



AcelRx Pharmaceuticals Announces Presentation of a Large Cohort of Complex Plastic Surgery Procedures Performed with DSUVIA at Plastic Surgery The Meeting 2022

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The study of 324 complex plastic surgery procedures demonstrated many benefits of using DSUVIA for analgesia, including avoiding the need for general anesthesia

HAYWARD, Calif., Oct. 31, 2022 /PRNewswire/ -- AcelRx Pharmaceuticals, Inc. (Nasdaq: ACRX), (AcelRx), a specialty pharmaceutical company focused on the development and commercialization of innovative therapies for use in medically supervised settings, today announced that an abstract, entitled, "Experience in Complex Outpatient Plastic Surgery Procedures Using Sufentanil Sublingual Tablets" was presented on Friday, October 28th by Jeffrey DeWeese, M.D., FACS, at Plastic Surgery The Meeting 2022, held October 27-30, in Boston, MA. The study, conducted in 324 patients undergoing complex plastic surgery procedures, found many positive benefits of using sufentanil sublingual tablets (SST), 30 mcg (brand name DSUVIA®), including the ability to perform complex, extensive cosmetic procedures without general anesthesia, allowing a rapid discharge time.

This "awake" surgery analysis was a prospective, single-group cohort that were 95% female and ranged in age from 15 to 81 years. The study was conducted at Precision M.D. Cosmetic Surgery Center in Elk Grove, CA. Procedures included liposuction, breast augmentation, breast reduction, brachioplasty, facelift, rhinoplasty, and blepharoplasty, and most significantly, abdominoplasty, which is usually only performed under general anesthesia. Many combination procedures were also undertaken. Patients were administered 1 to 3 mg of oral lorazepam for anxiolysis/sedation and an IV was placed for antibiotic and preemptive antiemetic treatment only. A sufentanil sublingual tablet (SST) 30 mcg (DSUVIA®) was administered sublingually, followed by injection of local and/or tumescent anesthesia. Surgery was initiated 20 to 30 minutes after local anesthetic administration, allowing time for the sufentanil plasma concentrations to approach peak levels. Additional SST doses were then given as needed, with a minimum of 60 minutes between dosing. Median tablet use per procedure was 2 tablets of SST 30 mcg. Additional sedatives or antiemetic drugs were rarely required. Breakthrough discomfort or anxiety for patients was managed by inhaled 50% nitrous oxide, but this was rarely necessary. No unstable vital signs were reported and naloxone was not required by any patient for respiratory depression. Complications included shortening or modifying the procedure due to discomfort on rare occasions. Patient recovery time in the center averaged 19 minutes.

The study found that implementing the use of SST in this surgical center resulted in the ability to successfully perform complex, longer duration procedures without general anesthesia or intravenous (IV) opioids. The investigator also found that the absence of cognitive impairment after extended awake surgery allowed for an easier and more rapid discharge than usual compared to their typical experience when the same procedures are performed under general anesthesia.

"The lack of cognitive impairment, even after extended awake surgery, allowed for an easier discharge of patients compared to my experience when the same procedures are conducted under general anesthesia," stated Dr. DeWeese. "Implementing SST into our protocols in our outpatient surgical center has resulted in the ability to perform complex, lengthy procedures without general anesthesia. Patients often prefer to avoid the cost and adverse events associated with general anesthesia and SST provides significant analgesia to allow a comfortable experience for these patients."

Dr. Pamela Palmer, co-founder and Chief Medical Officer of AcelRx, stated, "While this awake approach to performing plastic surgery procedures using SST has been reported recently by other investigators, this cohort of over 300 plastic surgery cases was remarkable for the complexity of the cases, many of which would have normally been performed under general anesthesia. We were pleased to learn that not only were rescue analgesics rarely required for patient breakthrough pain, but also that the surgeons were able to comfortably perform complex procedures and safely discharge the patient so quickly after relatively prolonged surgical cases. DSUVIA allows an option for patients not wanting to undergo general anesthesia for both short and lengthy plastic surgery procedures."

About Plastic Surgery The Meeting

Plastic Surgery The Meeting brings together plastic surgeons from countries around the globe. It is the premier educational and networking event of the year, for both domestic and international plastic surgeons. It is considered to be the annual meeting of The American Society of Plastic Surgeons (ASPS), the largest plastic surgery specialty organization in the world, representing 94% of all board-certified plastic surgeons in the U.S., and more than 11,000 plastic surgeons worldwide. ASPS is considered a global institution and leading authority on cosmetic and reconstructive plastic surgery. The meeting also convenes members of The Plastic Surgery Foundation (PSF), the American Society of Maxillofacial Surgeons (ASMS), and the World Society for Simulation Surgery.

About DSUVIA (sufentanil sublingual tablet), 30 mcg

DSUVIA®, known as DZUVEO® in Europe, is indicated for use in adults in certified medically supervised healthcare settings, such as hospitals, surgical centers, and emergency departments, for the management of acute pain severe enough to require an opioid analgesic and for which alternative treatments are inadequate. DSUVIA was designed to provide rapid analgesia via a non-invasive route and to eliminate dosing errors associated with intravenous (IV) administration. DSUVIA is a single-strength solid dosage form administered sublingually via a single-dose applicator (SDA) by healthcare professionals. Sufentanil is an opioid analgesic previously only marketed for IV and epidural anesthesia and analgesia. The sufentanil pharmacokinetic profile, when delivered sublingually, avoids the high peak plasma levels and short duration of action observed with IV administration. DZUVEO has been approved by the European Medicines Agency and AcelRx's European commercialization partner, Aguettant, will market the drug in Europe.

This release is intended for investors only. For more information, including important safety information and black box warning for DSUVIA, please visit www.DSUVIA.com.

About AcelRx Pharmaceuticals, Inc.

AcelRx Pharmaceuticals, Inc. is a specialty pharmaceutical company focused on the development and commercialization of innovative therapies for use in medically supervised settings. AcelRx's proprietary, non-invasive sublingual formulation technology delivers sufentanil with consistent pharmacokinetic profiles. The Company has one approved product in the U.S., DSUVIA® (sufentanil sublingual tablet, 30 mcg), known as DZUVEO® in Europe, indicated for the management of acute pain severe enough to require an opioid analgesic for adult patients in certified medically supervised healthcare settings, and several product candidates. The product candidates include: Zalviso® (sufentanil sublingual tablet system, SST system, 15 mcg), an investigational product in the U.S. being developed as an innovatively designed patient-controlled analgesia (PCA) system for reduction of moderate-to-severe acute pain in medically supervised settings; two pre-filled, ready-to-use syringes of ephedrine and phenylephrine licensed for the

U.S. from Aguetant; Niyad™, a regional anticoagulant for the extracorporeal circuit; and LTX-608, for the potential treatment of COVID-19, disseminated intravascular coagulation, acute respiratory distress syndrome and acute pancreatitis. DZUVEO is an approved product in Europe.

This release is intended for investors only. For additional information about AcelRx, please visit www.acelrx.com.



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