, NC from October 27-29, 2022.

Dr. Naeem Bhojani, the program chair, and his committee have put together a terrific scientific program sure to provide the perfect blend of innovative information combined with practical guidance. The stellar list of experts scheduled to present includes Dr. Fred Saad, who will be the Slotkin lecturer. Dr. Saad, a world-renowned urologic oncologist, will share his knowledge and wisdom as he will disclose his personal journey caring for patients with prostate cancer. Other guest lecturers will include Dr. Manoj Monga and Dr. Amy E. Krambeck, who will discuss maximizing outcomes while minimizing risk, and will reveal their best tricks to take care of the most complex stone patients. A lecture sure to spark interest will be given by Dr. Elise De on pelvic pain management. Other talks will discuss economic benefits (Dr. Amy E. Krambeck) and the care of spina bifida patients throughout their lifetime (Dr. Peter D. Metcalfe).

Moreover, we could not meet without discussing diversity, equity and inclusion when caring for our patients (Dr. Quoc-Dien Trinh), ourselves (Dr. Casey Seideman) and various communities (Dr. Melanie Morris). Other topics will include how the human body came to light using the cystoscope and the pace of change in medical publishing to be discussed by our great colleagues Dr. Ronald Rabinowitz and Dr. Robert Siemens.

And as usual, the most sensitive subjects will be discussed during our residents’ debates, which always entertain the audience! On this year’s agenda: first-line therapies for Peyronie’s disease and the right to perform cystectomies.

Beyond the science, meeting in person will definitely translate into memorable encounters to be cherished for years to come. So get ready to share coffee and desserts in the exhibit hall, enjoy meals during industry symposiums and dress up for the president’s reception and banquet. But the event you will not want to miss will certainly be the Fun Night, during which we will visit the NASCAR Hall of Fame. Expect to be wowed by the interactive exhibit whilst you get behind the wheel of a NASCAR stock car replica, delve into the archives and/or defy your friends to compete amicably during the Pit Crew Challenge.

With such a wonderful scientific program and promising social encounters, good times are surely ahead. May many individuals attend! So, whether you are a member of our section or not, a resident, or a partner, I hope we meet in Charlotte!

For more information regarding the next NSAUA’s annual meeting, please visit: nsaua.org
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