UroGen Announces Data that Shows In-Office Nephrostomy Tube Administration of Jelmyto® is Efficient for Doctors and Well Tolerated by Patients

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--Investigator's Retrospective Analysis Published in the Journal of Urology Provides Protocol for Antegrade Administration of Jelmyto, the only Non-Surgical, Kidney-Sparing Treatment for Adults with Low Grade Upper Tract Urothelial Cancer--

PRINCETON, N.J.--(BUSINESS WIRE)--Feb. 10, 2022-- UroGen Pharma Ltd. (Nasdaq: URGN), a biotech company dedicated to creating novel solutions that treat urothelial and specialty cancers, today announced the first published report of real-world experience utilizing the antegrade approach for Jelmyto® (mitomycin) for pyelocalyceal solution administration in the *Journal of Urology* online on February 7, 2022. This report provides a stepwise treatment approach to low-grade Upper Tract Urothelial Cancer (LG UTUC) from initial ureteroscopy to nephrostomy placement, Jelmyto administration, and eventual nephrostomy removal.

"While Jelmyto is approved for both retrograde and antegrade instillation, the instructions for administration address retrograde instillation, and this is the first time that data on antegrade instillation has been documented in a clinical setting for this chemoablative therapy," says Katie Murray, DO, Division of Urology, Department of Surgery, University of Missouri School of Medicine, Columbia, MO. "This report showed that antegrade instillation provided a well-tolerated and effective method of Jelmyto administration. In our experience we did not see a negative impact on patient comfort. Of note, our experience with antegrade administration in this analysis suggests that this approach, which minimizes manipulation of the ureter during instillation, may help protect against stricture formation which has been associated with repetitive instrumentation of the upper urinary tract. Given the potential benefits of antegrade versus retrograde administration of Jelmyto, we now have a replicable protocol to follow for antegrade administration using a nephrostomy tube."

In both retrograde and antegrade approaches, Jelmyto can be administered as an outpatient procedure in the clinic. Retrograde administration requires administration by a physician via a ureteral catheter, requiring fluoroscopic guidance. Antegrade administration may be performed by trained nursing professionals under clean rather than sterile conditions and does not require fluoroscopy after a nephrostogram confirms placement at the first instillation.

"Choosing the optimal treatment modality for administration of Jelmyto is very important and can have significant implications for successful treatment and recovery," said Mark Schoenberg, MD, Chief Medical Officer, UroGen. "Dr. Murray and her colleagues offer practical guidance for antegrade administration of Jelmyto, which can help reduce some of the complexity stakeholders may experience using retrograde administration."

About the Study

This single-center retrospective study reports the investigator's technique for antegrade administration along with early outcomes from a cohort of eight patients who have undergone treatment with Jelmyto via nephrostomy tube. All patients underwent follow-up ureteroscopy with complete response in four patients. Three patients reported five adverse events. One patient had two grade-one adverse events (hematuria and fatigue); one patient had a grade-two adverse event (rash requiring oral medication, requiring one week delay of treatment); and one patient had a grade-one adverse event (a palmar rash) and a grade-three adverse event (ureteral stricture). The ureteral stricture was found in the mid-ureter at follow up ureteroscopy and required laser incision. There were no other delays in therapy. In the post hoc review, there were no other ureteral strictures.

The median follow-up was seven months after last instillation (range six weeks – 14 months). At first follow-up ureteroscopy, four patients had a complete response, four patients had a partial response, one of whom (with a history of low-grade bladder cancer) also had a bladder tumor. Four of the seven patients who have had more than one surveillance ureteroscopy had an initial complete response. At four and 14 months, two patients continue to show no evidence of disease. Two patients had a recurrence at 13 and 14 months. All patients with an initial partial response who had a follow-up ureteroscopy underwent complete endoscopic tumor ablation. One patient who could not be completely resected during their pre-instillation ureteroscopy demonstrated partial response to Jelmyto that enabled residual disease to be resected with durable response at five months after last ablation. To date, no patient has required kidney removal. Aside from the patient with bladder tumor at first ureteroscopy, no patient has experienced tumor recurrence in the bladder.

There is a need for larger studies with longer follow-up to study more conclusively any potential advantages of antegrade Jelmyto administration when compared to retrograde instillation. Despite these limitations, this study offers a replicable protocol for antegrade administration of Jelmyto.

About LG UTUC

LG UTUC is a rare disease managed by endoscopic methods and radical nephroureterectomy. Endoscopic resection and laser ablation attempt to preserve the kidney, though there is a high risk of recurrence that may eventually necessitate removal of the kidney. Although kidney removal is the gold standard for treatment of high-grade UTUC, it may be over-treatment in LG UTUC, as kidney removal offers similar five-year survival as kidney-sparing procedures but is associated with significant morbidity. Jelmyto is efficacious as a primary chemoablative therapy in patients with LG UTUC.

About Jelmyto®

Jelmyto® (mitomycin) for pyelocalyceal solution is a mitomycin-containing reverse thermal gel containing 4 mg mitomycin per mL gel indicated for primary chemoablative treatment of LG UTUC in adults. It is recommended for primary treatment of biopsy-proven LG UTUC in patients deemed appropriate candidates for renal-sparing therapy. Jelmyto is a viscous liquid when cooled and becomes a semi-solid gel at body temperature. The drug slowly dissolves over four to six hours after instillation and is removed from the urinary tract by normal urine flow and voiding. It is approved for administration in a retrograde manner via ureteral catheter or antegrade through nephrostomy tube. The delivery system allows the initial liquid to coat and conform to the upper urinary tract anatomy. The eventual semisolid gel allows for chemoablative therapy to remain in the collecting system for four to six hours without immediately being diluted or washed away by urine flow.

APPROVED USE FOR JELMYTO

JELMYTO® is a prescription medicine used to treat adults with a type of cancer of the lining of the upper urinary tract including the kidney called low-grade Upper Tract Urothelial Cancer (LG-UTUC).

IMPORTANT SAFETY INFORMATION

You should not receive JELMYTO if you have a hole or tear (perforation) of your bladder or upper urinary tract.

Before receiving JELMYTO, tell your healthcare provider about all your medical conditions, including if you:

- are pregnant or plan to become pregnant. JELMYTO can harm your unborn baby. You should not become pregnant during treatment with JELMYTO. Tell your healthcare provider right away if you become pregnant or think you may be pregnant during treatment with JELMYTO.

Females who are able to become pregnant: You should use effective birth control (contraception) during treatment with JELMYTO and for 6 months after the last dose.

Males being treated with JELMYTO: If you have a female partner who is able to become pregnant, you should use effective birth control (contraception) during treatment with JELMYTO and for 3 months after the last dose.

- are breastfeeding or plan to breastfeed. It is not known if JELMYTO passes into your breast milk. Do not breastfeed during treatment with JELMYTO and for 1 week after the last dose.
- **Tell your healthcare provider if you take water pills (diuretic).**

How will I receive JELMYTO?

- Your healthcare provider will tell you to take a medicine called sodium bicarbonate before each JELMYTO treatment.
- You will receive your JELMYTO dose from your healthcare provider 1 time a week for 6 weeks. It is important that you receive all 6 doses of JELMYTO according to your healthcare provider's instructions. If you miss any appointments, call your healthcare provider as soon as possible to reschedule your appointment. Your healthcare provider may recommend up to an additional 11 monthly doses.
- JELMYTO is given to your kidney through a tube called a catheter.
- During treatment with JELMYTO, your healthcare provider may tell you to take additional medicines or change how you take your current medicines.

After receiving JELMYTO:

- JELMYTO may cause your urine color to change to a violet to blue color. Avoid contact between your skin and urine for at least 6 hours.
- To urinate, **males and females should sit** on a toilet and flush the toilet several times after you use it. After going to the bathroom, wash your hands, your inner thighs, and genital area well with soap and water.
- Clothing that comes in contact with urine should be washed right away and washed separately from other clothing.

JELMYTO may cause serious side effects, including:

- **Swelling and narrowing of the tube that carries urine from the kidney to the bladder (ureteric obstruction).** If you develop swelling and narrowing, and to protect your kidney from damage, your healthcare provider may recommend the placement of a small plastic tube (stent) in the ureter to help the kidney drain. Tell your healthcare provider right away if you develop side pain or fever during treatment with JELMYTO.
- **Bone marrow problems.** JELMYTO can affect your bone marrow and can cause a decrease in your white blood cell, red blood cell, and platelet counts. Your healthcare provider will do blood tests prior to each treatment to check your blood cell counts during treatment with JELMYTO. Your healthcare provider may need to temporarily or permanently stop JELMYTO if you develop bone marrow problems during treatment with JELMYTO.

The most common side effects of JELMYTO include: urinary tract infection, blood in your urine, side pain, nausea, trouble with urination, kidney problems, vomiting, tiredness, stomach (abdomen) pain.

You are encouraged to report negative side effects of prescription drugs to the U.S. Food and Drug Administration. Visit www.fda.gov/medwatch or call 1-800-FDA-1088. You may also report side effects to UroGen Pharma at 1-855-987-6436.

Please see JELMYTO Full Prescribing Information, including the Patient Information, for additional information

About UroGen Pharma Ltd.
UroGen is a biopharmaceutical company dedicated to building and commercializing novel solutions that treat specialty cancers and urologic diseases because patients deserve better options. UroGen has developed RTGel™ reverse-thermal hydrogel, a proprietary sustained release, hydrogel-based platform technology that has the potential to improve therapeutic profiles of existing drugs. UroGen's sustained release technology is designed to enable longer exposure of the urinary tract tissue to medications, making local therapy a potentially more effective treatment option. UroGen's first commercial product Jelmyto (mitomycin) for pyelocalyceal solution, and investigational treatment UGN-102 (mitomycin) for intravesical solution for patients with low-grade non-muscle invasive bladder cancer, are designed to ablate tumors by non-surgical means. UroGen is headquartered in Princeton, NJ with operations in Israel. Visit www.urogen.com to learn more or follow us on Twitter, @UroGenPharma.

Forward-Looking Statements
This press release contains forward-looking statements as that term is defined in the Private Securities Litigation Reform Act of 1995, including, without limitation, statements regarding the potential benefits of antegrade administration of Jelmyto as compared to retrograde instillation. These statements are subject to a number of risks, uncertainties and assumptions, including, but not limited to: results from initial reports of the antegrade administration of Jelmyto may not be indicative of results that may be observed in the future; potential safety and other complications from the

antegrade administration of Jelmyto; and the ability to successfully replicate the protocol for antegrade administration of Jelmyto. In light of these risks and uncertainties, and other risks and uncertainties that are described in the Risk Factors section of UroGen's Form 10-Q filed with the SEC on November 15, 2021 and other filings that UroGen makes with the SEC from time to time (which are available at http://www.sec.gov), the events and circumstances discussed in such forward-looking statements may not occur, and UroGen's actual results could differ materially and adversely from those anticipated or implied thereby. Any forward-looking statements speak only as of the date of this press release and are based on information available to UroGen as of the date of this release.

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