How to make your EHR work for you

These tips, fixes, and workarounds can ease urologists’ EHR-related frustrations

Adjust your mind-set: focus on beneficial tools such as the patient portal vs. using the EHR for progress notes.

Customize your EHR to your practice to automate routine tasks—but don’t stray far from the system’s foundation.

Create prepopulated templates for common discussions or patient instructions.

Consider using a scribe, whether in person or virtually.

Convert to electronic superbills to increase billing efficiency.

Lisette Hilton / UT Correspondent

Physicians have been dealing with the frustrations of electronic health record systems for years. EHRs are widely seen as a hindrance, not a help, but does it have to be that way? Not necessarily.

“I think people have to move beyond ‘it’s a necessary evil’ and get to the point of ‘this is here to stay and how do I get it to work for me?’” said Steven M. Schlossberg, MD, MBA, chair of the AUA Data Committee and vice president and chief medical information officer at John Muir Health in Northern California.

Dr. Schlossberg is not alone in suggesting that there are ways to make the most of EHRs. Urology Times asked experts and EHR users for practical tips, fixes, advice, and workarounds that might help urologists ease EHR-associated frustrations.

Scope of the problem

About a decade into the widespread adoption of EHRs, physicians continue to report their dislike for the technology. In Urology Times’ 2018 State of the Specialty survey, use of EHRs was the

Please see EHR TIPS, on page 28

Stone disease field marked by advances and shortfalls

In this interview, Margaret S. Pearle, MD, PhD, of UT Southwestern Medical Center, Dallas, discusses the AUA’s guideline on medical management of stone disease and also touches on disposable ureteroscopes and percutaneous access.

Q&A

Margaret S. Pearle, MD, PhD

TRENDS IN STONE DISEASE

For the full article, please turn to page 18
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The concept of “surgical quality” is emerging as an important component of health care delivery. At present, though, there is no universally accepted definition of what surgical quality is; indeed, this term may mean different things to different physicians, patients, and others. A variety of efforts have been made to identify specific quality indicators that can be applied to the delivery of surgical care. One of the metrics utilized in a number of studies is the rate of readmission following a surgical intervention. Although there exists uncertainty as to how efforts to reduce hospital readmissions may affect public health, due to their easy-to-track nature, hospital readmission rates will likely remain a quality metric of interest for the foreseeable future.

As urologists, it is important that we understand factors that can affect hospital readmissions. Due to the prevalence of the condition, an increase in readmission rates associated with kidney stone procedures may account for a large burden on the health care system. Although some readmissions may be medically necessary and not preventable, it may be that certain maneuvers can reduce the likelihood of other readmission scenarios. This issue of Urology Times features a discussion of the Reducing Operative Complications from Kidney Stones (ROCKS) effort from the University of Michigan group (see page 4). This study provides the practicing urologist with a number of instructive lessons.

In the ROCKS study, Dr. Ghani and colleagues evaluated patients who underwent ureteroscopy (URS) and assessed factors associated with emergency department visits following the procedure. They found approximately 10% of patients who undergo URS will visit an ED within 30 days of the procedure, and most of these encounters are related to stent symptoms and pain. The great value of the ROCKS study is that it identifies potential areas in which care can be improved.

One need identified in the ROCKS study is an opportunity to better manage stent-related symptoms. However, given the present opioid crisis in the United States, it is important to look for ways to address this problem in a manner that does not rely on simply providing additional narcotic agents for pain control. The ROCKS team assessed that improving the educational materials provided to patients undergoing URS would better prepare them for symptoms associated with ureteral stents. A patient who has a better understanding of what post-URS stent symptoms may be expected, and how they may be mitigated, should have a better experience than a patient who is unprepared for such symptoms. It will be exciting to see if this is borne out in future studies.

From the Board
An analysis of nearly 2,000 patients undergoing ureteroscopy found that approximately 10% of the cohort had an emergency department visit after the procedure, a finding that underscores the need for developing a statewide quality improvement initiative to reduce ED visits after ureteroscopy.

Cheryl Guttman Krader
UT Contributing Editor

SAN FRANCISCO—An analysis of nearly 2,000 patients undergoing ureteroscopy found that approximately 10% of the cohort had an emergency department visit after the procedure, a finding that underscores the need for developing a statewide quality improvement initiative to reduce ED visits after ureteroscopy.

Nearly 10% of URS patients visit emergency room

The analysis included almost 2,000 patients treated with ureteroscopy at nine practices across the state. Focusing on unplanned encounters within the first 30 days after the procedure, the analysis found that approximately 10% of patients had an ED visit, of which 57% were considered potentially modifiable events, occurring for reasons of flank pain, hematuria, or urinary symptoms. Seventy percent of patients with an ED visit had a stent.

The ED visit rate among the nine practices included in the analysis ranged from 3% to 13%. Based on the observation that the practice with the lowest modifiable ED visit rate provided the most intensive patient education and because no practice had dedicated information related to stent symptoms, ROCKS addressed this gap by developing a ureteral stent patient education leaflet, which was distributed to participating practices with the hope that trips to the ED can be minimized by setting proper patient expectations.

“While we are starting small and focusing on stent-related issues for the moment, we know there are many things that we need to do to reduce ED visits after ureteroscopy.”

KHURSHID R. GHANI, MD, MS

The importance of developing a quality improvement initiative to reduce complications associated with kidney stone procedures is underscored by national data showing the high costs of these procedures associated with postprocedural ED visits and unplanned hospitalizations.

Dr. Ghani said the idea of implementing the statewide quality improvement program garnered when he and his colleague, John Hollingsworth, MD, attended a meeting on kidney stones at the National Institutes of Health.

“During the meeting, Dr. Charles Scales commented on the MUSIC quality registry for patients with prostate cancer in Michigan, and how it would be great to have a similar registry for patients with kidney stones. Discussing this remark with other members of the MUSIC team, we thought about taking the opportunity to leverage the prospective registry that we have for prostate cancer in Michigan to begin to look at kidney stones,” Dr. Ghani said.

With support and funding from Blue Cross Blue Shield of Michigan, initial steps to set up ROCKS involved identifying what data elements would be captured prospectively, recognizing that the entries would be made by non-urologists who would require training, choosing a urologist at each practice to act as a clinical champion and lead the program locally, and recruiting patient advocates who are able to provide insight on what matters to patients.

So far, 34 community and academic practices have joined ROCKS, and data have been prospectively captured from more than 7,000 patients.

TABLE MUSIC ROCKS ANALYSIS OF URETEROSCOPY PATIENTS: KEY FINDINGS

| Unplanned encounters within the first 30 days of procedure included 55 office visits (2.8%) and 77 hospitalizations (3.9%) |
| 72% of the total unplanned encounters occurred within 7 days of URS |
| Factors significantly associated with an ED visit were comorbidity, history of urinary tract infection, urinary diversion, ureteral dilation, and intraoperative complications |
| Stone clearance rate was 79% overall, 61% for renal stones, and 94% for ureteral stones |

Source: Khurshid R. Ghani, MD, MS
Age a predictor of filling opiate prescriptions post-URS

1 in 8 patients may require additional prescriptions within 30 days

John Schieszer
UT Correspondent

SAN FRANCISCO—A study examining opiate use after ureteroscopy found that younger age and greater number of preoperative opiate prescriptions were associated with the filling of additional opiate prescriptions.

Approximately 1 in 8 patients who undergo ureteroscopy for kidney stones may require additional opiate prescriptions in the short term (within 30 days), and approximately 1 in 15 patients may require additional opiate prescriptions on a longer term period (over 60 days) after surgery, say researchers from Vanderbilt University, Nashville, TN. The research was presented at the 2018 AUA annual meeting in San Francisco.

“This population is at risk for opiate dependence. We were not surprised by our findings. It was interesting for us to find that younger age was a predictor for requiring immediate post-op additional opioid requirement,” said study investigator Caroline L. Kang, MD, PhD, urology resident at Vanderbilt University, working with Ryan S. Hsi, MD, and colleagues.

Dr. Kang noted that surgical stone patients are commonly prescribed opioid medications perioperatively, but there has been little investigation into which patients require more opiate pain prescriptions. She and colleagues looked to see if there were any predictors of increased opiate requirement after ureteroscopy. They conducted a retrospective review of patients who underwent single-stage or final-stage ureteroscopy for stone disease at a tertiary referral center from January 2017 to June 2017.

For the study, the authors only included primary residents of Tennessee to allow for linkage to the Tennessee Controlled Substance Monitoring Database for opiate prescribing data. They collected demographic information including age, sex, race, body mass index, American Society of Anesthesiologists score, past stone surgery, and psychiatric history. They also evaluated surgical factors, including surgeon, operating times, presence of stent preoperatively, postoperative stent duration, access sheath use, and stone size.

The researchers performed univariate and multivariate analyses to determine predictors of additional prescription filled within 30 days, and persistent opiate use 60 days after ureteroscopy.

Dr. Kang said that among the 208 patients, 25 (12%) required an additional opiate prescription within 30 days after ureteroscopy. Additionally, 14 patients (7%) continued to use opiate medication more than 60 days postoperatively. The study revealed that younger age was associated with obtaining an additional opiate prescription within 30 days after ureteroscopy (p=.49).

“None of the patients were what we would define as chronic opioid users. We defined chronic opioid users as requiring two or more opioid prescriptions 2 or more months before surgery,” Dr. Kang told Urology Times.

Several factors linked to extended use

She said no surgical factors were found to be associated with additional opioid prescriptions filled postoperatively. However, several factors were associated with extended opioid use. Dr. Kang said the number of opioid prescriptions preoperatively and the number of days of opioid prescribed preoperatively were positively associated with additional opiate prescription filled within 30 days and after 60 days postoperatively on univariate analysis. These associations were maintained even after the opiate variables were separately modeled with demographic factors, according to the authors.

“There is a little bit of variability in the way physicians are prescribing opioid medications, and so I think that not only do we have to educate our patients better but we as providers have to educate ourselves a little bit about what the issues are,” said Dr. Kang.

Cheryl Guttman Krader
UT Contributing Editor

SAN FRANCISCO—Discharging patients without opioids for pain control after undergoing outpatient ureteroscopy (URS) with stent placement appears to be feasible, results of a pilot study show.

Conducted by urologists at the University of Vermont, Burlington, the research showed that with use of a decision algorithm for patient selection, adequate counseling, and availability of a prescription nonsteroidal anti-inflammatory drug (NSAID) to alleviate discomfort as needed postoperatively, nearly three-fourths of patients who underwent URS with stent placement were able to be discharged without any opioids.

Furthermore, when looking at the impact on outpatient resources (such as emergency department visits, telephone calls to clinic, and requests for pain medication refills), those receiving non-opioids were not more likely to visit the emergency department for genitourinary-related concerns (10% vs. 13%, p=.567). Additionally, those receiving non-opioids or no pain medication made significantly fewer telephone calls to the clinic for worrisome symptoms (21% vs. 45%, p=0.0006) and made fewer requests for prescription pain medication refills (7% vs. 24%, p=.001).

Among the patients discharged without opioids, approximately 15% did not use any pain medications postoperatively, and those who requested a refill for pain medications were prescribed only an NSAID, reported David W. Sobel, MD, who presented the findings at the 2018 AUA annual meeting in San Francisco. The research was subsequently published in the Journal of Endourology (2018; 32:1044-9).

“We are very excited about these findings showing that patients can be safely and successfully discharged without opioids, and we encourage other urologists to join in the non-opioid revolution.”

DAVID W. SOBEL, MD

Stented URS patients can be discharged without opioids

Recovery pathway encompasses pre-op counseling, post-op NSAID use

John Schieszer
UT Correspondent

Stented URS patients can be discharged without opioids.
Clinical Updates

Protocol improves pyelonephritis/sepsis management

Stone patients with OPN undergo PCN unless they have a coagulopathy or no hydronephrosis

Cheryl Gutman Krader
UT Contributing Editor

SAN FRANCISCO—Implementation of a hospital-wide clinical care protocol for managing obstructive pyelonephritis (OPN) and sepsis from stones shows potential for improving patient outcomes, according to the experience of researchers at New York-Presbyterian Hospital, Columbia University Irving Medical Center, New York.

The protocol was developed as a collaborative project between the departments of urology and interventional radiology.

Although both retrograde ureteral stenting and percutaneous nephrostomy (PCN) tube insertion are considered acceptable first-line options for intervention and there are no data to suggest either method has superior outcomes, the protocol takes into account some limited evidence that PCN tube placement could be a better initial approach in septic patients because it potentially requires less manipulation, fails less often, and can be performed with less need for general anesthesia, said Elisabeth M. Sebesta, MD, urology resident at Columbia, working with Ojas Shah, MD, and colleagues.

To evaluate effects of the protocol on patient outcomes, the investigators conducted a retrospective analysis of data collected from patients. Please see PYELONEPHRITIS, on page 7.

“Ours pragmatic trial is important because it demonstrates the feasibility of avoiding opioids in this common clinical scenario and can lend support to future explanatory trials.”

KEVAN M. STERNBERG, MD

Fully discharged without opioids, and we encourage other urologists to join in the non-opioid revolution,” said Dr. Sobel, urology resident at the University of Vermont.

“Our pragmatic trial is important because it demonstrates the feasibility of avoiding opioids in this common clinical scenario and can lend support to future explanatory trials,” senior author Kevan M. Sternberg, MD, told Urology Times.

“In addition, the knowledge that most patients can avoid opioids after ureteroscopy and stent placement combined with the known risks of opioids, even in small amounts and for short periods of time, may make a formal RCT difficult to justify,” said Dr. Sternberg, associate professor of surgery at the University of Vermont.

The study included 206 patients identified by retrospective chart review who underwent URS with stent placement between November 2016 and March 2018. Eligibility for discharge without an opioid prescription was determined using an algorithm that excluded anyone with a history of URS requiring opioid pain medications, current opioid tolerance, or renal impairment (chronic kidney disease [CKD] stage ≥II). Of the 206 patients, 151 patients (73%) were discharged without opioids.

Table: OPIOID USE AND OUTPATIENT RESOURCE UTILIZATION POST-URS

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<tr>
<th></th>
<th>Patients receiving non-opioids or no pain medication</th>
<th>Patients receiving opioids</th>
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Source: David W. Sobel, MD, and Kevan M. Sternberg, MD

How pathway works

All patients at the University of Vermont Medical Center undergoing URS with stent placement combined with the known risks of opioids, even in small amounts and for short periods of time, may make a formal RCT difficult to justify,” said Dr. Sternberg, associate professor of surgery at the University of Vermont.

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ELISABETH M. SEBESTA, MD

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Super-mini PCNL confers higher stone-free rate vs. RIRS

Retrograde technique shows lower hemoglobin drop, less post-op pain

John Schieszer
UT Correspondent

SAN FRANCISCO—Super-mini percutaneous (SMP) nephrolithotomy may have some advantages over retrograde intrarenal surgery (RIRS) when treating 1- to 2-cm lower pole renal calculi, according to a comparative study.

At the 2018 AUA annual meeting in San Francisco, Chinese investigators reported that SMP appears to provide an overall significantly higher stone-free rate and lower auxiliary rate compared to RIRS in the treatment of 1- to 2-cm lower pole renal calculi.

The authors found no significant differences in surgical time and hospital stay between the two groups. However, the study demonstrated RIRS was advantageous in terms of hemoglobin drop rates and postoperative pain scores.

“We found that for the stones located in the lower pole that are 1 to 2 centimeters, both SMP and RIRS are safe and effective treatments. SMP will have a higher clearance,” said Yang Liu, MD, who is with the First Affiliated Hospital of Guangzhou Medical University, China.

Dr. Liu, who presented the findings at the meeting, said both percutaneous nephrolithotomy and RIRS are currently recommended for the treatment of 1- to 2-cm lower pole renal calculi. However, he said the optimal treatment option has not been thoroughly evaluated. He and his colleagues conducted a multinational, multicenter prospective randomized comparison of SMP and RIRS for the treatment of 1- to 2-cm lower pole renal calculi and examined the safety and efficacy of the two procedures (NCT02519634).

The authors enrolled 153 patients at nine Asian centers and one European center. All the participants were treated between August 2015 and March 2017. The primary outcomes were one-session stone-free rate and stone-free rate at 1-month postoperatively. For this investigation, the secondary outcomes analyses included blood loss, operating times, postoperative pain scores, auxiliary procedures, complications, and hospital stay.

The authors found that the stone-free rate was significantly higher in the SMP group compared to the RIRS group. The one-session stone-free rate was 94.8% in the SMP group and 75.0% in the RIRS group (p=0.001). The overall stone-free rate was 97.4% 1-month postoperatively in the SMP group and 84.2% in the RIRS group (p=0.005).

“We have been studying this technology for more than 5 years. This is the third generation of this technology,” Dr. Liu said in an interview with Urology Times. “We want to recommend this new technology to urologists because it would be highly efficient and safe.”

The auxiliary rate was found to be lower in the SMP group (p=0.001), but RIRS was found to be superior in terms of lower hemoglobin drop (p<0.001). In addition, RIRS was found to result in better postoperative pain scores at 6 hours (p=0.001), 24 hours (p=0.004), and 48 hours (p=0.043). The study also showed that the complications rates between the two groups were similar.

“We think this technology is something that will be very popular in the future. It is promising,” Dr. Liu said. UT

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<td>Overall stone-free rate</td>
<td>97.4%</td>
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Source: Yang Liu, MD

STENT, on page 9

Tolterodine pretreatment fails to improve stent symptoms

14-day regimen not beneficial, validated questionnaire results indicate

John Schieszer
UT Correspondent

SAN FRANCISCO—Pretreatment for 14 days with tolterodine (Detrol) and tamsulosin (Flomax) did not appear to relieve ureteral stent symptoms better than tamsulosin alone as measured by the validated Ureteral Stent Symptom Questionnaire (USSQ), say the authors of a recent study.

Stent symptoms are a significant problem in patients undergoing endoscopic stone surgery, but the optimal medical therapy to address this issue has yet to be defined, according to the authors.

The researchers were disappointed with their findings and report that this further validates the principle that this class of medications has a limited clinical impact on patients with ureteral stent symptoms. They concluded that other alternatives should be pursued.

“We are potentially exposing patients to some degree of side effects and costs,” said study investigator John Roger Bell, MD, assistant professor of urology at the University of Kentucky, Lexington.

The authors previously looked at the use of tolterodine to relieve ureteral stent symptoms in a randomized controlled trial, but the findings were disappointing and showed no significant benefit (J Urol 2016; 195:385-90). For this current investigation, which was presented at the 2018 AUA annual meeting in San Francisco, the authors theorized that pretreatment with tolterodine could improve outcomes by allowing toltero-
RCC combo therapy significantly improves PFS

Wayne Kuznar
UT Correspondent

**MUNICH**—A combination of the immune checkpoint blockeravelumab (Bavencio) plus the tyrosine kinase inhibitor axitinib (Inlyta) significantly improved progression-free survival (PFS) compared with sunitinib (Sutent) in previously untreated patients with advanced renal cell carcinoma (RCC) in a pivotal phase III study.

The improvement in median PFS was observed in patients regardless of PD-L1 status and in all prognostic groups, said Robert J. Motzer, MD, lead investigator of the JAVELIN Renal 101 study. The findings were presented at the 2018 European Society for Medical Oncology annual congress in Munich.

“The efficacy benefit and the favorable safety profile supportavelumab plus axitinib as a new first-line standard of care for advanced RCC. This is the first phase III trial of a checkpoint inhibitor combined with a tyrosine kinase inhibitor, not only in advanced RCC but across all malignancies,” said Dr. Motzer, medical oncologist and Jack and Dorothy Byrne Chair in Clinical Oncology at Memorial Sloan Kettering Cancer Center, New York.

The 39% relative improvement ($p<.0001$) per independent review committee (IRC) in PFS favoring avelumab plus axitinib over sunitinib in the PD-L1-positive group was “robust,” Dr. Motzer said. In the overall study cohort, median PFS per IRC in patients irrespective of PD-L1 expression was improved by 31% in the combination arm relative to the sunitinib arm ($p=.0001$).

JAVELIN Renal 101 was an open-label randomized trial. Key eligibility criteria included treatment-naïve advanced RCC with a clear cell component, one or more measurable lesions as defined by RECIST v1.1, tumor tissue available for PD-L1 staining, and an ECOG performance status of 0 or 1.

“There’s a strong rationale for combining avelumab plus axitinib. In addition to antiangiogenic effects, vascular endothelial growth factor receptor (VEGFR) blockade by axitinib has immunomodulatory effects. Simultaneous inhibition of PD-1/PD-L1 axis and VEGFR/VEGF had synergistic antitumor effects in preclinical models,” Dr. Motzer said.

The study randomized 866 patients, including 560 (65%) with PD-L1-positive tumors. The treatment arms were balanced with regard to baseline characteristics, and the PD-L1-positive and overall population were similar by the same characteristics. About two-thirds of the study cohort in each arm were intermediate/poor risk by IMDC prognostic risk and MSKCC prognostic risk. About 60% of the patients were enrolled in the United States.

A total of 442 patients were randomized to avelumab, 10 mg/kg intravenously every 2 weeks, in combination with axitinib, 5 mg orally twice daily. The comparator group of 444 patients was randomized to sunitinib, 50 mg orally once a day on a schedule of 4 weeks on followed by 2 weeks off.

The two primary endpoints were PFS by RECIST v1.1 per IRC in patients with PD-L1-positive tumors and overall survival (OS) in the PD-L1-positive group.

**13.8 months median survival**

After a median follow-up of 9.9 months in the combination arm and 8.4 months in the sunitinib arm, median PFS was 13.8 versus 7.2 months, Please see **RCC**, on page 10

**The efficacy benefit and the favorable safety profile support avelumab plus axitinib as a new first-line standard of care for advanced RCC.”**

ROBERT J. MOTZER, MD

**STENT**

continued from page 8

dine to attain a steady state concentration prior to the insertion of the ureteral stent.

They conducted a double-blind, placebo-controlled trial in which patients were randomized to undergoing ureteroscopy and receiving tamsulosin plus tolterodine (combination therapy) or to tamsulosin plus placebo (monotherapy). The medical therapies were given 14 days prior to stent insertion and continued for 7 days postoperatively.

The study included patients undergoing uncomplicated ureteroscopy for urinary stone disease, and individuals were excluded if they were unable to take anticholinergics. In addition, patients were excluded if they already were taking anticholinergic medications for lower urinary tract symptoms.

The primary outcome for the study was the USSQ score. The USSQ was assessed at time of enrollment, day of surgery, day after surgery, last day of medication or day of stent removal, and day after stent removal. The authors added domain scores for each patient and compared the two groups.

“Until we come up with a more targeted or better therapy, this is what people are using,” said Dr. Bell. “Yet, it may be providing little benefit.”

The authors were hoping to enroll 100 patients and have data on at least 75. However, to date only 74 patients were enrolled and 43 were included in the final analysis. Dr. Bell said he does not expect that the trends would have changed significantly if the cohort had been larger.

**No difference between groups**

“When evaluating these patients’ symptoms based on the USSQ questionnaire, we found no difference between the groups,” Dr. Bell said in an interview with *Urology Times*. “Currently, we have the trial on hold.”

Unfortunately, there are no proven effective medical therapies to provide patients who are undergoing endoscopic stone surgery, he said. The current approach is simply a matter of tailoring treatment to each patient based on their individual symptoms.

“We need to keep evaluating why patients have stent symptoms. We don’t really have a good answer for that yet,” said Dr. Bell.

Dr. Bell is a consultant for Boston Scientific and a speaker for Cook Medical.

ROBERT J. MOTZER, MD
Bone marker data support mCRPC combination Tx

Wayne Kuznar
UT Correspondent

MUNICH—Markers of bone metabolism improved in men with metastatic castration-refractory prostate cancer (mCRPC) who received radium-223 (Xofio) in addition to enzalutamide (XTANDI) compared with enzalutamide alone.

In a phase II trial, a suggestion of improved PSA progression-free survival (PFS) was also observed with the combination, reported Benjamin L. Maughan, MD, PharmD, at the 2018 European Society for Medical Oncology annual congress in Munich.

The data provide a rationale for combining the agents in men with progressive mCRPC, said Dr. Maughan, assistant professor of medical oncology at Huntsman Cancer Institute, University of Utah, Salt Lake City.

Radium-223 dichloride is a radioisotope that emits cytotoxic alpha particles with a high affinity for the bone matrix. It was approved by the FDA in 2013 for the treatment of metastatic prostate cancer to bone in the absence of visceral metastases on the basis of the phase III ALSYMPCA trial, which showed an overall survival (OS) benefit with the use of the radioisotope.

Data from the phase II study presented here build upon the safety data from the same trial presented earlier, at the 2018 American Society of Clinical Oncology annual meeting in Chicago.

“We showed that the combination of enzalutamide plus radium was no more toxic than you would expect with enzalutamide alone in terms of noncytopenia toxicities and cytopenia compared with radium-223 as seen in the ALSYMPCA trial. That’s what we benchmarked it against,” Dr. Maughan told Urology Times. “We also noted that there was no increased fractures with radium-223; in fact, there were no fractures in either arm with up to 12.1 months of follow-up in this study.”

As part of the study, levels of bone formation markers were measured in sera collected at baseline and at the end of treatment or until disease progression or unacceptable toxicities. A total of 49 men were recruited for the study; 35 received radium-223 at a standard dosage (six treatments of 55 kBq/kg IV every 4 weeks) plus enzalutamide, 160 mg/day, and 14 received enzalutamide alone.

Patients included had histologically documented castration-resistant adenocarcinoma of the prostate and life expectancy ≥6 months. They had metastatic disease as evidenced by both lymphadenopathy and bony metastases or just bony metastases on baseline bone scan and/or computed tomography scan or magnetic resonance imaging of the abdomen and pelvis.

With the exception of one patient in each arm, Please see mCRPC, on page 11

RCC

continued from page 9

respectively (HR=0.61; p<.0001) in the patients with PD-L1-positive tumors.

After a median follow-up of 10.8 months in the combination arm and 8.6 months in the sunitinib arm, median PFS per IRC, a secondary endpoint, in patients irrespective of PD-L1 expression was 13.8 versus 8.4 months (HR=0.69; p=.0001) respectively.

Investigator assessment of PFS was a secondary endpoint.

“The findings were consistent with those of the IRC in showing a strong benefit for avelumab plus axitinib in both the PD-L1-positive group and in the overall population,” Dr. Motzer said. The HR was 0.51 (p<.0001) in favor of the combination in the PD-L1-positive group.

By IRC review, the confirmed objective response rates were 55.2% in the avelumab/axitinib arm and 25.5% in the sunitinib arm.

“The complete response rate of 4% [with combination therapy] is anticipated to increase as the follow-up of responders becomes longer, since 73% of objective responders continue on study with an ongoing response,” Dr. Motzer said. In 149 responding patients who were PD-L1-positive, the median time to response was 1.6 months.

“The OS data at this point are immature and the interpretation is inconclusive,” he said. Median OS has not been reached in either treatment arm (overall population), with a median follow-up of 12 months.

The hazard ratio for PFS favored the combination in all subgroups examined, including the PD-L1-negative subgroup and across each category of risk per IMDC and MSKCC.

About 50% in either arm had a grade 3 adverse event. The proportion with a grade 4 adverse event was 4% in the combination arm and 7% in the sunitinib arm. Hepatic toxicity was low in both groups. The proportion with adverse events leading to discontinuation of study drug was 4% in the combination arm and 8% in the sunitinib arm. Immune-related adverse events occurred in 38% of the combination arm (8% were grade 3), including 21% with hypothyroidism.

Although the tolerability of the combination is impressive, to know whether it’s better than sequencing therapies must await the OS and quality-of-life data, said invited discussant Victor Grünwald, MD, PhD, professor for interdisciplinary genitourinary oncology at West German Cancer Center, Essen.

“I do believe that there is a niche in favorable-risk patients for this specific combination, and it could be a standard of care for patients with favorable risk,” he said.

Pfizer sponsored the study. Dr. Motzer has a financial interest in Pfizer, Bristol-Myers Squibb, Novartis, Eisai, Exelixis, Genentech/Roche, and Merck. Several of his co-authors have disclosures related to one or more pharmaceutical companies.
Gleason score associated with ADT efficacy

Patients with Gleason 9-10 PCa derive smaller survival benefit vs. Gleason 8

John Schieszer / UT Correspondent

Men with Gleason score 9-10 prostate cancer may derive a smaller survival benefit from androgen deprivation therapy (ADT) compared with those with Gleason 8 disease.

However, in individuals with Gleason 8 prostate cancer, ADT is associated with an approximately 20% decrease in all-cause mortality. These are among the findings of a new analysis presented at the 2018 American Society for Radiation Oncology annual meeting in San Antonio and published in *European Urology* (2019; 75:35–41).

The authors conducted a retrospective study of more than 20,000 men from the National Cancer Database (NCDB). All individuals had localized or locally advanced Gleason 8-10 prostate cancer and received external beam radiation therapy (EBRT) between 2004 and 2012. In this cohort, 78% of men with Gleason 8 disease (9,509 of 2,160) and 87% of men with Gleason 9-10 disease (6,908 of 7,979) received ADT. The authors aimed to examine the association between ADT and overall survival for those with a Gleason score of 8 (Grade Group 4) versus those with a Gleason score of 9-10 (Grade Group 5).

Researchers from Harvard Medical School and the Harvard Radiation Oncology Program in Boston, including David Yang, MD, and Paul L. Nguyen, MD, and colleagues conducted a retrospective study of more than 20,000 men from the National Cancer Database (NCDB). All individuals had localized or locally advanced Gleason 8-10 prostate cancer and received external beam radiation therapy (EBRT) between 2004 and 2012. In this cohort, 78% of men with Gleason 8 disease (9,509 of 2,160) and 87% of men with Gleason 9-10 disease (6,908 of 7,979) received ADT.

The authors aimed to examine the association between ADT and overall survival for those with a Gleason score of 8 (Grade Group 4) versus those with a Gleason score of 9-10 (Grade Group 5).

“The authors aimed to examine the association between ADT and overall survival for those with a Gleason score of 8 (Grade Group 4) versus those with a Gleason score of 9-10 (Grade Group 5).”

Neil Desai, MD

After conducting a multivariable analysis, the authors found that ADT was associated with a significant improvement in overall survival in patients with a Gleason score of 8 (adjusted hazard ratio [HR], 0.78), but not for those with a Gleason score of 9-10 (adjusted HR, 0.96). In addition, a higher Gleason score (8, 9, or 10) was associated with a decreasing benefit from ADT. However, the authors cautioned that the study is limited by the relatively short follow-up of a median of 4.0 years.

**Intensification of therapy recommended for Gleason 9-10**

Based on the results of the study, intensification of therapy should be considered for prostate cancer patients with a Gleason score of 9-10, the authors concluded. They also encourage enrollment of such patients in clinical trials or potentially adding novel antiandrogens or docetaxel (Taxotere). Both of these therapies have been shown to be effective in castration-resistant and castration-sensitive settings, according to the authors.

Neil Desai, MD, assistant professor of radiation oncology at the Harold C. Simmons Comprehensive Cancer Center at UT Southwestern Medical Center in Dallas, said this is a provocative study that contradicts the commonly held belief that ADT improves outcomes in high-grade prostate cancer, irrespective of specific grade.

In an interview, Dr. Desai said that these findings also speak to the long-held concern that very high-grade Gleason 9-10 patients on the verge of complete de-differentiation may no longer be androgen dependent for the prostate cancer progression, diminishing, if not eliminating, the benefit of ADT. However, multiple randomized controlled trials would be required to change clinical practice, he said.

Dr. Desai, who was not involved with the research, also cautioned about the caveats of a population database analysis like this one.

“This study should provoke post-hoc analysis of completed trials of high-grade prostate cancer undergoing ADT plus radiation therapy to ascertain whether this lack of benefit for Gleason 9-10 can be validated, or whether it is just a statistical anomaly of NCDB due to unaccounted-for confounders, as has been seen in more cases than not with NCDB analyses.”

**MCRPC**

*continued from page 10*

All patients were treated with bone-modifying agents such as zoledronic acid for the duration of the study.

**Bone markers improved**

The ratio of N-telopeptide in the radium-223 plus enzalutamide group relative to the enzalutamide alone arm, the primary objective, was 0.61 (p<.001). Other bone metabolism markers were also significantly improved in the combination arm, including bone-specific alkaline phosphatase (ratio: 0.38; p<.001) and procollagen intact N-terminus (ratio: 0.52; p<.001). The level of C-telopeptide was also lower in the combination arm versus enzalutamide alone, but the difference narrowly missed significance (ratio: 0.61; p=.06).

The change in morphine use from baseline was similar in each group. Improvement in bone metabolism markers was shown in a prior SWOG trial (PMID 24565955) to correlate with OS, Dr. Maughan noted.

PSA PFS at 1 year was longer in the combination arm (HR=0.62; p=.27), though it was also not statistically significant. No difference in OS emerged at 1 year.

“Bone markers have been associated with OS, specifically with radium therapy and other bone-directed therapies,” said Dr. Maughan. “OS data are not mature yet. We didn’t necessarily expect it to be. First, this was a very small study so it would be difficult to demonstrate a difference in OS but also it’s a relatively short follow-up” for this specific patient population.

The data suggest potential additive efficacy between radium and enzalutamide that account for the PSA PFS difference between the two arms, he added.

These data gathered from this phase II study will be validated by an ongoing phase III study comparing radium-223 plus enzalutamide with enzalutamide alone (NCT02194842).

Bayer provided funding for the study.
Indication
XTANDI (enzalutamide) is indicated for the treatment of patients with castration-resistant prostate cancer (CRPC).

Important Safety Information

Warnings and Precautions

Seizure occurred in 0.4% of patients receiving XTANDI in clinical studies. In a study of patients with predisposing factors for seizure, 2.2% of XTANDI-treated patients experienced a seizure. Patients in the study had one or more of the following pre-disposing factors: use of medications that may lower the seizure threshold; history of traumatic brain or head injury, cerebrovascular accident or transient ischemic attack, Alzheimer’s disease, meningioma, or leptomeningeal disease from prostate cancer, unexplained loss of consciousness within the last 12 months, history of seizure, presence of a space occupying lesion of the brain, history of arteriovenous malformation, or history of brain infection. It is unknown whether anti-epileptic medications will prevent seizures with XTANDI. Advise patients of the risk of developing a seizure while taking XTANDI regardless of whether anti-epileptic medications will prevent seizures with XTANDI. Pres is a neurological disorder which can present with rapidly evolving symptoms including seizure, headache, lethargy, confusion, blindness, and other visual and neurological disturbances, with or without associated hypertension. A diagnosis of PRES requires confirmation by brain imaging, preferably MRI. Discontinue XTANDI in patients who develop a seizure during treatment.

Posterior Reversible Encephalopathy Syndrome (PRES)
In post approval use, there have been reports of PRES in patients receiving XTANDI. Pres is a neurological disorder which can present with rapidly evolving symptoms including seizure, headache, lethargy, confusion, blindness, and other visual and neurological disturbances, with or without associated hypertension. A diagnosis of PRES requires confirmation by brain imaging, preferably MRI. Discontinue XTANDI in patients who develop PRES.

Hypersensitivity reactions, including edema of the face (0.5%), tongue (0.1%), or lip (0.1%) have been observed with XTANDI in clinical trials. Pharyngeal edema has been reported in post-marketing cases.

Falls and Fractures
In the placebo-controlled clinical studies, a diagnosis of ischemic heart disease. Optimize management of cardiovascular risk factors, such as hypertension, diabetes, or dyslipidemia. Discontinue XTANDI for Grade 3-4 ischemic heart disease. Falls and fractures occurred in 10% of patients treated with XTANDI compared to 4% of patients treated with placebo. Fractures occurred in 8% of patients treated with XTANDI and in 3% of patients treated with placebo. Evaluate patients for fracture and fall risk. Monitor and manage patients at risk for fractures according to established treatment guidelines and consider use of bone-targeted agents.

Embryo-Fetal Toxicity
Safety and efficacy of XTANDI have not been established in females. XTANDI can cause fetal harm and loss of pregnancy when administered to a pregnant female. Advise males with female partners of reproductive potential to use effective contraception during treatment with XTANDI. XTANDI should not be handled by females who are or may become pregnant.

Adverse Reactions
The most common adverse reactions (≥ 10%) that occurred more frequently (≥ 2% over placebo) in the XTANDI patients from the randomized placebo-controlled trials were asthenia/fatigue, decreased appetite, hot flush, arthralgia, dizziness/vertigo, hypertension, headache and weight decreased. In the bicalutamide-controlled study, the most common adverse reactions (≥ 10%) reported in XTANDI patients

* PSA level ≥ 2 ng/mL with at least 2 consecutive rises despite castrate testosterone levels (≤ 50 ng/dL).2-3

METS? NO METS? START XTANDI.
Regardless of metastatic status, XTANDI offers your patients with castration-resistant prostate cancer (CRPC) the confidence of proven efficacy when PSA is rising* during LHRH therapy.11
XTANDI significantly prolonged metastasis-free survival in patients with nonmetastatic CRPC and significantly extended overall survival and radiographic progression-free survival in patients with metastatic CRPC.

**Nonmetastatic CRPC:** Median metastasis-free survival was 3 years (36.6 months [95% CI, 33.1-NR]) with XTANDI + LHRH therapy vs 14.7 months (95% CI, 14.2-15.0) with placebo + LHRH therapy (HR = 0.29 [95% CI, 0.24-0.35]; P < 0.0001).1

* As seen in the PROSPER trial: a multinational, randomized, double-blind phase 3 trial that enrolled 1401 patients with nonmetastatic CRPC who progressed on LHRH therapy. Eligibility criteria included PSA doubling time ≤ 10 months and no prior chemotherapy.1,4

**Metastatic CRPC:** 23% reduction in the risk of death with XTANDI + LHRH therapy vs placebo + LHRH therapy (HR = 0.77 [95% CI, 0.67-0.88]) and 83% reduction in the risk of radiographic progression or death vs placebo + LHRH therapy (HR = 0.17 [95% CI, 0.14-0.21]; P < 0.0001).1

* As seen in the PREVAIL trial: a multinational, randomized, double-blind phase 3 trial that enrolled 1717 patients with metastatic CRPC who progressed on LHRH therapy. Eligibility criteria included no prior chemotherapy.1

Drug Interactions

**Effect of Other Drugs on XTANDI**

Avoid strong CYP3A4 inhibitors, as they can increase the plasma exposure to XTANDI. If co-administration is necessary, reduce the dose of XTANDI. Avoid strong CYP3A4 inducers as they can decrease the plasma exposure to XTANDI. If co-administration is necessary, increase the dose of XTANDI.

**Effect of XTANDI on Other Drugs**

Avoid CYP3A4, CYP2C9, and CYP2C19 substrates with a narrow therapeutic index, as XTANDI may decrease the plasma exposures of these drugs. If XTANDI is co-administered with warfarin (CYP2C9 substrate), conduct additional INR monitoring.

Please see adjacent pages for Brief Summary of Full Prescribing Information.

References:
XTANDI® (enzalutamide) capsules for oral use

Initial U.S. Approval: 2012

BRIEF SUMMARY OF PRESCRIBING INFORMATION

The following is a brief summary. Please see the package insert for full prescribing information.

INDICATIONS AND USAGE

XTANDI is an androgen receptor inhibitor indicated for the treatment of patients with castration-resistant prostate cancer.

CONTRAINDICATIONS

None.

WARNINGS AND PRECAUTIONS

Seizure

Seizure occurred in 0.4% of patients receiving XTANDI in clinical studies. In these trials, patients with predisposing factors for seizure were generally excluded. Seizures occurred from 13 to 604 days after initiation of XTANDI. Patients experiencing seizure were permanently discontinued from therapy and all seizure events resolved.

In a single-arm trial designed to assess the risk of seizure in patients with pre-disposing factors for seizure, 8 of 366 (2.2%) XTANDI-treated patients experienced a seizure. Three of the 8 patients experienced a second seizure during continued treatment with XTANDI after their first seizure resolved. It is unknown whether anti-epileptic medications will prevent seizures with XTANDI. Patients in the study had one or more of the following pre-disposing factors: the use of medications that may lower the seizure threshold (~ 5%), history of traumatic brain or head injury (~ 28%), history of cerebrovascular accident or transient ischemic attack (~ 24%), and Alzheimer’s disease, meningioma, or leptomeningeal disease from prostate cancer, unexplained loss of consciousness within the last 12 months, past history of seizure, presence of a space occupying lesion of the brain, history of arteriovenous malformation, or history of brain infection (all < 5%). Approximately 17% of patients had more than one risk factor.

Advise patients of the risk of developing a seizure while receiving XTANDI and of engaging in any activity where sudden loss of consciousness could cause serious harm to themselves or others.

Permanently discontinue XTANDI in patients who develop a seizure during treatment.

Posterior Reversible Encephalopathy Syndrome (PRES)

There have been reports of posterior reversible encephalopathy syndrome (PRES) in patients receiving XTANDI. PRES is a neurological disorder which can present with rapidly evolving symptoms including seizure, headache, lethargy, confusion, blindness, and other visual and neurological disturbances, with or without associated hypertension. A diagnosis of PRES requires confirmation by brain imaging, preferably magnetic resonance imaging (MRI). Discontinue XTANDI in patients who develop PRES.

Hypersensitivity

Hypersensitivity reactions, including edema of the face (0.5%), tongue (0.1%), or lip (0.1%) have been observed with enzalutamide in four randomized clinical trials. Pharyngeal edema has been reported in post-marketing cases. Advise patients who experience any symptoms of hypersensitivity to temporarily discontinue XTANDI and promptly seek medical care. Permanently discontinue XTANDI for serious hypersensitivity reactions.

Ischemic Heart Disease

In the combined data of three randomized, placebo-controlled clinical studies, ischemic heart disease occurred more commonly in patients on the XTANDI arm compared to patients on the placebo arm (2.7% vs 1.2%). Grade 3-4 ischemic events occurred in 1.2% of patients in the XTANDI arm compared to 0.5% in the placebo arm. Ischemic events led to death in 0.4% of patients in the XTANDI arm compared to 0.1% in the placebo arm.

Monitor for signs and symptoms of ischemic heart disease. Optimize cardiovascular risk factors, such as hypertension, diabetes, or dyslipidemia. Discontinue XTANDI for Grade 3-4 ischemic heart disease.

Falls and Fractures

Falls and fractures occurred in patients receiving XTANDI. Evaluate patients for fracture and fall risk. Monitor and manage patients at risk for fractures according to established treatment guidelines and consider use of bone-targeted agents.

In the combined data of three randomized, placebo-controlled clinical studies, falls occurred in 10% of patients treated with XTANDI compared to 4% of patients treated with placebo. Falls were not associated with loss of consciousness or seizure. Fractures occurred in 8% of patients treated with XTANDI and in 3% of patients treated with placebo. Grade 3-4 fractures occurred in 2% of patients treated with XTANDI and in < 1% of patients treated with placebo. The median time to onset of fracture was 337 days (range: 2 to 996 days) for patients treated with XTANDI. Routine bone density assessment and treatment of osteoporosis with bone-targeted agents were not performed in the studies.

Embryo-Fetal Toxicity

The safety and efficacy of XTANDI have not been established in females. Based on animal reproductive studies and mechanism of action, XTANDI can cause fetal harm and loss of pregnancy when administered to a pregnant female. Advise males with female partners of reproductive potential to use effective contraception during treatment with XTANDI.

ADVERSE REACTIONS

Table 1. Adverse Reactions in AFFIRM

<table>
<thead>
<tr>
<th>Category</th>
<th>XTANDI N = 800</th>
<th>Placebo N = 399</th>
</tr>
</thead>
<tbody>
<tr>
<td>N (%)</td>
<td>Grade 1-2 (%)</td>
<td>Grade 3-4 (%)</td>
</tr>
<tr>
<td>N (%)</td>
<td>Grade 1-2 (%)</td>
<td>Grade 3-4 (%)</td>
</tr>
<tr>
<td>N (%)</td>
<td>Grade 1-2 (%)</td>
<td>Grade 3-4 (%)</td>
</tr>
<tr>
<td>N (%)</td>
<td>Grade 1-2 (%)</td>
<td>Grade 3-4 (%)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>General Disorders</th>
<th>XTANDI</th>
<th>Placebo</th>
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</thead>
<tbody>
<tr>
<td>Asthenic Conditions</td>
<td>51</td>
<td>9.0</td>
</tr>
<tr>
<td>Peripheral Edema</td>
<td>15</td>
<td>1.0</td>
</tr>
<tr>
<td>Musculoskeletal and Connective Tissue Disorders</td>
<td>12</td>
<td>2.8</td>
</tr>
<tr>
<td>Back Pain</td>
<td>26</td>
<td>5.3</td>
</tr>
<tr>
<td>Arthralgia</td>
<td>21</td>
<td>2.5</td>
</tr>
<tr>
<td>Muscular Weakness</td>
<td>9.8</td>
<td>1.5</td>
</tr>
<tr>
<td>Weakness</td>
<td>9.8</td>
<td>1.5</td>
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<tr>
<td>Edema</td>
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<td>0.3</td>
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<td>Gastrointestinal Disorders</td>
<td>22</td>
<td>1.1</td>
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<tr>
<td>Diarrhea</td>
<td>22</td>
<td>1.1</td>
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<tr>
<td>Vascular Disorders</td>
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<td>0.0</td>
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<tr>
<td>Hot Flash</td>
<td>6.4</td>
<td>2.1</td>
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<tr>
<td>Hypertension</td>
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<tr>
<td>Hypothalamic Impairment Disorders</td>
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<tr>
<td>Hypotension</td>
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<td>0.3</td>
</tr>
<tr>
<td>Infections and Infestations</td>
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<td>0.0</td>
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<tr>
<td>Upper Respiratory Tract Infection</td>
<td>11</td>
<td>0.0</td>
</tr>
<tr>
<td>Lower Respiratory Tract Infection</td>
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<td>0.0</td>
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<tr>
<td>Lower Respiratory Tract and Lung Infection</td>
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<td>2.4</td>
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<td>Internal Obstructive Complications</td>
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<td>0.3</td>
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<tr>
<td>Skin and Subcutaneous Tissue Disorders</td>
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<td>0.3</td>
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<tr>
<td>Pruritus</td>
<td>3.0</td>
<td>0.3</td>
</tr>
<tr>
<td>Respiratory Disorders</td>
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<td>0.3</td>
</tr>
<tr>
<td>Epistaxis</td>
<td>3.3</td>
<td>0.1</td>
</tr>
</tbody>
</table>

1. CTCAE v4
2. Includes asthma and fatigue.
3. Includes dizziness and vertigo.
4. Includes amnesia, memory impairment, cognitive disorder, and disturbance in attention.
5. Includes nephrogenic, upper respiratory tract infection, sinusitis, rhinitis, pharyngitis, and laryngitis.
6. Includes pneumonia, lower respiratory tract infection, bronchitis, and lung infection.

The above table is a summary of adverse reactions reported in AFFIRM that occurred in ≥ 2% higher frequency in the XTANDI arm compared to the placebo arm.
PREVAIL (NCT01212991): XTANDI versus Placebo in Chemotherapy-naive Metastatic CRPC

PREVAIL enrolled 1717 patients with metastatic CRPC who had not received prior cytotoxic chemotherapy, of whom 1715 received at least one dose of study drug. The median duration of treatment was 17.5 months with XTANDI and 4.6 months with placebo. Grade 3-4 adverse reactions were reported in 44% of XTANDI-treated patients and 37% of placebo-treated patients. Discontinuations due to adverse events were reported for 6% of XTANDI-treated patients and 6% of placebo-treated patients. The most common adverse reaction leading to treatment discontinuation was fatigue/asthenia, which occurred in 1% of patients on each treatment arm. Table 2 includes adverse reactions reported in PREVAIL that occurred at a ≥ 2% higher frequency in the XTANDI arm compared to the placebo arm.

Table 2. Adverse Reactions in PREVAIL

<table>
<thead>
<tr>
<th>Reaction</th>
<th>XTANDI N = 871</th>
<th>Placebo N = 844</th>
</tr>
</thead>
<tbody>
<tr>
<td>Grade 1-4 (%)</td>
<td>Grade 1-4 (%)</td>
<td>Grade 1-4 (%)</td>
</tr>
</tbody>
</table>

- **General Disorders**
  - Asthenic Conditions: 34.4
  - Peripheral Edema: 11.2

- **Musculoskeletal and Connective Tissue Disorders**
  - Back Pain: 22.9
  - Arthritis: 11.6

- **Gastrointestinal Disorders**
  - Constipation: 17.3
  - Diarrhea: 13.7

- **Vascular Disorders**
  - Hot Flush: 38.4
  - Hypertension: 21.4

- **Nervous System Disorders**
  - Dizziness: 11.3
  - Headache: 11.2

- **Musculoskeletal and Connective Tissue Disorders**
  - Arthritis: 11.6

- **Respiratory Disorders**
  - Dyspnea: 11.0

- **Infections and Infestations**
  - Upper Respiratory Tract Infection: 16.0

- **Psychiatric Disorders**
  - Insomnia: 8.2

- **Renal and Urinary Disorders**
  - Hematuria: 8.8

- **Injury, Poisoning and Procedural Complications**
  - Fracture: 8.8

- **Metabolism and Nutrition Disorders**
  - Decreased Appetite: 19.3

- **Gastrointestinal Disorders**
  - Constipation: 13.7

- **Metabolism and Nutrition Disorders**
  - Malnutrition: 3.4

CITCAE-4
1. Includes anemia and fatigue.
2. Includes dizziness and vertigo.
3. Includes nausea, memory impairment, cognitive disorder, and disturbance in attention.
4. Includes dizziness, emotional dizziness, and dyspnea at rest.
5. Includes nasopharyngitis, upper respiratory tract infection, sinusitis, rhinitis, pharyngitis, and laryngitis.
6. Includes persistent lower respiratory tract infection, bronchitis, and lung infection.

TERRAIN (NCT02889111): XTANDI versus Bicalutamide in Chemotherapy-naive Metastatic CRPC

TERRAIN enrolled 375 patients with metastatic CRPC who had not received prior cytotoxic chemotherapy, of whom 372 received at least one dose of study drug. The median duration of treatment was 11.6 months with XTANDI and 8.8 months with bicalutamide. Discontinuations with an adverse event as the primary reason were reported for 7.6% of XTANDI-treated patients and 6.3% of bicalutamide-treated patients. The most common adverse reaction leading to treatment discontinuation was back pain and pathological fracture, which occurred in 3.8% of XTANDI-treated patients for each event and in 2.1% and 1.0% of bicalutamide-treated patients, respectively. Table 3 shows overall and common adverse reactions (>10%) in XTANDI-treated patients.

Table 3. Adverse Reactions in TERRAIN

<table>
<thead>
<tr>
<th>Reaction</th>
<th>XTANDI N = 183</th>
<th>Bicalutamide N = 189</th>
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<tbody>
<tr>
<td>Grade 1-4 (%)</td>
<td>Grade 1-4 (%)</td>
<td>Grade 1-4 (%)</td>
</tr>
</tbody>
</table>

- **General Disorders**
  - Asthenic Conditions: 32.6

- **Musculoskeletal and Connective Tissue Disorders**
  - Back Pain: 19.2

- **Vascular Disorders**
  - Hot Flush: 15.0
  - Hypertension: 14.7

- **Gastrointestinal Disorders**
  - Nausea: 14.0
  - Constipation: 13.0
  - Diarrhea: 12.0

- **Infections and Infestations**
  - Upper Respiratory Tract Infection: 12.0

- **Psychiatric Disorders**
  - Anxiety: 2.6

PROSPER (NCT02003924): XTANDI versus Placebo in Non-metastatic CRPC Patients

PROSPER enrolled 1401 patients with non-metastatic CRPC, of whom 1395 received at least one dose of study drug. Patients were randomized 2:1 and received either XTANDI at a dose of 160 mg once daily (N = 930) or placebo (N = 465). The median duration of treatment at the time of analysis was 18.4 months (range: 0.0 to 42 months) with XTANDI, of whom 1715 received at least one dose of study drug. The median duration of treatment at the time of analysis was 5.8 months with placebo. Discontinuations with an adverse event as the primary reason were reported for 9.4% of XTANDI-treated patients and 6.0% of placebo-treated patients. Of these, the most common adverse event leading to treatment discontinuation was fatigue, which occurred in 1.6% of the XTANDI-treated patients compared to none of the placebo-treated patients. Table 4 shows adverse reactions reported in PROSPER that occurred at a ≥ 2% higher frequency in the XTANDI arm than in the placebo arm.

Table 4. Adverse Reactions in PROSPER

<table>
<thead>
<tr>
<th>Reaction</th>
<th>XTANDI N = 930</th>
<th>Placebo N = 465</th>
</tr>
</thead>
<tbody>
<tr>
<td>Grade 1-4 (%)</td>
<td>Grade 1-4 (%)</td>
<td>Grade 1-4 (%)</td>
</tr>
</tbody>
</table>

- **Metabolism and Nutrition Disorders**
  - Decreased Appetite: 9.6

- **Nervous System Disorders**
  - Dizziness: 12.0

- **Gastrointestinal Disorders**
  - Nausea: 11.0

- **Respiratory Disorders**
  - Hot Flush: 13.0

- **Vascular Disorders**
  - Hypertension: 12.4

- **Psychiatric Disorders**
  - Anxiety: 2.8

Laboratory Abnormalities

In the AFFIRM and PREVAIL studies in metastatic CRPC, Grade 1-4 neutropenia occurred in 15% of patients receiving XTANDI (1% Grade 3-4) and in 6% of patients receiving placebo (0.5% Grade 3-4).

Table 5 shows laboratory abnormalities that occurred in ≥ 5% of patients, and more frequently (>2%) in the XTANDI arm compared to placebo in the PROSPER study.

Table 5. Laboratory Abnormalities in PROSPER

<table>
<thead>
<tr>
<th>Reaction</th>
<th>XTANDI N = 930</th>
<th>Placebo N = 465</th>
</tr>
</thead>
<tbody>
<tr>
<td>Grade 1-4 (%)</td>
<td>Grade 1-4 (%)</td>
<td>Grade 1-4 (%)</td>
</tr>
</tbody>
</table>

- **Hematology**
  - Neutropenia: 8.2

- **Chemistry**
  - Hypoalbuminemia: 16.1
  - Hyperglycemia: 7.8

- **Laboratory Abnormalities**
  - Hypomagnesemia: 26.0
Hypertension
In the AFFIRM and PREVAIL studies in metastatic CRPC, hypertension was reported in 11% of patients receiving XTANDI and 4% of patients receiving placebo. Medical history of hypertension was balanced between arms. Hypertension led to study discontinuation in 1% of patients in each arm. In the PROSPER study in non-metastatic CRPC, hypertension was reported in 12% of patients receiving XTANDI and 3% of patients receiving placebo.

Post-Marketing Experience
The following additional adverse reactions have been identified during post-approval use of XTANDI. Because these reactions were reported voluntarily from a population of uncertain size, it is not always possible to reliably estimate the frequency of occurrence and establish a causal relationship to drug exposure.

Body as a Whole: hypersensitivity (edema of the face, tongue, lip, or pharynx)
Gastrointestinal Disorders: vomiting
Neurological Disorders: posterior reversible encephalopathy syndrome (PRES)
Skin: Subcutaneous Tissue Disorders: rash

DRUG INTERACTIONS
Drugs that Inhibit CYP2C8
Co-administration of a strong CYP2C8 inhibitor (gemfibrozil) increased the composite area under the curve (AUC) of enzalutamide plus N-desmethyl enzalutamide by 2.2-fold. Co-administration of XTANDI with strong CYP2C8 inhibitors should be avoided if possible. If co-administration of XTANDI with a strong CYP2C8 inhibitor cannot be avoided, reduce the dose of XTANDI.

Drugs that Induce CYP3A4
Co-administration of rifampin (strong CYP3A4 inducer and moderate CYP2C8 inducer) decreased the composite AUC of enzalutamide plus N-desmethyl enzalutamide by 37%. Co-administration of strong CYP3A4 inducers (e.g., carbamazepine, phenobarbital, phenytoin, rifampin, rifabutin, rifapentine) with XTANDI should be avoided if possible. St John’s wort may decrease enzalutamide exposure and should be avoided. If co-administration of a strong CYP3A4 inducer with XTANDI cannot be avoided, increase the dose of XTANDI.

Effect of XTANDI on Drug Metabolizing Enzymes
Enzalutamide is a strong CYP3A4 inducer and a moderate CYP2C9 and CYP3A419 inducer in humans. At steady-state, XTANDI reduced the plasma exposure to midazolam (CYP3A4 substrate), warfarin (CYP2C9 substrate), and omeprazole (CYP2C19 substrate). Concomitant use of XTANDI with narrow therapeutic index drugs that are metabolized by CYP3A4 (e.g., alfantil, cyclosporine, dexamethasone, erogtanone, fentanyl, pimozide, quinidine, sirolimus and tacrolimus), CYP2C9 (e.g., phenytoin, warfarin) and CYP2C19 (e.g., S-methylenphenotin, clopidogrel) should be avoided, as enzalutamide may decrease the exposure of these concomitantly used drugs. If co-administration with warfarin cannot be avoided, conduct additional INR monitoring.

USE IN SPECIFIC POPULATIONS

Pregnancy
Risk Summary
The safety and efficacy of XTANDI have not been established in females. Based on animal reproductive studies and mechanism of action, XTANDI can cause fetal harm and loss of pregnancy. There are no human data on the use of XTANDI in pregnant females. In animal reproduction studies, oral administration of enzalutamide in pregnant mice during organogenesis caused adverse development effects at doses lower than the maximum recommended human dose (see Data). XTANDI should not be handled by females who are or may become pregnant.

Animal Data
In an embryo-fetal developmental toxicity study in mice, enzalutamide caused developmental toxicity when administered at oral doses of 10 or 30 mg/kg/day throughout the period of organogenesis (gestational days 6-15). Findings included embryofetal lethality (increased post-implantation loss and resorptions) and decreased anogenital distance at ≥ 10 mg/kg/day, and cleft palate and absent patellae at 30 mg/kg/day. Doses of 30 mg/kg/day caused maternal toxicity. The doses tested in mice (1, 10 and 30 mg/kg/day) resulted in systemic exposures (AUC) approximately 0.4, 0.4 and 1.1 times, respectively, the exposures in patients. Enzalutamide did not cause developmental toxicity in rabbits when administered throughout the period of organogenesis (gestational days 6-18) at dose levels up to 10 mg/kg/day (approximately 0.4 times the exposures in patients based on AUC).

In a pharmacokinetic study in pregnant rats with a single oral 30 mg/kg enzalutamide administration on gestation day 14, enzalutamide and/or its metabolites were present in the fetuses at a Cmax that was approximately 0.3 times the concentrations found in maternal plasma and occurred 4 hours after administration.

Lactation
Risk Summary
The safety and efficacy of XTANDI have not been established in females. There is no information available on the presence of XTANDI in human milk, the effects of the drug on the breastfed infant, or the effects of the drug on milk production. Enzalutamide and/or its metabolites were present in milk of lactating rats (see Data).

Data
Following a single oral administration in lactating rats on postnatal day 14, enzalutamide and/or its metabolites were present in milk at a Cmax that was 4 times higher than concentrations in the plasma and occurred 4 hours after administration.

Females and Males of Reproductive Potential

Contraception
Males
Based on findings in animal reproduction studies, advise male patients with female partners of reproductive potential to use effective contraception during treatment and for 3 months after the last dose of XTANDI.

Infertility
Males
Based on animal studies, XTANDI may impair fertility in males of reproductive potential.

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

Geriatric Use

Safety and effectiveness of XTANDI in patients 75 years of age and older have not been established. Other reported clinical experience has not identified differences in responses between the elderly and younger patients, but greater sensitivity of some older individuals cannot be ruled out.

Patients with Renal Impairment
A dedicated renal impairment trial for XTANDI has not been conducted. Based on the population pharmacokinetic analysis using data from clinical trials in patients with metastatic CRPC and healthy volunteers, no significant difference in enzalutamide clearance was observed in patients with pre-existing mild to moderate renal impairment (30 mL/min ≤ creatinine clearance [CrCl] < 60 mL/min) compared to patients with baseline normal renal function (CrCl ≥ 90 mL/min). No initial dosage adjustment is necessary for patients with mild to moderate renal impairment. Severe renal impairment (CrCl < 30 mL/min) and end-stage renal disease have not been assessed.

Patients with Hepatic Impairment
Dedicated hepatic impairment trials compared the composite systemic exposure of enzalutamide plus N-desmethyl enzalutamide in volunteers with baseline mild, moderate, or severe hepatic impairment (Child-Pugh Class A, B, or C, respectively) versus healthy controls with normal hepatic function. The composite AUC of enzalutamide plus N-desmethyl enzalutamide was similar in volunteers with mild, moderate, or severe baseline hepatic impairment compared to volunteers with normal hepatic function. No initial dosage adjustment is necessary for patients with baseline mild, moderate, or severe hepatic impairment.

OVERDOSAGE
In the event of an overdose, stop treatment with XTANDI and initiate general supportive measures taking into consideration the half-life of 5.8 days. In a dose escalation study, no seizures were reported at < 240 mg daily, whereas 2 seizures were reported, 1 each at 360 mg, 480 mg, and 600 mg daily. Patients may be at increased risk of seizure following an overdose.

NONCLINICAL TOXICOLOGY
Carcinogenesis, Mutagenesis, Impairment of Fertility
Administration of enzalutamide to male and female rasH2 transgenic mice by oral gavage daily for 26 weeks did not result in increased incidence of neoplasms at doses up to 20 mg/kg/day.

Enzalutamide did not induce mutations in the bacterial reverse mutation (Ames) assay and was not genotoxic in either the in vitro mouse lymphoma thymidine kinase (Tk) gene mutation assay or the in vivo mouse micronucleus assay.

Based on nonclinical findings in repeat-dose toxicity studies, which were consistent with the pharmacological activity of enzalutamide, male fertility may be impaired by treatment with XTANDI. In a 26-week study in rats, atrophy of the prostate and seminal vesicles was observed at ≥ 30 mg/kg/day (equal to the human exposure based on AUC). In 4-, 13-, and 39-week studies in dogs, hypospermatogenesis and atrophy of the prostate and epididymides were observed at ≥ 4 mg/kg/day (0.3 times the human exposure based on AUC).

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Men with long life expectancy appear to benefit from surgical treatment

RP vs. watchful waiting: What long-term data reveal

Men with clinically localized prostate cancer and a long life expectancy appear to benefit from undergoing radical prostatectomy (RP) instead of watchful waiting (WW). In a recent report by Bill-Axelson et al, nearly 3 years of life were gained when men with clinically detected, localized prostate cancer were initially managed with surgery as compared to watchful waiting (N Engl J Med 2018; 379:2319-29).

In the Scandinavian Prostate Cancer Group Study Number 4 (SPCG-4), the authors compared the outcomes of RP and WW in 695 men with localized prostate cancer. Between 1989 and 1999, 348 men were randomized to undergo RP and 347 were assigned to WW at 14 centers in Sweden, Finland, and Iceland.

The inclusion criteria required the men to have life expectancy of >10 years, PSA level <50 ng/mL, and clinically localized tumor. Tumors had to be either highly or moderately differentiated according to the World Health Organization classification, and a negative bone scan was also required for eligibility. Further, frozen section analysis of lymphadenectomy specimen was required prior to RP to rule out lymph node metastases.

Clearly, the study population is quite different from our contemporary patients with prostate cancer. For men on WW, treatment was initiated with clinical evidence of disease progression, which was defined as palpable extracapsular extension or voiding obstruction requiring intervention.

After an impressively long follow-up of 23 years, the cumulative incidence of overall death was 71.9% in the RP group and 83.8% in the WW group (12.1% absolute difference). The cumulative incidence of death from prostate cancer was 19.6% in the RP group and 31.3% in the WW group (12.1% absolute difference).

At 23 years of follow-up, the mean years of life gained in the RP group, when compared to the WW group, was 2.9 years.

Further, the cumulative incidence of distant metastases at 23 years was 26.6% in the RP group and 43.3% in the WW group (12.1% absolute difference). The relative risk of metastases over the follow-up period was reduced by 46%.

The beneficial effect of RP was more pronounced in men <65 years of age, in whom the absolute difference in overall mortality was 15.0 percentage points lower, prostate cancer mortality was 15.1 percentage points lower, and the risk of metastasis was 18.6 percentage points lower than in the WW group.

In men undergoing RP, pathologic features such as extracapsular extension and Gleason score 8 were associated with 5 to 10 times higher relative risk of death.

This study highlights the long lead time associated with localized prostate cancer and underscores the relative clinical futility of analyzing treatment effect with short-term (<10 years) follow-up. In the current study, benefit from RP continued to improve, from 5% at 10 years to 12% at 23 years of follow-up.

How study differs from PIVOT, ProtecT

There are some important differences between this study and previous trials comparing various management strategies for localized prostate cancer. The PIVOT trial, conducted in the U.S. VA medical system, did not show an overall benefit from treatment in men with localized prostate cancer. One of the possible reasons is the differences in baseline risk of death. In the PIVOT cohort, with 19 years follow-up, the risk was similar to the SPCG-4 cohort after 10 years’ follow-up, suggesting that longer follow-up may show different results.

The ProtecT trial is substantially different from the current study in that it only included PSA-detected prostate cancer, and active surveillance with curative intent was used instead of watchful waiting.

This study provides significant and useful information about the long-term outcome of “clinically” detected prostate cancer.
MARGARET S. PEARLE, MD, PhD

Dr. Pearle is a professor with joint appointments in the department of urology and the Charles and Jane Pak Center for Mineral Metabolism and Clinical Research at UT Southwestern Medical Center, Dallas.

Dr. Pearle was interviewed by Urology Times Editorial Consultant Gopal H. Badlani, MD, professor of urology at Wake Forest Baptist Medical Center, Winston-Salem, NC.

Q: You chaired the panel that developed the AUA guidelines on medical management of kidney stones. How well are these guidelines being followed today?

A: The results are somewhat disappointing, although I’m not sure we’ve really seen the full penetration of the guideline yet. One study looked at utilization of the guideline using the metric of 24-hour urine studies ordered in patients who had been diagnosed with a stone, although this came from an administrative dataset, rather than patient-level data. The numbers were pretty low—about 7% in a study that looked at patients presenting to the ED and being diagnosed with a stone for whom 24-hour urine studies were ordered within 6 months of the ED visit. When the authors looked at higher risk individuals, I think that number was only about 16%.

That is certainly lower than we would like to see. But the guideline came out in 2014, and my guess is that it takes a few more years to really see it start to change practice.

The goal of the guideline was to try to create a document comprised of a set of guideline statements that would make the process of medical evaluation and management easy. I think clinicians look at it as a daunting task to evaluate stone patients medically. They don’t know who to evaluate, they don’t know what to evaluate, they don’t know what test to order, and then they don’t know what to do with the information they receive.

In addition, I think some urologists have concerns about prescribing medications, because the medications require careful follow-up and blood testing to monitor for side effects. But we’ve been prescribing medication in urology for decades whether it’s for BPH, erectile dysfunction, or cancer. We have to monitor those patients for side effects, with liver enzymes, complete blood count, or PSA. We are capable of monitoring patients for side effects of medications, and I think the same has to be done for medications aimed at stone prevention.

The guideline sets forth a fairly simple recipe to identify which patients should be evaluated, how we should evaluate them, how to treat them with diet and medication, and even broadly how they should be followed. For probably 95% of recurrent stone formers, these guidelines provide relatively straightforward recommendations for medical management. There are probably 5% of patients who are complex and will require more expertise and more testing, but I think the vast majority of stone patients can be well managed from this document.

Q: Urology is all about technology and you’ve been on the forefront, especially in the area of ureteroscopy. What do you think about the disposable ureteroscope?

A: I think disposable ureteroscopes have a distinct place in our armamentarium. They have been shown to be safe, effective, and even cost-effective compared to some reusable digital ureteroscopes, although they are admittedly a little bigger and have an image quality that is inferior, although certainly acceptable for stone management.

Processing and maintenance of flexible ureteroscopes, particularly digital flexible ureteroscopes, is labor intensive and costly, so for institutions or hospitals that do not perform large numbers of ureteroscopies and do not own a large array of scopes, it can be prohibitive to maintain these instruments. In those situations, I think a disposable flexible ureteroscope is a very useful device because it obviates the need for highly skilled workers to maintain these instruments.

In addition, having a disposable ureteroscope means that you never are without a functional ureteroscope. If your reusable scope breaks, you can always finish your case if you have a disposable ureteroscope available. There is clearly a role for them, whether it is for use in technically difficult cases that pose risk of damage to the ureteroscope, as a
Is ESWL making a comeback?

Q: How does the cost work out for disposable ureteroscopes?

A: Some studies have demonstrated that they can be cost-effective or at least cost neutral. It just depends on the setting in which they are used and the number of cases performed. However, I can imagine a model in which disposable scopes are cost-effective when you factor in the time and labor required to maintain the ureteroscope at your institution.

Q: For years, there has been a debate on managing stones with ureteroscopy or extracorporeal shock wave lithotripsy. For a while, it looked like ureteroscopy was the way to go. Have there been second thoughts on this of late? Is ESWL making a comeback?

A: I don’t know that shock wave lithotripsy is making a comeback. By any number of metrics... ureteroscopy has definitely inched out shock wave lithotripsy as the most commonly performed stone procedure. Percutaneous nephrolithotomy remains under 10% and ureteroscopy is probably more like 60% versus 30% for shock wave lithotripsy. Younger urologists use ureteroscopy more than shock wave lithotripsy, and you can see how that trend has changed over time.

I think the change in utilization is because shock wave lithotripsy technology has been disappointingly stagnant, while ureteroscopy technology and technique have really advanced. We have better ureteroscopes, and we have technically gotten better at performing ureteroscopy. There are very few kidneys and stones that we are unable to access with a flexible ureteroscope and virtually no stones that we can’t fragment with a holmium laser. Access really isn’t an issue anymore.

But what we’re starting to look at now is effectiveness. With shock wave lithotripsy, we went through a period of time when it was first introduced in which the technology was used indiscriminately for all types and sizes of stones. Over time, we became more selective and started to identify patient subgroups for whom SWL was more or less effective. Now, we have refined patient selection such that we enrich the treated patient population with shock wave lithotripsy and those who are likely to have a successful outcome.

We now know that patients with lower pole stones greater than a centimeter should not be treated with shock wave lithotripsy. We also have certain CT parameters that we can use to identify patients who are likely to have a successful outcome.

We haven’t done that extensively yet with ureteroscopy. We are in a “loveseat” with ureteroscopy right now by which we are treating bigger and more complex stones, even partial staghorn calculi, ureteroscopically. But I think it is not a matter of “can we?” but “should we?” Are we doing patients a favor by doing so?

As we have been increasingly scrutinizing ureteroscopy outcomes using more sensitive imaging modalities like CT that detect residual fragments more accurately than KUB or ultrasound, we are finding that the stone-free rates with ureteroscopy aren’t as good as we thought. We are finding across the board with prospective and retrospective studies that ureteroscopy for stones in the kidney and ureter have about 50%-55% stone-free rates by CT, which is not that much better than shock wave lithotripsy, although we have never really subjected shock wave lithotripsy to the scrutiny of CT imaging.

I don’t know that we are going to ever revert back to the utilization of SWL that we saw in the past, but I also don’t know that ureteroscopy is the answer we are ultimately looking for. There may be a narrower group of patients who can be effectively treated ureteroscopically, and for those other patients, we may need to look at other technologies like mini-PCNL that possibly can achieve better stone-free rates, particularly for medium-sized stones. Standard PCNL still remains the gold standard for stones that are larger than 2 cm. But patients with 1- to 2-cm stones may comprise the subgroup for whom the treatment algorithm may need to change.

Q: In my travels across the world, I’ve observed that PCNL access by urologists is much better outside the United States. In the U.S., it has not crossed the 10% mark that we’ve been talking about for years.

A: That is absolutely true. We have really lagged behind other countries in obtaining our own access. I think there are a number of barriers. In a lot of training programs, even endourology fellowship programs, residents or fellows did not learn percutaneous access if access was not obtained by the program director. However, it is required in our fellowships, so if mentors do not gain access themselves, then the fellows have to be exposed to interventional radiologists who can teach them how to obtain percutaneous access. As the residents and fellows learn more, hopefully they will carry that into practice with them.

Access is the biggest barrier to performing PCNL. It is what prevents practitioners from treating large stones appropriately and to force SWL and ureteroscopy treatment for stone sizes for which they are ill-suited. If we incorporated percutaneous access better into our residency and fellowship programs, those barriers would quickly fall.

There has been a surge in ultrasound-guided percutaneous access, and we in the U.S. have also been late to this trend. Now, there is a lot of interest here in learning ultrasound-guided access, which I suspect will help break down some of the barriers.

Some argue that if you do less than 10 percutaneous procedures in a year, you will never become proficient. But as you learn to do it, you find more indications for it than you do currently. Anyone who starts doing PCNL, whether in private practice or not, if stones make up the entirety of your practice, you will find indications for the procedure if you know how to do it.

Q: What are your thoughts on robotic ureteroscopy?

A: I like the thought of robotic ureteroscopy. I’m jealous of my partners who do robotic surgery, because when I walk into their ORs, they are comfortably sitting at the computer with their shoes off, no gown or gloves. They don’t suffer from back, neck, or wrist problems. I would be happy to be more comfortable when I operate, too, and I believe a robot can operate a ureteroscope better than my limited hands. Of course, there are some tasks that require haptic feedback, like placing an access sheath, that will require careful integration. But I believe there is a role for robotic ureteroscopy, and I look forward to seeing these platforms develop.
Cosmetic surgery in men: Fad or new trend?

Concerns over facial, skin, genital appearance heighten demand for procedures

ASHRAF ALLAHWALA, MD
DEAN S. ELTERMAN, MD, MSc

Dr. Allahwala is a clinical research associate and Dr. Elterman is assistant professor, division of urology, University Health Network, University of Toronto.

A mericans spent approximately $16 billion on cosmetic surgery in 2016, according to an American Society of Plastic Surgeons report. Traditionally, cosmetic surgeries have been popular among women, with approximately 90% of all cosmetic surgery cases performed in female patients. However, growth in the male aesthetics market has translated into increased interest in cosmetic surgical procedures (Dermatol Clin 2018; 36:5-10). The male market has increased for several reasons: Shifting social attitudes, improved professional competitiveness, new trends in fashion, and the attainment of an idealized self are a few reasons most often cited in the literature (J Drugs Dermatol 2015; 14:1043-51).

Of concern is whether the increased demand for male cosmetic procedures is a passable trend or a lasting norm. Clinicians interested in servicing this new community will have to consider the benefits of shifting their practice in order to meet the demand for male-focused cosmetic procedures.

In general, males focus their facial cosmetic concerns around the hairline, periocular region, and jawline.

Behavioral differences in men

It is also important to note significant behavioral differences between males and females in their approach to cosmetic surgery. Males tend to focus on specific areas such as the hairline, periocular region, and jawline, whereas females typically seek treatments for the entirety of their face.

TABLE 1. TOP FIVE COSMETIC PROCEDURES IN MEN: SURGICAL

<table>
<thead>
<tr>
<th>Procedure</th>
<th>Number performed in men</th>
<th>Percent of total (vs. women)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Liposuction</td>
<td>31,021</td>
<td>10% (90%)</td>
</tr>
<tr>
<td>Eyelid surgery</td>
<td>22,311</td>
<td>15% (85%)</td>
</tr>
<tr>
<td>Breast reduction</td>
<td>20,167</td>
<td>22% (78%)</td>
</tr>
<tr>
<td>Tummy tuck</td>
<td>8,576</td>
<td>6% (84%)</td>
</tr>
<tr>
<td>Facelift</td>
<td>8,174</td>
<td>10% (90%)</td>
</tr>
</tbody>
</table>

Source: American Society for Aesthetic Plastic Surgery 2017 statistics
and females. There are many external risk factors for aging including sunlight exposure, pollution, cigarette smoking, repetitive muscle movements, and poor diet, with the most common being ultraviolet light exposure and smoking (JAMA 2014; 311:183-92). Men who smoke tend to smoke more than their female counterparts, which increases their risk for skin aging (J Invest Dermatol 2003; 120:548-54). Furthermore, men are more likely to be exposed to UV radiation and less likely than women to apply sunscreen and utilize sun-protective behaviors.

Physicians need to be more cognizant of these gender differences in behavior and how these behaviors affect overall patient management.

Goals/expectations of treatment
In a patient considering cosmetic surgery, it is crucial that physicians assess the patient’s goals and expectations. This includes a determination of the patient’s aesthetic goals. Typically, males want to look younger while also enhancing features to appear more masculine. However, there is a point at which an aesthetic can become too masculine and may be undesirable by the patient. Therefore, it is important for clinicians to determine what features are considered aesthetically appealing in advance. More often, this is crudely defined as a mixture of masculine and feminine facial features.

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Technological and technical advances are reshaping the extent of aesthetic change possible with noninvasive and minimally invasive techniques.

In general, males focus their facial cosmetic concerns around the hairline, perioral region, and jawline, according to statistics from the American Society for Aesthetic Plastic Surgery. Men want to maintain their scalp hair, tighten their jawline, reduce dark circles and bags under the eyes, and reduce the prominence of wrinkles. Men also want to maintain their figure by having a slim waistline and smaller breast size if they have gynecomastia (Dermatol Clin 2018; 36:5-10).

Cosmetic surgery has also increased in males as a result of gynecomastia concerns. Studies show that if a man feels negatively about his “genital self-image”—the way a man regards his genitals—it may affect his sexual performance. If men are anxious and worried about their genitals’ size, appearance, and function, the result could be increased anxiety and subsequent sexual dysfunction.

Research shows that approximately 20% of males are embarrassed or unsatisfied with the appearance of their genitals (J Sex Med 2013; 10:1516-25). As such, it is noted that the number of scrotal lift procedures, penile and testicular enhancements, and adult cosmetic circumcision procedures is also increasing.

A second consideration is the patient’s willingness to undergo intrusive therapies. Consideration for the degree of invasiveness tolerable by the patient will limit the degree to which the clinician is able to achieve the patient’s desired aesthetic. However, technological and technical advances are reshaping the extent of aesthetic change possible with noninvasive and minimally invasive techniques.

For example, over the last two decades, the way facial aesthetic procedures are typically performed has changed. Facial procedures were regularly completed in the operating room, but with the emergence of noninvasive techniques, such as botulinum toxin A (Botox, Dysport, Xeomin) injections , soft tissue fillers, and chemical peels (Aesthet Surg J 2017; 37:1039-43). These minimally invasive procedures have increased in popularity among men as well. Over the last 5 years, there has been a 44% increase in injectables, with a 5% increase from 2016 to 2017. Of all the injectable procedures performed in 2017, men accounted for 9%, with botulinum toxin injections being the top nonsurgical procedure (table 2) (Statistics: The American Society for Aesthetic Plastic Surgery. 2017. www.surgery.org/media/statistics). There has been a notable increase in nonsurgical cosmetic procedures, especially among men.

In general, men prefer nonsurgical cosmetic procedures, as they can be done in the office setting, are relatively quick, and deliver noticeable results. Minimally invasive procedures are suitable options for patients who want an alternative to surgery and often have the added benefit of producing a long-lasting patient-clinician relationship.

Conclusion
It is evident that although men are not the major consumer in the cosmetic industry, they are on track to become significant consumers of cosmetic procedures. Examination of data over the last two decades shows men are becoming an increasingly important sector of this industry, with greater attention paid in developing techniques and technologies to address the demands of this population.

As longevity increases, there will be greater societal focus on maintaining a healthy, youthful physical appearance. This interest will create novel opportunities for clinicians to develop and deliver novel cosmetic surgical solutions to address this demand. In the future, men may eventually surpass women as recipients of key cosmetic procedures.

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### TABLE 2. TOP FIVE COSMETIC PROCEDURES IN MEN: NONSURGICAL

<table>
<thead>
<tr>
<th>Procedure</th>
<th>Number performed in men</th>
<th>Percent of total (vs. women)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Botulinum toxin injections</td>
<td>160,398</td>
<td>10% (90%)</td>
</tr>
<tr>
<td>Hyaluronic acid injections</td>
<td>46,565</td>
<td>6% (94%)</td>
</tr>
<tr>
<td>Nonsurgical fat reduction</td>
<td>23,450</td>
<td>13% (87%)</td>
</tr>
<tr>
<td>Hair removal (laser or pulsed light)</td>
<td>18,626</td>
<td>10% (90%)</td>
</tr>
<tr>
<td>Photorejuvenation</td>
<td>9,112</td>
<td>8% (92%)</td>
</tr>
</tbody>
</table>

Source: American Society for Aesthetic Plastic Surgery 2017 statistics
Does opting out of Medicare affect locum tenens billing?

One-year transition period as non-participating provider recommended

Q: My private practice is part time, and I have opted out of all private payers, remaining only in Medicare. However, I am thinking of opting out of Medicare as well. I also do locum tenens work, but the hospital does all the billing and I receive nothing from CMS, so I’m assuming my services are billed through the hospital that I work as a locum? Does all the billing and I receive nothing from CMS, well. I also do locum tenens work, but the hospital out of all private payers, remaining only in Medicare.

A: Q:

Does opting out of Medicare affect services to patients of the hospital during specified periods on an intermittent basis throughout the year. When you are not in town, there is either no urologist in town or there is another urologist who is also providing coverage as you do on an intermittent basis. In short, you are providing urology services to the patient population on behalf of the hospital, but not covering for another physician.

If you opt out of Medicare, Medicare will not pay for any service reported under your National Provider Identifier (NPI). Under this scenario, it would appear that the hospital is reporting your services to Medicare and receives payment for those services under your NPI as the rendering provider. The hospital would not be able to bill for your services.

However, Medicare would continue to pay the hospital for any services you have ordered and services the hospital provided, such as hospitalizations, OR time, imaging, lab studies etc., if you have supplied your Social Security number and NPI on the optout affidavit.

Situation 2. You are providing services to an area that is normally served by a physician for whom you are being hired for a period of less than 60 days to cover for. (This period can be longer if you have multiple opinions when researching this situation.

Opinion 1. An optout physician was not precluded from billing under a contracted arrangement in which the physician was paid solely on time worked and services were reported with modifier –Q5 appended to the service with the regular provider’s NPI as the rendering physician. The regular provider is required to maintain a record of the covering physician’s NPI and credentials.

Opinion 2. The optout provider status would continue to pose a problem, as the affidavit prohibits billing Medicare for any services provided.

In the end, we encourage you to seek legal opinion in your state for you and your potential employer before opting out. We would also encourage you to consider first moving to “non-par” (non-participating) status with Medicare for at least 1 year as a transition to optout status. As a non-par provider, you bill your patients directly for all services, and you can either ask the patient to bill Medicare or bill for the patient and the patient would receive payment from Medicare.

As a non-par provider, you are limited to a charge of 109% of Medicare allowed amount and must follow Medicare rules. The non-par status does, however, start you down the path to opting out of Medicare and will not affect your status with the hospital. Your contracting entity, hospital or other, could except assignment on any patient, but would be paid 5% less then if you were a participating Medicare provider.

A: Q:

My dad recently started bacillus Calmette-Guérin infusion therapy for his bladder cancer. He goes to his urologist’s office to get the catheter inserted by a nurse and then to the local hospital’s infusion center for the administration of the drug. He is on his second treatment. He recently got a bill for $200. It appears the hospital is billing his insurance a “surgical procedure” every time he goes in for an infusion. There is no surgical procedure. There is an injection into the catheter. No physician is present. I’m so baffled by this billing code. Can you please tell me how this procedure should be properly billed?

A: The correct CPT code for the instillation of BCG is 51720 (Bladder instillation of antitumorogenic agent [including retention time]). And although there is no incision or anesthesia—what we typically think of as a surgical procedure—the service has been assigned a code within the surgical section of CPT and is assigned a global period that is treated by payers and physicians alike as a “surgical” service. The hospital charge/payment is based on a formula that allows the hospital to include typical supplies (whether or not they are used), personnel costs, and general overhead. The charge is based on the CPT code for the service and is often labeled as a surgical charge.

Therefore, the reporting is at least partially accurate. The hospital should also report the BCG as a separate charge under code J9031. Based on your description of the services, we would project the hospital charges to be as follows: $1720 and J9031. The amount of charge and reimbursement would vary.

The answer provided here should apply to your situation, particularly if the physician is employed by the hospital in the hospital is billing for all services. However, if the physician is not employed

Please see OPTING OUT, page 24
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What 2019 MIPS changes mean for your practice

Limited number of outcome measures available to urologists

Urology practices that employ physician assistants or nurse practitioners—who may not exceed these low-volume thresholds as individuals—may wish to participate as a group, especially in the early years of a program when positive payment adjustments are more achievable.

**MIPS composite score.** The MIPS composite score required to avoid a negative adjustment was finalized at 30 points, and the threshold for participating in the “exceptional performance” pool of $500 was changed from 70 points to 75 points for the 2019 performance year. By statute, the maximum payment adjustment earned by performance during 2019 (applied in 2021) is +/-7%.

The final rule did not include any estimates of impact by specialty using these new thresholds, but in aggregate CMS projects that 798,000 eligible clinicians will participate in MIPS in 2019 (up from 604,000 in 2018), and $390 million in negative adjustments will be redistributed to MIPS clinicians who have a positive performance in 2019 (up from an estimated $118 million in 2018). The actual impact by MIPS composite score will not be known until a scaling factor is applied for the payment year, as required by law. Urologists should understand that the bar for performance will continue to rise and strive to achieve maximum performance to participate.

**Quality category.** A number of changes to

<table>
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<th>Item</th>
<th>2017</th>
<th>2018</th>
<th>2019</th>
</tr>
</thead>
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<td>Quality Category weight</td>
<td>60%</td>
<td>50%</td>
<td>45%</td>
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<tr>
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<td>0%</td>
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<td>Promoting Interoperability weight</td>
<td>25%</td>
<td>25%</td>
<td>25%</td>
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<td>Improvement Activities weight</td>
<td>15%</td>
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<td>Point threshold for + adjustment</td>
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<td>30</td>
</tr>
<tr>
<td>Point threshold for exceptional adjustment</td>
<td>70</td>
<td>70</td>
<td>75</td>
</tr>
</tbody>
</table>

Source: Adapted from Centers for Medicare & Medicaid Services data by Robert A. Dowling, MD

OPTING OUT

continued from page 22

by the hospital, you may receive an additional charge for the insertion of the catheter. That code may vary based on the arrangements between the physician and the hospital.

**Q:** What is the correct way to report a simple laparoscopic prostatectomy? I was told to use the appropriate open code, but my compliance department tells me I should use the unlisted code. We have agreed to report based on your answer.

**A:** First, we will start with the obvious. There is no specific code for a simple laparoscopic prostatectomy. Therefore, using an unlisted code would not be inappropriate. That being said, we also think you have the option of using the appropriate open code.

We will share with you our reasoning.

The codes currently used to report open prostatectomy—55831 (Prostatectomy [including control of postoperative bleeding, vasectomy, meatotomy, urethral calibration and/or dilation, and internal urethrotomy]; retropubic, subtotal) and 55821 (Prostatectomy [including control of postoperative bleeding, vasectomy, meatotomy, urethral calibration and/or dilation, and internal urethrotomy]; suprapubic, subtotal)—do not specifically include that they have to be performed by an “open” procedure nor do they exclude the use of a laparoscope. The approach, open or laparoscopic, is not designated. Therefore, the codes could be used to report either approach.

To add to the comfort of that decision, the AUA, in a Policy & Advocacy Brief, published the suggested coding as recommended by the AUA Coding and Reimbursement Committee. They recommended using the appropriate code 55831 or 55821 for the reasons stated above. AUA officials cannot set payment policy for CMS, but their opinions have a lot of influence. If you follow their advice, you will be safe from fraudulent billing claims, even though a payer may not agree with the recommendation.
the Quality category were finalized in the rule. As proposed, the 2019 weight for Quality will be 45%, and groups of 15 or fewer physicians can submit some quality measures via Part B claims whether they submit as individuals or as a group. Those same “small groups” can qualify for six bonus points added to the numerator of the Quality performance category if they submit data on at least one quality measure, a more generous bonus than originally proposed.

Also, eligible clinicians can submit quality measures via multiple different collection types—a change from previous years. The urology specialty measure set remains largely unchanged from 2018; proposed changes to add a BPH outcome measure and remove an incontinence measure were not finalized.

Urologists continue to have a limited number of outcome measures available, and MIPS requires that at least one outcome measure be reported. The selection of quality measures continues to be largely determined by which EHR and/or registry is used for MIPS reporting. Practices should know which measures they can choose from and have some mechanism in place to measure performance in real time and improve.

Cost category. Proposed changes to the Cost category were finalized, and the category will have 15% weight in the 2019 performance year. New inpatient and procedure episode measures were finalized, and none impact urology in 2019. As reported earlier, urologists will probably be impacted in 2020 with an episode measure for kidney stones. It is not too early to begin thinking about controlling costs that are under your control, as performance in this area will eventually have major impact on the MIPS score.

Improvement Activities category. This category (15% weight, 90-day reporting period) contains no significant proposed changes to the inventory of activities for the specialty of urology, and the activity weights (high, medium) and scores remain the same. However, the bonus for using certified EHR technology associated with some activities has been eliminated. This category continues to be easy for urologists.

Promoting Interoperability category. The most significant changes to MIPS were finalized in the Promoting Interoperability category. All scoring will be based on performance, and the measures have been consolidated into four objectives. Performance in this category will be optimized by maximizing e-prescribing, implementing electronic prescribing of controlled substances, making sure all patients are offered registration on a patient portal, and understanding the sending and receiving of care summaries.

Practices should review these changes with their EHR vendor and monitor clinician performance in this category carefully. Finally, urologists will need to use 2015 EHR certified technology in order to achieve points in the Promoting Interoperability category—check with your vendor to be sure you are, or soon will be, upgraded.

Bottom line: The Quality Payment Program and MIPS continue to evolve, and urologists continue to have an opportunity to achieve positive payment adjustments. Future years should bring more urology-specific measures.

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How to make sense of the IRA aggregation rule

Rule must be applied when making a distribution from non-Roth IRA

Q: I rolled an old retirement account into a rollover individual retirement account (IRA), but then discovered that IRA aggregation rules may make contributing to a backdoor Roth IRA difficult going forward. How does one affect the other?

A: The IRA aggregation rule was created to limit the ability of taxpayers to use non-deductible IRAs as a tax shelter. A non-deductible IRA is often used when a high-income earner wants to save in an IRA, but they earn too much to contribute directly to a Roth IRA or qualify for the tax deduction of a traditional IRA. As a result, their only option is to contribute to the traditional IRA and not take the tax deduction, which effectively makes it a non-deductible IRA. Once in the non-deductible IRA, many physicians choose to convert the money to a Roth IRA—a process often referred to as a “backdoor Roth IRA.”

In an effort to prohibit individuals from “cherry picking” distributions from their non-deductible IRAs and considering them as taxable or a return of principal, the IRS mandated that all IRAs be aggregated when determining the tax consequences of making a distribution.

As an example, assume you rolled $50,000 from a previous retirement account into an IRA rollover. Now you want to take advantage of a backdoor Roth IRA and contribute $5,500 into a non-deductible IRA with the intention of converting it to a Roth. When the conversion takes place, the IRS considers it a distribution from the non-deductible IRA, and the IRA aggregation rules must be applied. To determine what amount is return of principal versus what amount is taxable, you must divide the converted amount by the aggregate value of all non-Roth IRA accounts.

In this example, you would divide $5,500 by $55,500 ($50,000 + $5,500), which is approximately .0991. This means that $5,454.05 ($5,500 x .9991) is considered return of principal and can be transferred into the Roth IRA tax free; the remaining $4,954.95 ($5,500 – $545.05) is subject to taxes. The taxable amount is taxed at your top marginal tax rate. If we assume a top marginal tax rate of 35%, then the tax due on the transfer is $1,734.23 ($4,954.95 x 35%).

There are two different ways you can handle the tax payment. You can net it out of the total amount transferred into the Roth account. In our example, that would result in $3,220.72 ($4,954.95 – $1,734.23) being transferred into the Roth account after the taxes had been paid. The other option is to transfer the full $4,954.95 into the Roth account and then pay the taxes due when it comes time to file your taxes.

Pay taxes as a result of the IRA aggregation rule isn’t all negative. By paying taxes when the conversion and transfer occurs, the next time you go through this conversion process, you get to reduce the pre-tax balance by the amount you paid in taxes the year before.

Using our previous example, next time the conversion takes place, instead of dividing $5,500 by $55,500, you would divide it by $53,765.77 ($55,500 – $1,734.23). Investment gains and losses in the pre-tax account may result in different amounts prior to subtracting the $1,734.23, but for simplification purposes, this example will work. Each year taxes are paid on the conversion, it further adds to the basis and reduces the amount used to determine how much passes to the Roth IRA tax free versus amounts that are taxable.

Overall, IRA aggregation rules can be very complicated and may apply to many other scenarios related to distributions from your IRAs. We recommend speaking with your financial adviser about the impact of opening different types of IRAs and how it may affect distributions in the future.

Q: What types of accounts are subject to the IRA aggregation rules?

A: The IRS requires you to use the IRA aggregation rules to compute the pro-rata taxable and non-taxable amount when a distribution is made from any non-Roth IRA. This includes traditional IRAs, non-deductible IRAs, SEP IRAs, and SIMPLE IRAs. Notably, the aggregation rule is only for IRA accounts. Employer retirement plans such as 401(k)s, 403(b)s, or profit-sharing plans are not subject to these rules. For this reason, some may consider rolling existing IRA accounts into employer-sponsored plans to minimize possible tax impact.

Additionally, inherited IRAs are also exempt. Finally, an individual’s IRAs are never aggregated with a spouse’s. Each person’s aggregation circumstances are calculated separately.
When medical practices look back over their billings for 2018, many will find they lost the most revenue collecting directly from patients. Deductibles, copays, and self-pays can be difficult to collect.

If you want to improve your practice’s bottom line in 2019, adjusting how you handle collections might be the smartest—and easiest—New Year’s resolution you can make.

“Many doctors think that the industry hasn’t changed. They think patients pay a $25 copay and they’re done,” said Karen Lake, health care consultant with the firm Pearce, Bevill, Leesburg, Moore.

But cost sharing between insurers and patients has grown dramatically in recent years. According to research by the Kaiser Foundation (bit.ly/healthplanreport), the average general annual deductible for single coverage increased from $303 to $1,221 between 2006 and 2016.

Four ways to boost your practice’s profits in 2019

Verification of insurance, using a credit card service among recommendations

**AVERY HURT**
Ms. Hurt is a contributor to Urology Times sister brand Physicians Practice, where this article was originally published.

**Plan in advance.** If a patient is facing a bigger bill, such as for a surgery or procedure, set up a payment plan in advance, Lake advised. Communicate to the patient what the copay for this procedure will be, say, $500. Then explain that figure doesn’t include other charges, such as those from the hospital or anesthesiologist.

Get the patient to sign an agreement to pay the deductible in installments. This will help prepare patients for the costs—and avoid the sticker shock that can damage patient relations. Sending the bill early will also put you in the front of the billing line.

**Use a credit card service.** Some experts advise against keeping patient credit cards on file due to the privacy and potential security risks. However, you can keep that info on file while also limiting your liability.

“There are third-party systems that hold credit or debit cards but do not charge them until the insurance has responded. Then they send an email letting patients know that in three days their card will be charged whatever the balance is. You don’t hold the credit card information; the third-party company does,” Lake said.

The third party is responsible for the legal risks, but Lake advised working with a reputable company if you opt for this service.

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**Add it to the script for staff to remind patients of any outstanding balance when you call with appointment reminders.**

If you ended 2018 in the red because of collections, these simple tweaks could put you back in the black in 2019. 

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**Get more billing and collections tips**

Here are some resolutions that can improve your practice’s billing and collections in the New Year.

**Resolve to educate your patients.** Consider printing a simple flyer that explains billing basics that can apply to any insurance plan. Direct patients toward the customer service number on the back of their insurance cards for more detailed questions.

**Resolve to talk to your patients in an effective way.** Make sure your staff knows how to communicate with patients about their bills.

For more on this article from Urology Times sister brand Physicians Practice, please see bit.ly/billingstrategies.
EHR TIPS
continued from page 1

number one factor that contributed to urologists feeling burned out. About one-third of urologists said they spend 10–19 hours per week and another 22% spend 20–29 hours per week entering data in their EHR, the survey showed.

“EHR usability, which is the extent to which this technology can be used efficiently, effectively, and safely by clinicians to deliver care, has emerged as one of the most pressing issues in health care,” according to an article published in JAMA (2018; 320:2533–4).

The EHR is the central nervous system at most urology practices, making frustrations with the technology an hourly event for urologists, said Robert A. Dowling, MD, a urologist and board-certified clinical informaticist, principal of Dowling Medical Director Services, and the former medical director of a large metropolitan urology practice.

“The most common complaint that physicians have with their EHRs is that they just can’t navigate or accomplish repetitive tasks in as short a period of time as they’d like.”

ROBERT A. DOWLING, MD

and the former medical director of a large metropolitan urology practice.

“An important functionality that’s not unique to any EHR is the ability to preserve your records from physical destruction by having them backed up in another location or in the cloud. That became very relevant to our practice a few months ago when we had a devastating fire in our central hub,” Dr. Spitz said.

“Having an EHR that has a backup in the cloud or simultaneous real-time off-site backup can be critical.”

Customize—but not too much
Urology practices should aim to have fundamental aspects of the EHR maximized for the practice’s workflow. That means the practice needs to be engaged with the people who are configuring the system, according to Dr. Schlossberg.

“It’s making sure that the EHR is personalized across the practice in order to leverage the EHR for how it’s best used, which is to automate certain routine tasks,” Dr. Schlossberg said.

Urologists, however, should balance their desires to customize EHRs with allowing the technology to do what it’s supposed to do.

“The closer you can stay to the foundation or to the vendor-delivered solution, the better,” Dr. Schlossberg said.

“Make sure your institution or vendor continues to provide support for 1 year. You will be amazed at the numbers of small problems and issues you will encounter that must be addressed, but occur infrequently.”

PETER C. ALBERTSEN, MD

Urologists should go to the training classes and invest the time they need to become proficient, said Peter C. Albertsen, MD, professor of urology at the University of Connecticut, Farmington.

“You will be clumsy and frustrated in the beginning,” Dr. Albertsen wrote in an email to Urology Times. “Make sure your institution or vendor continues to provide support for 1 year. You will be amazed at the numbers of small problems and issues you will encounter that must be addressed, but occur infrequently. Talk to your colleagues. This is the best way to learn shortcuts and workarounds.”

Practices should also charge one or more people who are engaged EHR users to help other staff learn and best use the system. Staff education is key for optimal EHR use, according to Dr. Schlossberg.

Create templates
When using an EHR, it’s not always necessary for urologists to reinvent the wheel. Prepopulating templates for standardized care in a practice can increase efficiency, Dr. Schlossberg said.

Jim Kovarik, PA-C, a physician assistant and EHR super user at the University of Kansas
Health System, Kansas City, said creating templates requires time initially but saves time in the long run. He recommended practices create custom templates and orders for as many types of orders as possible, such as common lab, radiology, and medication orders.

“I believe it speeds up ordering during clinic and minimizes order confusion, which can generate additional phone calls from the patient, lab, or radiology department later,” Kovarik said.

Kovarik said he also uses prepopulated templates for common discussions or patient instructions, for which providers use the same language or have the same discussion in every circumstance. That can speed up documentation. But these and other prepopulated templates have to be edited for the specific patient or clinical scenario at that time, he said.

Urologists’ ability to create templates or subroutines is built into EHRs, according to Dr. Spitz.

“A very common one that I use is a discussion of risks and benefits of a surgical procedure. I’ll have that discussion in the room with the patient. It can be a lengthy discussion. So, I don’t have to spend the same amount of time typing out a re-creation of that discussion. If there are any modifications, I can add those with a few words here or there, but I don’t have to re-create the conversation every time,” Dr. Spitz said.

The goal of using templates is to improve efficiency while maintaining accurate patient records. It’s not to cut and paste without reviewing the information to make sure it’s accurate and current, according to Brianne Goodwin, JD, RN, manager of clinical risk and patient safety at Cambridge Health Alliance, Cambridge, MA.

Pulling information that’s not current and accurate can multiply quickly, ending up in progress notes or as a surgical op note, among other places, Goodwin said.

“Things that are static like a patient’s date of birth are certainly helpful in reducing waste and time, but it’s a little bit more of a risk pulling information that is likely to change or could change,” she said.

Utilize passive documentation
Tools that passively document while physicians interact with patients can help alleviate documentation frustrations. Options include having an actual scribe in the room, as well as virtual scribes who are connected through a micro-phone, camera, or both.

“Voice recognition software has gotten very good. It doesn’t require training anymore. Those physicians who are facile—more facile with dictating than typing or clicking—are finding that it’s quicker and faster than it used to be and definitely more accurate than it was, say, 5 years ago,” Dr. Dowling said.

There are considerations with these workarounds, however.

Having a scribe should not take the place of understanding how to use the EHR, according to Dr. Schlossberg.

“Although scribes are valuable, I think they’re most valuable in combination with the physician really understanding the EHR,” he said.

There might also be legal implications associated with using a scribe—whether in person or virtually, according to Goodwin. The medical scribe field, she said, is a highly unregulated field of employment, and urologists should understand scribes’ limitations and possible pitfalls. For example, scribes’ level of expertise and knowledge of medical terminology is not standard.

“Some people refer to it as the Wild, Wild West,” Goodwin said. “But it’s also an area where hiring is happening at a very fast rate because they have been felt to be very helpful for office efficiency and to be able to get more eye-contact time with patients rather than staring at the screen and typing.”

Urologists who use voice recognition software can avoid potentially costly mistakes by proofreading their notes, she said.

“Make sure that a urethra is not a ureter. Sound-alike words should be proofed, and make sure the note is only signed after it has been read,” Goodwin said.

Dr. Dowling suggested that urologists don’t use the progress note section to store information they might review in the future. They should instead use the notes section of a problem list or other option.

“That way, they don’t have to scroll through or review all the notes that they’ve created in the past,” Dr. Dowling said.

And urologists who haven’t should convert to electronic superbills. Why? Dr. Dowling says electronic superbills increase billing efficiency.

Relief in sight
The Centers for Medicare & Medicaid Services has announced that it is relaxing documentation requirements for different levels of evaluation and management codes.

“In 2 years, there will be no difference in documentation for levels 2, 3, and 4. And that means that physicians need to focus less on documenting information only for billing purposes that they don’t use for clinical purposes,” Dr. Dowling said.

HOW SHRINKING EHR MARKET IMPACTS DOCS
The number of EHR vendors has dwindled recently following numerous mergers and acquisitions, dropping from 1,000-plus 10 years ago to approximately 400 now, according to KLAS Research, a health IT review firm. Consolidation in the field may have a significant impact on physician practices, an article in Medical Economics explains.

Experts say they expect more vendor consolidation in the future, a fact that could leave physicians with a host of problems, such as reduced levels of tech support, increased fees, and the need to migrate to a new system.

For the full article, see bit.ly/EHRmarket.
Why urology practices should consider forming virtual groups

Participation confers several advantages related to reporting MIPS data

RICK RUTHERFORD, CMPE

Mr. Rutherford, former director and founder of the practice management department of the AUA, has been a thought leader and writer on urology management for more than 20 years.

Urology practices have always been at a disadvantage when participating in quality reporting due to the shortage of specific urologic measures available in programs such as the Physician Quality Reporting System (PQRS), meaningful use of electronic health records, and now, the Merit-based Incentive Payment System (MIPS).

By necessity, urologists have been forced to select measures more appropriate for primary care clinicians in order to capture enough data to earn incentives or avoid Medicare payment reductions. For example, the Medicare Urology Specialty Measure set has typically included diabetes, tobacco use, and high-blood pressure screening, all of which would more likely be carried out by a primary care physician. This has required urology practices to gather information from referral sources or conduct additional screening documentation themselves.

For 2019, eligible clinicians are allowed to form what the Centers for Medicare & Medicaid Services (CMS) describes as “virtual groups.” This allows eligible clinicians who have assigned their Medicare payment rights to different taxpayer identification numbers to collaborate and report MIPS measures as a group.

The following are the required characteristics of a congregation of eligible clinicians who choose to report MIPS within a virtual group:

- May include solo providers and groups as long as no single group has greater than 10 eligible clinicians billing under a single taxpayer identification number. (This includes non-physician providers as well as physicians eligible to participate in MIPS.)
- Eligible clinicians in a virtual group may be of different specialties and/or primary care disciplines.
- Virtual group participation prohibits clinicians from submitting individual report data, but it does not prohibit individuals from simultaneously participating in an alternative payment model (APM). Involvement in both does require that APM participants also report MIPS performance data through the virtual group.

Virtual group participation may allow reporting on an expanded number of measures, therefore increasing the reliability due to larger amounts of performance data.

Urology practices that have struggled to achieve payment increases and bonuses under MIPS for 2017 and 2018 may reap some strategic benefits from taking the lead in forming virtual groups in subsequent years. Among those benefits to be considered are some directly connected with those providers if it is possible to recruit many of them. A virtual group that includes at least 75% of eligible clinicians who practice in HPSAs or rural reporting entities. Virtual groups that qualify as HPSA or rural earn double points on all reported MIPS Improvement Activities, according to CMS.

Virtual group participation may allow reporting on an expanded number of measures, therefore increasing the reliability due to larger amounts of performance data. In addition, it may spread the cost of reporting over a larger number of clinicians.

Forming a virtual group

The steps necessary to establish a virtual group include naming an official among the participants to serve as the official virtual group representative; preparing and signing a formal, written participation agreement; and submitting the election to CMS before Dec. 31 preceding the first year of reporting. Clearly, it is too late to start this process from scratch for performance year 2019. However, it would be strategically prudent for urology practice leaders to initiate discussion now while the difficulty of successful MIPS reporting for 2019 is fresh on the minds of potential members of a new virtual group.

To obtain more details, visit the CMS virtual group web page at bit.ly/virtual-groupinfo. There, you will find a formal agreement template, an example of the CMS application email, and a process fact sheet.
Phase IIb data: Localized prostate Ca agent safe, well tolerated
Sophiris Bio Inc. recently provided an update from its phase IIb study of topsalysin for localized prostate cancer, including top-line safety and biopsy results from the patients who received a second administration of study drug, which appeared to be safe and generally well tolerated. Additional benefit was not observed on targeted biopsy 6 months after re-treatment with a second administration of topsalysin. As previously stated, 27% of patients (10/37) demonstrated a clinical response 6 months following a single administration of topsalysin. Six of the 10 clinical responders experienced complete ablation of their tumor. Based on these results, Sophiris Bio said it is moving forward with plans to propose a single phase III registration trial design using a single administration of topsalysin, which it will discuss with regulatory agencies in the coming months.

FDA alignment reached on phase III trial of hyperoxaluria therapy
Allena Pharmaceuticals, Inc. has reached alignment with the FDA on both the design of URIROX-2, its second pivotal phase III trial of relaxalase in patients with enteric hyperoxaluria, and its strategy to pursue a Biologics License Application submission for relaxalase using the accelerated approval regulatory pathway. Allena’s URIROX program consists of two pivotal phase III clinical trials, URIROX-1 and URIROX-2, which are designed to evaluate the safety and efficacy of relaxalase in patients with enteric hyperoxaluria. URIROX-1 is currently enrolling patients, and Allena initiated URIROX-2 in the fourth quarter of 2018. The primary efficacy endpoint for URIROX-2 is the percent change from baseline in 24-hour urinary oxalate excretion measured during weeks 1-4, the same primary efficacy endpoint as URIROX-1.

Prostate Ca test to be developed on PCR-based platform
Genomic Health, Inc. and BiocartisGroup NV have expanded their exclusive collaboration into the field of urology with the development of an in vitro diagnostic version of the Oncotype DX Genomic Prostate Score (GPS) test on Biocartis’ Idylla platform and potentially additional cancer tests that can be performed locally by laboratory partners and in hospitals around the world. The Idylla Oncotype DX GPS test will be the first urology test to be developed on Biocartis’ fully automated, polymerase chain reaction-based Idylla platform, which offers a unique sample-to-result molecular diagnostics solution.

Positive preliminary phase III data reported for bladder cancer agent
Sesen Bio, Inc. reported positive preliminary efficacy data for the primary endpoint of its ongoing phase III registration trial, the VISTA Trial, of Vicinium for the treatment of patients with high-grade nonmuscle-invasive bladder cancer who have been previously treated with bacillus Calmette-Guérin (BCG) and deemed BCG-unresponsive. The data showed clinically meaningful complete response rates in evaluable carcinoma in situ patients at 3, 6, 9, and 12 months of follow-up in the trial consistent with the data in the completed phase I and phase II clinical trials. The agent continues to be generally well tolerated in treated patients.
Prostate Ca test evaluates genetic predisposition to disease
Stratify Genomics, Inc. has launched Prompt, a test to evaluate a man’s genetic predisposition to prostate cancer and provide knowledge of an individual’s baseline prostate cancer risk. Rather than screening all men solely based on family history, Prompt offers a stable, objective measure, including family history, of lifetime risk of prostate cancer, the company says. Clinicians can focus screening efforts on men who are at greatest risk and better inform patients of their individualized risk. The test, performed with a cheek swab sample, at any age, can help men know their individual risk and may identify high-risk men, according to Stratify Genomics.
For more information, visit www.stratifygenomics.com.

Commercialization agreements reached for three urologic agents
Palette Life Sciences AB (formerly known as Pharmanest AB) has entered into definitive agreements with Nestlé Skin Health to license worldwide commercialization and development rights for Deflux, Solesta, and Barrigel. Palette Life Sciences says it will focus immediately on commercialization activities for Deflux and Solesta, and will begin activities to enable worldwide commercialization of Barrigel. The license can enable future new products intended for management of urologic and gastroenterologic conditions, and protection of adjacent healthy organs and tissue during radiation therapy for cancer. Deflux (dextranomer hyaluronic acid copolymer) is an injectable treatment for vesicoureteral reflux, and Solesta (hyaluronic acid/dextranomer) is an injectable treatment for fecal incontinence. Both are FDA approved. Barrigel is a biodegradable injectable treatment for protection of the rectal wall when treating prostate cancer with radiation. It is approved in Europe and will be further developed for future market introduction in the U.S.
For more information, visit www.palettelifesciences.com.

FDA grants de novo clearance for transcutaneous SUI device
The FDA has granted de novo clearance for Atlantic Therapeutics’ INNOVO therapy device, an externally worn electrical muscle stimulator for the treatment of stress urinary incontinence (SUI) in adult females. INNOVO is the first transcutaneous electrical stimulation continence device to be cleared by the FDA, following results of two randomized controlled trials demonstrating it to be an effective and low-risk device for the treatment of SUI in adult females, according to Atlantic Therapeutics. INNOVO is a wearable device that may be prescribed as a front-line therapy to patients with SUI, or as a second-line therapy to those who have previously failed physical therapy.
For more information, visit www.atlantictherapeutics.com.

DICOM app option available with medical video recorder
MediCapture’s next-generation MVR Pro medical video recorders now come with a revolutionary Digital Imaging and Communications in Medicine (DICOM) app option with new, exclusive features not common to DICOM systems, providing system efficiency, speed, and usability benefits to surgical teams, hospitals, and medical camera manufacturers. The new DICOM Made Easy app introduces native DICOM for extensive editing, saving, and playback. It turns the MVR Pro into a fully compliant DICOM modality—from worklist retrieval to automatic storage to picture archiving and communication systems. It saves recorded images and videos directly to the patient work flow in the DICOM standard, and it comes with over 30 fields for patient and worklist data. The app is the first embedded, completely non-Windows implementation of DICOM. MediCapture says. By using an embedded-based versus a computer-based system, it has streamlined the highly complex way computers process DICOM.
For more information, visit www.medicapture.com.

FDA approves sacral nerve stim ‘smart programmer’ device
The FDA has approved the Medtronic InterStim smart programmer for use with the InterStim system, which provides sacral neuromodulation therapy for the treatment of overactive bladder, non-obstructive urinary retention, and chronic fecal incontinence. The new smart programmer streamlines multiple devices into a single, intuitive, touch screen Samsung mobile device, enables clinicians to personalize each patient’s care, and allows patients to manage their therapy simply and discreetly. Designed to deliver easy, streamlined programming, the smart programmer provides a single, intuitive app-based platform for implant and long-term therapy management. Physicians can instantly check magnetic resonance imaging eligibility, and the smart programmer also provides physicians with insights and access to a detailed, accurate view of the patient’s therapy experience, which may help facilitate constructive patient communications. To help optimize efficacy and tailor treatment based on patient needs, patients are able to adjust their therapy themselves, within clinician-defined limits in seven standard preset programs.
For more information, visit www.medtronic.com.

Online tool tracks opioid prescription, administration
KAMMCO has released a new Opioid/Controlled Substances dashboard for physicians, hospitals, and behavioral health providers participating in the KAMMCO network of health information exchanges. The tool supplements the existing Prescription Drug Monitoring Program currently available in most states. The dashboard utilizes data from the physician-led KAMMCO network of health information exchanges and is available to prescribing providers and their designated delegates. It allows clinicians to identify individuals in their patient population who received at least one prescription/administration of opioids/controlled substances, by facility and date range up to 12 months, and also displays the top five opioid medications prescribed/administered to their patients.
For more information, visit www.kammco.com.

Textbook outlines techniques for vasectomy reversal
“Vasectomy Reversal: Manual of Vasovasostomy and Vasospiepididymostomy” provides a step-by-step illustrated manual of how to prepare for and perform state-of-the-art microsurgical techniques in vasovasostomy. Written by Sheldon H.F. Marks, MD, and published by Springer Nature, the book provides detailed instructions, including master’s techniques, tips and tricks, and protocols for handling various complications. The text also addresses appropriate training, preoperative issues and concerns, intraoperative challenges and complications, and postoperative dilemmas and care.
For more information, visit www.springer.com.

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For more information, visit www.medtronic.com.
What practice-related changes do you anticipate in 2019?

In my case, I'm not really planning any major changes. I'm in my 53rd year of practice right now. I'm comfortable with what I'm doing. I don't have EMR and I don't plan to add it. I don't plan to hire any new staff. The only change I might make is selling my practice if I decide to retire, but I'm not really planning on that.

The variable in that is that my wife is my office manager and she is tired of the business end of things because of all the problems with insurance companies. It takes so much time dealing with explanations, and their mistakes. They lose things. They've written letters telling our patients we no longer accept their insurance, when we do. Then they say, 'Oh, sorry.' It's all just burning her out.

I enjoy practicing because I don't have to deal with the economics of it. It's not like my wife is a 9 to 5 employee who can go home and just forget about the practice's problems. She's my wife, so she has a vested interest in the financial side of the practice from that vantage point.

So if she decides she's ready to hang it up, I'll probably retire in 2019."

Keith Steinbecker, MD / St. Louis

I don't think I'm going to have a lot of changes in 2019.

I'm in a stable group, owned by the hospital. I've been in practice for 17 years and I've been with my hospital for 4 years now. That's been pretty stable and there are no real changes being planned. I'm in a good place with my practice. Our referral base is the same. I always worry about Medicare reimbursement rates changing, so that worries me, but I don't know that I envision any changes there either. It's been pretty stable since I've been here.

Maybe I'm not the right guy to really ask. There's nothing worrying me or bothering me that I would want to change, or that I can see wanting to change. I don't really see anything happening.

I haven't heard that were going to add any new services or any new techniques. There is really nothing planned to go on differently with that.

I think everything's pretty stable from my standpoint right now. I'm hoping that stays that way. I'm kind of happy with the security of all that.”

Keith Steinbecker, MD / St. Louis

Sean Clark, MD / Hillsboro, OR

I think the biggest change is that people in this country are realizing that the most important thing in medicine is to figure out how we get everybody covered, regardless of their ability to pay. And I think we're all going to have to figure out how to adjust to those changes.

That's really beyond any technical or marketing shift. That's the biggest thing on the horizon. I don't know exactly what it will look like, but, hopefully it will cover everyone, regardless of their ability to pay.

It will require a lot of adjustment on the part of practitioners, hospitals—service providers of all kinds. I think that's the biggest thing coming down the pike, maybe not completely in 2019, but it's starting.

That's one thing everybody's really talking about—moving left on single-payer health care, Medicare-for-all, something in universal health care that's not a market-based, Heritage Foundation-type program like Obamacare where we just try to manipulate the market to make sure that people who can't afford health care can still afford it. That's been shown to not really be successful. It's better than nothing, but it hasn't been successful providing health care to everybody, regardless of the ability to pay.

Every industrialized nation provides this to its citizens except us. That's embarrassing. So I think it's going to happen. It will require a lot of work. It's not going to be really fun for me, or others in the industry. It's going to shake things up quite a bit, but it will be better than having patients tell me they can't do what I think they should be doing for their health because they can't afford it.

I know it won't get done this year, but I hope it starts, but that's just my particular bent.”

Barry Rubin, MD / Brooklyn, NY

Companies featured in this issue

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The Department of Surgery at the University of Vermont College of Medicine is seeking a Clinical Practice Physician in the Division of Urology to join the Champlain Valley Physicians Hospital (CVPH) in Plattsburgh, New York. CVPH is a progressive medical center with nine state-of-the-art OR's and Ambulatory Surgery Center. This position offers the unique opportunity to work in a community setting while having an active affiliation with Vermont's only Academic Medical Center; the only ACS verified Level 1 trauma center in the state providing tertiary care to patients from Vermont and Northern NY. Serving the patients from Upstate New York for decades, the local urologic surgery practice recently joined the faculty at the University of Vermont and are now seeking an additional colleague to join the dynamic Urology faculty that span the network hospitals. Specifically, the Division seeks applications from individuals seeking a community Urology practice employment opportunity with a collegial and collaborative setting with University support.

Applicants must be board certified or board eligible and eligible for medical licensure in the state of New York. This is a full-time, 12 month, salaried position.

Plattsburgh is located on the shores of Lake Champlain, near the Adirondack Mountains, Olympic-Lake Placid region, Montreal and Burlington, VT.

The University is especially interested in candidates who can contribute to the diversity and excellence of the academic community through their research, teaching, and/or service. Applicants are requested to include in their cover letter information about how they will further this goal.

The University of Vermont is an Equal Opportunity/Affirmative Action Employer. All qualified applicants will receive consideration for employment without regard to race, color, religion, sex, sexual orientation, gender identity, national origin, disability, protected veteran status, or any other category legally protected by federal or state law. The University encourages applications from all individuals who will contribute to the diversity and excellence of the institution.

Interested individuals should apply online at https://www.uvmjobs.com/postings/31529 (position number 00024781). Inquiries may be directed to Mark Plante, MD, FRCS(C), FACS, Division Chief, via Kathryn Raymond Kathryn.Raymond@uvmhealth.org.
The Tallwood Urology & Kidney Institute is expanding!

Hartford HealthCare
Tallwood Urology & Kidney Institute

The Tallwood Institute is comprised of a world-class Urology and Kidney care team of local and national leaders in their fields. Many of our physicians have advanced sub-specialty training and are backed by a full team of interdisciplinary medical and surgical specialists. The institute is structured around six interdisciplinary disease management teams including urologic oncology, pelvic health and urinary incontinence, stones, men’s health, chronic kidney disease and general urology. The teams meet regularly with the mission of establishing care pathways based on evidence-based medicine, providing education and improving process and quality. As a member of the Tallwood Urology and Kidney Institute, you will be able to participate in any of these teams.

Hartford HealthCare is Connecticut’s most comprehensive healthcare network. Our fully integrated health system includes a tertiary-care teaching hospital, five community hospitals, the most extensive behavioral health services network in Connecticut, a large primary care physician practice group, a regional home care system, an array of senior care services, and a large physical therapy rehabilitation network.

Our hospitals are located in a variety of settings giving you the chance to live in a vibrant town near a city, on the Connecticut shore or in a rural community with easy access to hiking, biking and skiing.

These opportunities for physicians, created by our growth, blend the best aspects of being part of a community-based team while being connected to a system of support.

Physician opportunities include:

- **Generalist with a focus on female urology** to provide office-based care in suburban Central Connecticut and surgical care at The Hospital of Central Connecticut, in New Britain, CT and share call with Charlotte Hungerford Hospital in Torrington, CT

- **Generalist or endo-urologist** to provide office-based care in the suburbs of Hartford and surgical care at Hartford Hospital

- **Generalist or andrology trained urologist** to provide office-based care at the Connecticut shore and surgical care at William W. Backus Hospital in Norwich, CT

All positions have a desirable call schedule.

Send CV and letter of interest to: Clayton Tebbetts at Clayton.Tebbetts@hhchealth.org

Career | Family | Patients | Lifestyle | Everything Matters
The Department of Surgery at the University of Vermont College of Medicine and its affiliated medical centers, the University of Vermont Medical Center and Vermont Children's Hospital, is seeking a Pediatric Urologic Surgeon. The University of Vermont Medical Center and Vermont Children's Hospital, along with the university, offers a full spectrum of pediatric medical and surgical specialties. The institution has a Level III NICU, a fully staffed PICU, and serves as the regional adult and pediatric regional trauma center. The Division of Urology holds a long-standing reputation as a premier urologic surgery practice for the surrounding communities’ pediatric and adult patients with urologic care needs and enjoys an excellent relationship with the Department of Pediatrics. With a highly respected residency training program with a robust compliment of dynamic faculty across the network hospitals, the Division seeks applications from individuals seeking an academic career in a collegial and collaborative setting.

Applicants must be BE/BC in Urology and Pediatric Urology, eligible for licensure in the State of Vermont, and eligible to work in the United States. They must have experience in the teaching of medical students and surgical residents, and the clinical and research activities of an academic division of Pediatric Surgery.

This is a full-time, 12-month salaried faculty appointment in the Clinical Scholar Pathway at the rank of Assistant or Associate Professor and carries with it attending staff privileges at University of Vermont Medical Center, a level 1 trauma center that serves as a tertiary care facility serving Vermont and northern New York State. Salary is competitive and commensurate with ability and experience.

Burlington, is located on the eastern shore of Lake Champlain between the Adirondack and Green Mountains, is consistently ranked one of the top places to live and work. Numerous recreational and cultural opportunities across four seasons are available, with Vermont considered to be an outstanding environment to practice medicine.

The University is especially interested in candidates who can contribute to the diversity and excellence of the academic community through their research, teaching, and/or service. Applicants are requested to include in their cover letter information about how they will further this goal.

The University of Vermont is an Equal Opportunity/Affirmative Action Employer. Applications from women, veterans, individuals with disabilities and people from diverse racial, ethnic, and cultural backgrounds are encouraged.

Interested individuals should apply online at https://www.uvmjobs.com/postings/30302 (position number 00024730). Inquiries may be directed to Mark Plante, MD, FRCS(C), FACS, Division Chief, via Kathryn Raymond Kathryn.Raymond@uvmhealth.org.
Organized urology has varied agenda for 2019

Priorities include USPSTF, Stark legislation reform

As the new Congress, with the House of Representatives now controlled by Democrats, opens up shop this month, physicians—urologists included—will be looking for action on several key initiatives important to their practices and patients.

But the action doesn’t stop on Capitol Hill as the regulatory agencies, including the Department of Health and Human Services (HHS) and the Centers for Medicare & Medicaid Services (CMS), are in the midst of making important decisions that could have lasting impact on medicine and physicians’ practices.

Push for USPSTF reform bill continues

On Capitol Hill, urology interests continue their fight for patient access to, and Medicare coverage of, PSA screening. That effort has led to a drive to reform the U.S. Preventive Services Task Force, whose 2012 recommendations resulted in a sharp decline in screening rates, according to one study (Nat Rev Urol 2017; 14: 26–37).

Thus, the major urology organizations continue to seek enactment of legislation that would reform the USPSTF, giving specialists increased influence on task force recommendations. Chief sponsor of that legislation was Rep. Marsha Blackburn (R-TN), who was elected to the Senate in November.

“We’re now searching for a new sponsor in the House of Representatives,” said Mark Edney, MD, president of the American Association of Clinical Urologists (AACU). “We expect to have Sen. Blackburn’s continued support.”

USPSTF reform is also a priority for the AUA and LUGPA, both of which have lobbied extensively to win the bill’s passage.

Dr. Edney also said AACU strongly supports legislation introduced last February to require a study by the National Academy of Medicine on the use of genetic and genomic testing to improve health care.

The bill, if reintroduced in 2019, would direct HHS to enter into an agreement with the National Academy of Medicine to recommend how the federal government can support the use of genetic and genomic testing to allow for better delivery of precision medicine.

“AACU supports the use of tissue-based molecular testing as a component of risk stratification in prostate cancer treatment decision-making,” a statement by the AACU explains.

“We are seeking to move to a value-based care model where we reward value over volume, and that is prohibited by Stark [legislation], the language of which is inconsistent with the shift to value-based care.”

DEEPAK A. KAPOOR, MD

Another major congressional initiative for urology is reform of the Stark antikickback laws, enacted some 30 years ago, which Dr. Edney and others contend now stand in the way of the drive toward value-based care. Thus, there is strong support within urology for the Medicare Care Coordination Improvement Act, introduced last year by Sens. Rob Portman (R-OH) and Michael Bennet (D-CO), which would give the HHS secretary the option to allow exceptions for alternative payment models, an important component of value-based care.

“We’re seeking to update and reform the law to accurately reflect the health care delivery system as it is today,” said Deepak A. Kapoor, MD, chairman of health policy at LUGPA.

“Stark is a two-edged sword,” he contended. “It prevents you from distributing money based on volume or value of service. But, we are seeking to move to a value-based care model where we reward value over volume, and that is prohibited by Stark, the language of which is inconsistent with the shift to value-based care.”

‘Breathtaking changes’ in payment policies

On the regulatory front, Dr. Kapoor said that under the Trump administration, CMS is “making breathtaking changes,” particularly with respect to payment policies.

“Independent physician practices received a major victory with the the expansion of site neutrality, which substantially leveled the playing field and allows independent physicians to compete,” he said. However, he said LUGPA “will continue our emphasis on expanding the notion that it is inappropriate for the patient to pay more for the same service simply because of the address where the service is provided. Medicare should pay the same amount regardless of where the service is provided.”

Meanwhile, the AUA and other members of the Alliance of Specialty Medicine wrote to HHS to express concerns over its proposed 340B drug pricing plan.

HHS is seeking to create a new payment model called the International Pricing Index, under which certain drugs like cancer treatments administered by doctors would be reimbursed at rates similar to those charged by European countries instead of using the current rate structure.

Physician participation will be mandatory for physicians in randomly selected geographic areas with a goal of capturing half of Medicare’s Part B spending. The objective is to reduce Medicare spending on included drugs by 30%.

While LUGPA was not a signatory to the Alliance’s letter to HHS, Dr. Kapoor said the organization agrees with its intent.

“Rather than physicians acquiring Part B drugs directly, they will put mandatory for-profit middlemen in place who can control access to the drugs,” he said.

“They are going to institute pricing models that could devastate the development of new drugs,” he warned.

The Alliance, in its letter, objected to participation in the demonstration program being mandatory and expressed strong concerns about the use of middleman-brokers from whom physicians will obtain the drugs.

“They are incentivized not to use the most appropriate therapy, but the cheaper therapy,” Dr. Kapoor warned. “You need to have both sides of the equation. You can’t just be focused on cost. You also need to focus on the needs of the patient. This policy as written could be extremely disruptive. We are going to be working closely with other stakeholders to make sure CMS hears these concerns.”

FAST FACTS

Health policy issues on organized urology’s radar in 2019 include:

- legislation to reform the U.S. Preventive Services Task Force
- a bill by the National Academy of Medicine on the use of genetic and genomic testing to improve health care
- reform of Stark antikickback laws
Positional injuries pose medicolegal risks

Assess and discuss risk factors for injury preoperatively

Suppose you are a patient waking up from a robot-assisted laparoscopic prostatectomy (RALP). You were counseled ahead of time by your surgeon about what to expect regarding pain, recovery time, and urinary symptoms, among others. As the effects of anesthesia wear off, you note significant discomfort in your shoulders and arms. Ultimately, a diagnosis of compartment syndrome is made and you require an additional surgery to relieve this.

However, there is residual damage and you are left with a deficit in use of your left arm and hand. You might ask: How did this happen; the surgeon was nowhere near my arms and shoulders? How could prostate surgery leave me unable to use my left arm fully?

This is just one example of many past and pending malpractice actions across the country that center around the positioning of patients during surgery.

In another case, a male patient had a RALP that took over 8 hours and he was in steep Trendelenburg the whole time. The patient developed compartment syndrome in the right arm and shoulder with residual deficits.

In a third case, a patient underwent a radical retropubic prostatectomy lasting just under 5 hours. The patient woke up with extreme back pain. Imaging and nerve studies confirmed damage to the back and pelvic areas. The patient was rendered disabled and unable to work.

In a fourth case, a female patient underwent nephrectomy in the lateral decubitus position and developed significant brachial plexus injury from improper placement of the chest pad.

Intraoperative positioning injuries can include nerve injuries, soft-tissue pressure injuries, compartment syndromes, and ocular deficits (bit.ly/patientpositioning). The incidence of these injuries as a whole is not well documented, as literature mostly focuses on case studies, retrospective reviews, or billing and claims data (bit.ly/patientpositioning). However, a recent paper found that robot-assisted surgeries had a 6.6% injury rate, suggesting that this type of surgery may incur further risk (bit.ly/patientpositionstudy).

Good documentation, expert review needed for defense

A patient’s success on a claim of injury based on intraoperative positioning would likely be based on a negligence theory, or potentially a lack of informed consent theory. A patient’s success on a claim of injury based on intraoperative positioning would likely be based on a negligence theory, or potentially a lack of informed consent theory. A patient’s success on a claim of injury based on intraoperative positioning would likely be based on a negligence theory, or potentially a lack of informed consent theory. A patient’s success on a claim of injury based on intraoperative positioning would likely be based on a negligence theory, or potentially a lack of informed consent theory. A patient’s success on a claim of injury based on intraoperative positioning would likely be based on a negligence theory, or potentially a lack of informed consent theory.

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In the event that a case is elective and not time sensitive, a patient’s condition may be able to be optimized in the interim to avoid positional injuries even further. Efforts at improving nutritional status, increasing diabetes regimen compliance, and idealizing weight can be good preventive aids and motivational factors for patients in achieving the surgery they desire (bit.ly/patientpositionstudy).

One final case for thought: A patient was consented for a prostatectomy and told it would take approximately 2-3 hours to complete. The surgeon does not disclose that he will be doing the procedure robotically, and with a proctor present due to his level of inexperience. The surgery actually lasts close to 8 hours and afterwards the patient’s hands and arms are swollen and bruised, with numbness and tingling.

The patient sues the surgeon, the anesthesiologist, and the nursing staff in the OR for various failures in care and treatment. Ultimately, the plaintiff-patient failed to prove causation at trial, but the 6 years of legal proceedings, trial, and appeals undeniably take a toll on all involved.

Patient positioning in the operating room is everyone’s responsibility. The surgeon, anesthesiologist, and nurses all have a duty to contribute to establishing the optimal surgical exposure in a position that protects the patient’s airway, anatomic structures, and hemodynamic stability as much as possible. Documentation of risk factors in the record and mitigation of any in advance can help set expectations for the patient. Use of best practices and conscientious documentation are always desirable in crafting a meritorious defense should the case become a legal action.
The UroLift System procedure is FDA-cleared for the treatment of symptoms due to urinary outflow obstruction secondary to BPH, including lateral and median lobe hyperplasia, in men 45 years of age or older. Results and patient experience may vary. Most common adverse events reported include hematuria, dysuria, micturition urgency, pelvic pain, and urge incontinence. Most symptoms were mild to moderate in severity and resolved within 2 to 4 weeks after the procedure. Consult the Instructions for Use (IFU) for more information.

*Dr. Walter is UroLift faculty and a paid consultant for NeoTract Teleflex

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Managing Patients with Cystinuria

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FILLING THE GAP IN BPH CARE
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**Introduction**

In August 2018 a panel was convened of experienced providers of the Prostatic Urethral Lift (PUL) using the UroLift® System for the treatment of Benign Prostatic Hyperplasia (BPH). Claus G. Roehrborn MD, Chair of Urology, UT Southwestern Medical Center (UTSW), presided over the panel to explore both the current status of the UroLift System within the standard of care for BPH and the broader issue of improving the care pathway for BPH.

The UroLift System for BPH now has been clinically studied for over 12 years, which is chronicled in over 25 peer-reviewed publications, including 2 randomized multicenter studies, five year durability data and 7 open label studies. Results across these numerous studies in different clinical settings, healthcare systems, and patient demographics have consistently shown rapid and durable relief from lower urinary tract symptoms (LUTS) and a unique preservation of both erectile and ejaculatory function. In May 2018, the AUA updated its BPH Guidelines, which include a recommendation that urologists should consider the Prostatic Urethral Lift (PUL) for the treatment of certain men with LUTS presumed secondary to BPH.

**L.I.F.T. Study 5-year Durability**

The Prostatic Urethral Lift using the UroLift System is currently the only BPH procedure that does not require thermal energy or removal of prostate tissue. Small transprostatic implants are deployed within the prostate to mechanically open the prostatic fossa, rather than relying on an extended healing response to achieve deobstruction. For this reason, post-operative urinary catheterization requirement has been the lowest reported for the leading BPH procedures. In a clinical study, approximately 20% patients require a post-operative catheter for less than a day on average which contrasts to thermal ablation alternatives that can require catheters for over 3 days on average in approximately 90% of patients.[Shore et al., McVary et al.] Clinical data has shown average return to preoperative activity of 5 days with under 3 days of work missed on average, the fastest recovery reported for any BPH procedure.[Shore] Significant improvement in LUTS has been proven by 2 weeks with mild to moderate adverse effects typically resolving within 2-4 weeks.[Roehrborn 2013] Five year data has shown durability of symptomatic, flow and quality of life improvements with an average surgical retreatment rate of 2% to 3% per year.[Roehrborn 2017] The Prostatic Urethral Lift is the only BPH procedure that has been shown to not induce new onset, sustained erectile or ejaculatory dysfunction.[McVary, JSM 2014; McVary, JSM 2016]
Today’s BPH Care Pathway

**DR. ROEHRBORN:** Traditionally, we’ve managed patients who have LUTS presumed secondary to BPH (going forward called in short BPH) with watchful waiting, medical therapy, less invasive procedures, and myriad surgical procedures. Let’s touch upon each and look for areas we might find improvement.

**Watchful Waiting:**
Is this an active part of our practices?

**DR. ROEHRBORN:** With as many as 35% men on watchful waiting, is this active management or is it basically passing the patient back to the primary care doctor?

**DR. GANGE:** I actually think it’s a misnomer. I think we’re not watching these patients very carefully at all. Many such men receive a diagnosis of BPH by their primary care physician (PCPs) or urologist, but decline intervention and then don’t return for the suggested follow up care—they may still be labeled as Watchful Waiting. We know from other specialties that men will often wait as long as possible to seek and receive health care. Meanwhile we have come to appreciate that delaying appropriate BPH care can lead to either progression of LUTS and associated signs and symptoms, or to detrusor deterioration.

**DR. WALTER:** My experience in general is that by the time a BPH patient reaches our urology practices, his disease process may already be fairly advanced, and he may require more active management.

**DR. ROEHRBORN:** There are a couple of papers out there suggesting lifestyle advice and fluid management are efficacious in managing symptoms, but it’s difficult to go from studies that are done with a specific purpose to the real world daily practice. This intense counselling during the visit may take significant time.

**DR. WALTER:** Certainly if a brief medical history shows that the patient has a high daily fluid consumption or is consuming several pots of coffee each day, it’s important to recognize and discuss this. If not well counseled on behavioral strategies, patient outcomes from medical or interventional therapy can be compromised if that patient is habitually irritating his bladder excessively.

**Medical Therapy:**
What have we learned over the years?

**Recent Focus on Concerns**

**DR. ROEHRBORN:** In the 1990’s, therapeutic targets were identified and lots of BPH drugs were developed. Numerous large scale trials showed the drugs to be safe and effective. But now with 20 plus years of medical management, we see the literature focus more on the adverse effects that have come to light: bothersome disturbance of ejaculatory function and libido, floppy iris syndrome, even depression, suicidal tendencies and increased risk of stroke and dementia.  

What role does this information play in the choice of medical management, the duration of medical management or the avoidance of medical management for that matter?

**DR. GANGE:** Prior to the 1990s, TURP was “King” and was the most commonly performed surgery in the US. Drugs displaced TURP as the go-to approach to BPH management. Urologists and most PCPs are already aware of medication side effects such as dizziness, hypotension, asthenia, ejaculatory dysfunction and intraoperative floppy iris syndrome or IFIS with alpha blockers, and impaired libido and erectile dysfunction (and ejaculatory issues) with 5-ARIs. PDE-5 inhibition is safe and has some efficacy, but it is not in widespread use for BPH management. Taking the proverbial 30,000 feet view, I think one could ask if all of this is really worth a 5–6 point IPSS reduction.

**DR. EURE:** I think a big part of our role as the urologist is educating the patients, and part of that education is the adverse side effects of any therapeutic option. My group was a site for a lot of the SARI research and I really have curtailed my use of these drugs, especially with men who are still sexually active and want to avoid those side effects. We might think this is only younger men, but I have plenty of older patients for whom preserving sexual function is very important. It’s part of my education process with them and that has changed how I use that class of drugs.

**DR. MUELLER:** Regarding alpha blockers, I tend to utilize silodosin to the greatest extent possible because I find it very effective. That being said, it also has the highest incidence of retrograde ejaculation likely due to its stronger selectivity. If patient satisfaction is impacted by the sexual dysfunction, and a fair number are, I will shift to Tamsulosin or Alfuzosin and initiate the discussion on minimally invasive options. With the UroLift System, I personally see this option as a direct choice versus medication, and of the 300 or so men who I have treated with the UroLift System, I’d say that more men are selecting intervention over continued medical therapy as an earlier treatment option.

**DR. ROEHRBORN:** I do think in this case Alfuzosin is another option, since it has been shown to have less effect on ejaculatory function, and fewer cardiovascular issues as well. Though I do agree that minimally invasive treatment is an appropriate early option as well.

**DR. GANGE:** I’d like to take a moment to emphasize the growing evidence suggesting significant emerging BPH drug side effects. In the case of alpha blockers, there are now reports of higher risk of stroke and dementia. Additionally, reports regarding 5-ARI side effects point to alterations in glucose and lipid metabolism, as well as depression and self-harm. These are certainly complications I want nothing to do with, and even though, as you point out Claus, these are population studies, not randomized controlled studies, the evidence is certainly concerning. Although in some cases the jury is still out, I do feel compelled to mention these potential harms to my patients, and drug side effect concerns become a compelling reason that patients might elect low risk procedural intervention like PUL with the UroLift System.

**Effects of Poor Compliance**

**DR. ROEHRBORN:** Another important aspect to medical therapy is the low level of consistent patient compliance—this has been shown in a number of population studies. This is the patient that presents with symptoms; we prescribe medication and he takes it, but then doesn’t refill. We’ve treated him episodically, but have we served him well? Over time, will noncompliant patients potentially undergo irreversible bladder damage after which even a surgical approach may not be effective?

**DR. GANGE:** This is an excellent point. One way to try to address this is to see my new BPH patients back relatively soon; not 6 months or a year, but at 4–6 weeks. This way I can reinforce the need for compliance and importantly, address adverse effects that might compel him to stop taking the medication. I find this habit of more timely follow up can capture a patient who might otherwise walk off undertreated, and this can also allow for earlier anatomical assessment of men who may do better with intervention.
“Should [we] be asking ourselves not, ‘What drug should I ADD to this man’s daily intake?’ but instead, ‘Do I have a good option that can REMOVE a medication from this patient’s drug regimen and free him from current or future side effects?’”

DR. EURE: I do think in general the trend over the past 20 years of medical management has led to intervening on patients who are further down the disease process with larger prostates and maybe symptoms that cannot be sufficiently addressed even with more invasive procedures. Preservation of bladder health needs to be more of a focus.

DR. WALTER: I think I might have a unique perspective here. I personally was dealing with BPH and had no desire to initiate a lifelong journey of medication usage and dealing with side effects, and the common later issues of drug to drug interaction. I elected to undergo a UroLift System treatment over two years ago and really have been delighted by the therapeutic effect, overall experience and importantly, not being dependent on long term medication. I wonder if we, as a specialty, should be asking ourselves not, “What drug should I add to this man’s daily intake?” but instead, “Do I have a good option that can REMOVE a medication from this patient’s drug regimen and free him from current or future side effects?” I feel that I absolutely made the right decision, especially in light of recent evidence showing that when alpha blockers such as Tamsulosin can increase the risk of dementia or stroke (1,2) and that 5-ARI such as finasteride and Dutasteride can increase the risk of dementia, suicidality, and even certain metabolic derangements (3,4). As urologists, we have the unique opportunity to deprescribe, decreasing the polypharmacy debacle rather than exacerbating it.

Improving BPH Care

AUA BPH Guidelines 2018: Prostate imaging to determine optimal care

DR. ROERHORN: The newly-released AUA Guidelines now recommend imaging the prostate prior to prostate surgery. Let me explain why I advocated for this on the panel with an example. I do an MRI for elevated PSA and see a 100 gram prostate with significant intravesical protrusion. Prior to imaging, I was very close to sending this patient off with an alpha blocker, and we know that patient is unlikely to do well on an alpha blocker. In fact, thinking back on the MTOPS study, I wonder if imaging were a standard work-up, might we have been able to actually delineate responders and non-responders based on anatomy. What are your opinions of imaging the prostate earlier in the treatment paradigm?

DR. WALTER: I have a strong opinion on this. I’ve always had a very low threshold to perform diagnostic cystoscopy. If I receive a referral from a primary care physician and I just place that patient on an alpha blocker or a 5ARI, what have I done to distinguish my skillset from that of a primary care physician or even a nurse practitioner for that matter? As urologists, we’re surgeons, we have specialized skills, we can identify problems better, so why don’t we? I want to know the patient’s individual prostate anatomy, the size and shape of his prostate, and whether there is an obstructing median lobe. I can perform a flexible cystoscopy in about two minutes in the office. It’s very well tolerated; and it gives significant useful information. It’s also a very helpful educational tool for the patient. He can view his personal prostate anatomy. He can see what I’m talking about when I tell him he appears obstructed. Importantly, I can educate him about his bladder health by demonstrating any trabeculations, cells, or diverticular formation.

DR. GANGE: The Committee responsible for creating the 2018 BPH Guidelines have, in my opinion, potentially advanced the science and improved the quality of Urological care for these patients by recognizing the value of anatomical assessment in BPH care. As you mentioned, Peter, this really allows for more precise and customized BPH intervention.

DR. EURE: I agree that it helps you better advise a patient as to what their treatment options are and to what extent what option may work better than another. If I can see that my patient is anatomically a good candidate for a minimally invasive option like the UroLift System and maybe not the most likely to respond to medications, I’m going to be better informed when discussing treatment options with my patient. And of course if I see a 150 g prostate, we are going to be discussing more invasive approaches.

DR. ROERHORN: Let’s discuss the use of cystoscopy to perhaps understand how far along the disease process a patient is; by this I mean recording trabeculation, the cells that develop, the diverticula. I am trying myself to code bladder trabeculation in the patient’s record. I’m trying to grade it in my own mind and record it. I think this may be the next frontier, where we need to be better in quantitating secondary changes that are our signs of progression of bladder decompensation. Do you document it or describe physical bladder changes in some quantitative way?

DR. WALTER: I use very general terms, I’ll say mildly, moderately, severely. But I do feel a PI-RADS type rating system with graphical metrics would really help standardize this important information. I think we likely all agree that tracking bladder decay must be important.

DR. SUSSMAN: I do wish there were more extensive data on bladder decompensation; we have never defined when a patient truly passes the “point of no return” and will not respond adequately to BPH procedures. Recent population studies have shown that 20% to 40% men are on a BPH medication within five years of what we call definitive surgery, TURP. I believe that points to us intervening too late; it points to addressing prostate obstruction only after a level of irreversible bladder damage. We should be intervening earlier on these men to better preserve their...
future health. I also encourage performing a trus/cysto (i.e. UroCuff™ or urodynamics as tools to establish obstruction) to confirm proper patient selection and determine which patients should consider the UroLift System and stop medications.

**Earlier Intervention to preserve future health**

**DR. ROEHRBORN:** A study at the VA comparing watchful waiting to TURP showed that patients who were originally on watchful waiting and then crossed over due to worsening of symptoms and got a TURP had poorer outcomes than those who underwent TURP at randomization. It’s as though a window of efficiency or effectiveness was missed. *Is that a fear that you all have, that sometimes we’re coming in too late with our surgical treatment?*

**DR. EURE:** I think this is a very important topic and concept and I have changed my practice in recent years. The traditional treatment distribution within the BPH population is alarming, where 97% of men with moderate to severe symptoms are either on watchful waiting or medical therapy, with less than 3% undergoing intervention.4 We’ve tried to shift that curve, and I would say our residents really look at it the same way or try to change that concept in their patient’s minds. With less invasive options, we can now move that treatment paradigm earlier in the disease process. I believe the patient gets the benefit of the positive outcomes longer, avoids bladder deterioration and many of the long-term side effects. Over the years we’ve developed less and less invasive options, and this is where the UroLift System comes in; it has less side effects and less exposure to the things patients fear. It is helping us shift the curve to better care, I believe, and most of our patients are highly satisfied with the results and the rapid relief delivered by the UroLift System procedure.

**DR. WALTER:** I agree with Gregg. It’s been a series of shifting paradigms. In the early years of our careers, TURP was the main solution. Then, we tended to place nearly everyone on medications. Now, we have a truly minimally invasive option that works better than medication, avoids the potentially toxic side effects of medication, and avoids the risks of invasive surgery. In my practice the UroLift System has been such a valuable addition, filling that gap in the treatment paradigm. Now the paradigm has shifted from a choice between medication or surgery, to a choice between medication or the UroLift System. If neither is appropriate, we can still of course offer more invasive surgery.

**DR. GANGE:** While we lack longitudinal clinical studies to support the need for earlier intervention to prevent detrusor failure, I came across a paper recently that nicely describes the cascade from BOO causing “mechanical stretch stress” which activates mechanosen-sitive cells in the bladder wall leading to alterations in gene expres-sion and protein synthesis, affecting bladder wall thickness and contractility (Mirone, *Eur Urol* 2007; 51: 57–66). This feels like a process we should try to interrupt.

**DR. SUSSMAN:** The idea of intervening earlier is not a new one, but to be honest, we haven’t had an option that many patients would really elect earlier in disease progression. If a patient is looking at new sexual dysfunction, or extended catheterization and many weeks of difficulty before experiencing relief, this is simply not going to change the paradigm; they won’t elect it. The key, in my opinion, to the UroLift System is that it is now a tool we can employ to shift the paradigm, and deliver better care.

**DR. MUELLER:** This is one of the most salient points about the UroLift System. All these other points are very important, but the UroLift System just works better. Since we have tracked our IPSS Scores, we are able to compare symptoms between active surveillance, medicines and proposed procedures. Due to the UroLift System’s near 2X symptoms improvement over medicines, along with its strong safety profile, I can say with confidence that this is a superior option to its BPH alternatives. That’s very, very enticing to patients. This level of confidence far exceeds the alternatives available to LUTS patients. And the significance of this option reaches the largest proportion of my LUTS patients. Moreover, it allows us as practitioners to be proactive in the care of our patient’s symptoms and advocate for their bladder health.

**Redefining “Minimally Invasive”**

**DR. ROEHRBORN:** I see these paradigm shifts as a pendulum swings, from TURP to medications, and back. I feel we need to figure out a way to make the pendulum swing more towards the middle, where everything has its place. Earlier treatment with minimally invasive treatments must have attraction to the patient, otherwise they wouldn’t choose it. Taking a tablet still to the patient feels like relatively harmless and they can always stop it otherwise they wouldn’t choose it. Taking a tablet still to the patient feels like relatively harmless and they can always stop it and it’s not a major expense up front. **So what does it take to make a minimally invasive treatment palatable to the patient?**

**DR. EURE:** I think one of the biggest appeals for patients is no sexual side effects. Not having retrograde ejaculation is important to them. In the past I wouldn’t have thought that was as big a deal or as a significant deterrent, but when that knowledge is out there, patients are coming out of the woodwork seeking the
Many of my patients ask me, “When can I go back to work?” I tell them with the UroLift System, even though the studies suggest it is 3 to 5 days to normal activities, I’m fairly liberal about it and I let them go back right away. And to me, that’s oftentimes a very important point to them.

DR. MUELLER: The low chance that they’ll have to have a catheter afterwards is huge. Again, for us having a catheter in a patient for a day or two is not a big deal, but for many patients it certainly is. The quick recovery and the minimal side effect profile makes it, I think, much more appealing for patients to think about the intervention option versus taking another pill.

DR. ROEHRBORN: Many of my patients ask me, “When can I go back to work?” I tell them with the UroLift System, even though the studies suggest it is 3 to 5 days to normal activities, I’m fairly liberal about it and I let them go back right away. And to me, that’s oftentimes a very important point to them.

DR. SUSSMAN: The key to earlier treatment is an option that men will elect, and there are definitely criteria to that option. I think we now have a new definition for “minimally invasive BPH”. I’d state these criteria as: < 2 hour office visit; able to avoid a catheter; no risk to sexual function; and rapid recovery and relief within days.

DR. ROEHRBORN: Where do each of you generally conduct your UroLift System procedures and under which anesthesia?

DR. GANGE: I do office almost exclusively and just topical anesthesia, adding a short acting benzodiazepine for men who request it or who seem to struggle a bit with flexible cysto and TRUS. Of the nearly 500 UroLift System procedures I’ve performed, under 2% have been conducted in an operating room, and those were unique situations.

DR. EURE: I have done many in the office, but we have an excellent surgery center that is connected to my office. I have great support and anesthesia assistance there, so I use the outpatient surgery center.

DR. MUELLER: All of my cases have been done in the office and I would say 90% of them are done with propofol, with sedation. I’m trying to do more locals, but I think that my patient populous expects sedation. In New Jersey, we have the ability to do so in the office.

DR. WALTER: We perform 100% of our UroLift System cases in the office setting. About 75% have been performed under pure topical local anesthesia like Steve does. In the other 25% we have utilized IV propofol. We’ve recently begun to offer nitrous oxide, not just for UroLift System procedure cases, but for other procedures as well. There are plenty of dental procedures that can be done with just Novocain, but to maximize the patient experience dentists employ nitrous oxide. I think there is much we can learn about optimal office treatment from that specialty as we strive to offer the premier patient experience.

Treating the Obstructive Median Lobe

DR. ROEHRBORN: A new indication for the UroLift System is for the obstructive median lobe. Gregg, you participated in the MedLift study. Please share a bit about your experience in the trial and also in your practice.

DR. EURE: One thing I learned, the significant middle lobe is less common than what you would think. We really had a hard time finding patients with the kind of obstructive middle lobe, that when you look in was really the main cause of their obstruction. The estimate is maybe 15% of BPH patients have some type of middle lobe obstruction, but we found that really only about 5% have an obstructive middle lobe requiring treatment. I had a hard time recruiting patients, finally did get five together and my results pretty much matched the outcome of the trial. They actually did well, even better than previous-reported trials, and part of that may have been because you really significantly deobstruct by mechanically moving more tissue out of the way. Another reason for the greater effectiveness may be that all of the investigators had a significant amount of experience doing the UroLift System procedure. It is interesting that the LiFT study and most of the publications detail the results of everyone’s first several procedures.

DR. MUELLER: I’ve started treating obstructive median lobes with the expected good results. I will say it does require a proficiency with the technique before attempting. The hardest part of the UroLift System procedure is working close to, but not too close to, the bladder neck. Because the middle lobe is, by definition, at the bladder neck, this requires a good feel for where you are when you deploy. Having said that, I haven’t had to remove any misplaced implants and outcomes have been impressive.

DR. ROEHRBORN: A question I have is when you are manipulating the middle lobe, are you ever just itching to take the resectoscope and resect that intravesical lobe?

DR. EURE: Of course. Though for me it would be a GreenLight Laser. What keeps me from that is that this patient probably would not have elected treatment if it were a more invasive option. His objectives align with this new minimally invasive value proposition that the UroLift System uniquely holds. If that were not the case, then yes, vaporizing or resecting the median lobe is clearly effective at addressing the obstruction, as long as the safety profile is also acceptable.

DR. GANGE: We learned from the LiFT screening population that these obstructive middle lobes are uncommon (accounting for 5% in that group). I’ve thus far chosen limited middle lobe resections for these patients and have been impressed with the degree of improvement and better side effect profile experienced compared to formal TURP. Thanks to the pioneering work of Peter Chinn, and then Gregg and the other MedLift investigators I’m currently making plans to treat my first middle lobe patients with the UroLift System.

Concluding Remarks

DR. ROEHRBORN: In concluding this roundtable, here are key takeaway messages:

- While medical therapy is the dominant treatment in BPH, we acknowledge that there is growing evidence for potential side effects, some of which are somewhat alarming, and we acknowledge that poor compliance can lead to insufficient treatment. For these men, a BPH procedure will likely be important in preserving their future health and bladder condition.
The new BPH Guidelines encourage us to use more imaging, to use anatomical information in establishing the best treatment path. We can use this to evaluate the prostate size and shape to determine the potential utility of medication or weigh the different interventional options, and also to evaluate the condition of the detrusor.

Perhaps with imaging data more available we will, in the future, be able to determine treatment needs based on condition of the bladder, rather than simply symptoms and bother. A provocative thought is whether symptoms and bother might be too far down the disease progression to determine treatment, and imaging might lead us to prevent the progression.

Instinctively we know that treating obstruction prior to irreversible bladder decay is important, and we are unanimous in feeling that the Prostatic Urethral Lift using the UroLift System gives us a unique option to facilitate treating BPH earlier. This is because it holds key features that patients desire, namely, absence of new onset, sustained erectile or ejaculatory dysfunctions, office-based, minimal anesthesia, quick recovery, and also very important, no catheter.

Although the prevalence of patients who have an obstructive median lobe is limited, the number of patients previously falling out of the treatment care pathway for the UroLift® System has been significant.

Now, patients who have an obstructive median lobe and those as young as 45 are eligible to receive treatment with the UroLift System for their BPH symptoms.

In the MedLift Study, the UroLift System demonstrated a 55.1% improvement in patient symptoms, while preserving sexual function at 12 months. Improvements were observed across all patients regardless of median lobe severity as measured by intravesical prostatic protrusion (IPP).

The UroLift System was evaluated in a post-market study and was found to deliver a high level of physician satisfaction regardless if the patient had an obstructive median lobe or not.

Most urologists reported that there was a learning curve with treating an obstructive median lobe that should be considered and that one additional implant is typically required for median lobe treatment.

Overall physician satisfaction was very high because urologists could see an immediate effect with deobstructing the prostatic urethra and rapid relief in patient symptoms.

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5. Shore, Can J Urol 2014 Local Study
Most common adverse events reported include hematuria, dysuria, micturition urgency, pelvic pain, and urge incontinence. Most symptoms were mild to moderate in severity and resolved within two to four weeks after the procedure.

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1. No instances of new, sustained erectile or ejaculatory dysfunction McVary, J Sex Med 2014

For more information, visit www.UroLift.com/physicians/results