Retrospective Study Finds JELMYTO® Use Effective Following Partial Ablation or Biopsy in Larger Volume Low-Grade Upper Tract Urothelial Tumors that Impede Kidney Preservation

July 10, 2023

PRINCETON, N.J.--(BUSINESS WIRE)--Jul. 10, 2023-- UroGen Pharma Ltd. (Nasdaq: URGN), a biotech company dedicated to developing and commercializing innovative solutions that treat urothelial and specialty cancers, today highlights the results of a sub-analysis from the first post-commercial utilization review of JELMYTO (mitomycin) for pyelocalyceal solution. This study assessed the efficacy of JELMYTO in managing patients with larger volume disease where initial tumor burden may not be amenable to complete mechanical ablation or renal preservation. Findings from the study titled, *The Ablative Effect of Mitomycin Reverse Thermal Gel: Expanding the Role for Nephron Preservation Therapy in Low Grade Upper Tract Urothelial Carcinoma*, are published in *Urologic Oncology: Seminars and Original Investigations* online.

The goal of this study was to explore alternatives to nephroureterectomy for patients with higher-volume low-grade disease to preserve kidney function and minimize complications. This study aimed to determine if higher volume, low-grade upper tract urothelial tumors (LG-UTUC) patients could achieve disease-free status by undergoing partial ablation or biopsy only before treatment with JELMYTO during the initial ureteroscopy (URS) procedure.

In this study of 116 patients from 15 centers no significant differences were found in the rates of rendered disease free (RDF) among those who underwent complete ablation (78.6%), partial ablation (57.6%), or biopsy only (66.7%) during the initial URS procedure (p=0.15). RDF was defined as patients with absence of any tumor or an almost complete response requiring only minimal mechanical ablation to render the upper tract clear of visible disease at first URS after JELMYTO.

The analysis also showed that tumor size prior to JELMYTO induction did not have a significant impact on RDF rates (p=0.09). Tumor size was <1 cm for completely ablated, 1-3 cm for partial ablation or >3 cm for biopsy only. Among the 112 renal units evaluated, 50 underwent complete ablation, 42 underwent partial ablation and 20 underwent biopsy only.

In the Olympus trial, patients were required to have a tumor size of 5 to 15 mm prior to enrollment, and lesions larger than 15 mm were eligible for endoscopic downsizing prior to primary treatment with JELMYTO. Thirty-seven percent (37%) of patients who underwent endoscopic downsizing before enrollment and 58% of Olympus patients achieved a complete response with JELMYTO treatment, defined as the complete absence of tumor three months after initiation of JELMYTO treatment.

“Implementing JELMYTO earlier in real-world scenarios for LG-UTUC may offer appropriate low-risk patients the choice of minimal ablation or biopsy alone for renal preservation,” said Hristos Kaimakliotis, M.D., Associate Professor of Urology, Indiana University Medical Center, Indianapolis, IN. “This kidney-sparing approach aligns with the first-ever UTUC AUA/SUO Guideline, which includes JELMYTO and strongly recommends tumor ablation as the initial management approach for low-grade favorable UTUC.”

Dr. Mark Schoenberg, M.D., Chief Medical Officer at UroGen, commented, “The findings are encouraging and provide evidence in support of a new treatment strategy utilizing JELMYTO for reducing the volume of larger low-grade tumors to help spare the kidney.”

The primary outcome of this study was RDF rate at first post-JELMYTO URS, defined as complete response or partial response with minimal mechanical ablation to endoscopically clear the upper tract of visible disease. While acknowledging the limitations of the study, such as its retrospective design, variability in patient management and institution recordkeeping, lack of follow-up and small number of recurrences, the researchers also noted that additional research is required to better quantify the chemoablative impact and determine the relevant clinical factors for patient selection.

To address some of these areas, investigators are currently enrolling patients in the prospective and retrospective uTRACT Registry, which aims to capture data in a large-scale, standardized manner and provide more comprehensive insights into patient outcomes following JELMYTO treatment, including long-term follow-up.

About UTUC

Approximately 5-7% of urothelial cancer occurs in the upper lining of the kidney, called the calyx and renal pelvis. It could also occur in one or both of the ureter(s), the tubes that lead from the kidneys to the bladder. Cancer in the renal pelvis or ureter(s) is called upper tract. LG-UTUC is usually not very aggressive and is slow to spread but has a high recurrence rate. High-grade UTUC can be more aggressive. It may spread to other parts of the urinary tract, or to other parts of the body.

JELMYTO is approved for the treatment of adults with 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 click here for JELMYTO Full Prescribing Information, including the Patient Information, for additional information and here for the Nephrostomy Administration Guide.

About UroGen Pharma Ltd.

UroGen is a biotech company dedicated to developing and commercializing innovative solutions that treat urothelial and specialty cancers 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 effects of implementing JELMYTO earlier in real-world scenarios for LG-UTUC; additional analysis from the retrospective study of JELMYTO; prospective and retrospective data from the uTRACT Patient Registry; the potential of UroGen's proprietary

RTGel technology as a new treatment strategy for reducing the volume of larger low-grade tumors as well as to improve therapeutic profiles of existing drugs; and UroGen's sustained release technology making local delivery potentially more effective as compared to other treatment options. These statements are subject to a number of risks, uncertainties and assumptions, including, but not limited to: the results of a sub-analysis from the first post-commercial utilization review of JELMYTO for pyelocalyceal solution, as described in the publication may not be indicative of results that may be observed in future clinical practice and may differ from additional analysis of the data from the study or uTRACT Patient Registry; potential safety and other complications from JELMYTO mode of administration; and UroGen's RTGel technology may not perform as expected and we may not successfully develop and receive regulatory approval of any other product that incorporates UroGen's RTGel technology. 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 United States Securities and Exchange Commission (SEC) on May 11, 2023 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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Source: UroGen Pharma Ltd.