Analysis of Postsurgical Pain Management Finds Opioid-Related Adverse Events Drive Longer Hospital Stays, Greater Cost and Higher Likelihood of Readmission

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Retrospective Study Published in Journal of Pain and Palliative Care Pharmacotherapy *Utilized National Hospital Database and Assessed Nearly 320,000 Surgeries*

PARSIPPANY, N.J.--(BUSINESS WIRE)--Mar. 27, 2013-- Pacira Pharmaceuticals, Inc. (NASDAQ: PCRX) today announced data from a large-scale analysis of a national database of patients from 380 hospitals in the United States who underwent 319,898 inpatient surgeries and received opioids for postsurgical pain management. The analysis found that opioid-related adverse events (ORAEs) were associated with a $4,707 increase in hospital costs and a 3.3-day increase in the average length of stay (LOS) in the hospital. The data were published in this month's issue of the *Journal of Pain and Palliative Care Pharmacotherapy.*

"Based on a review of a large, nationally representative patient sample, we were able to correlate and quantify the impact of opioid-related adverse events on the length and cost of hospitalization after surgery," said Gary Oderda, PharmD, MPH, the paper's lead author and professor in the Department of Pharmacy Practice and director of the Utah Pharmacotherapy Outcomes Research Center at the University of Utah College of Pharmacy. "Although opioids have long been the mainstay of postsurgical pain control, a growing body of evidence similar to ours suggests the need to re-examine the benefit-risk profile of an opioid-centric pain management paradigm and explore alternative modalities."

In this retrospective analysis, researchers utilized the Premier healthcare alliance database, the nation's most comprehensive repository of clinical, financial and outcomes information, in order to identify adult patients who underwent common soft tissue and orthopedic surgical procedures and received opioids from September 2008 to August 2010. Records were evaluated to identify patients who received a diagnosis of respiratory, gastrointestinal, central nervous system, urinary or other related adverse events (not present at admission).

Researchers compared differences in LOS, overall hospital cost and readmission rate between the patients who experienced an ORAE (approximately 12 percent of the sample) and those who did not. Key findings demonstrated that patients experiencing an ORAE:

- Were **hospitalized 3.3 days longer** than patients without an ORAE (7.6 days vs. 4.2 days, *P*<0.0001)
- Had a **$4,707 mean increase from the baseline hospitalization cost** compared to patients without an ORAE ($22,077 vs. $17,370, *P*<0.0001)
- Had a **significantly greater 30-day, all-cause readmission rate** (15.8 percent vs. 9.4 percent, *P*<0.0001) compared to patients without an ORAE

"For years, we've had clinical evidence about the prevalence of opioid-related adverse events, particularly in certain patient populations, as illustrated by the recent Joint Commission *Sentinel Event Alert* that detailed the risk for respiratory depression among specific patient types," said Dave Stack, President and CEO of Pacira Pharmaceuticals, Inc. "Dr. Oderda's research contributes to a growing body of socioeconomic evidence that quantifies the significant costs these adverse events impose on both the healthcare system and on patient quality of life, furthering the case for a new, non-opioid based approach to postsurgical pain management."

The research was supported by Pacira Pharmaceuticals, Inc. The full publication is available online here.

About Pacira

Pacira Pharmaceuticals, Inc. (NASDAQ: PCRX) is an emerging specialty pharmaceutical company focused on the clinical and commercial development of new products that meet the needs of acute care practitioners and their patients. The company's current emphasis is the development of non-opioid products for postsurgical pain control, and its lead product, EXPAREL® (bupivacaine liposome injectable suspension), was commercially launched in the United States in April 2012. EXPAREL and two other products have utilized the Pacira proprietary product delivery technology DepoFoam®, a unique platform that encapsulates drugs without altering their molecular structure and then releases them over a desired period of time. Additional information about Pacira is available at www.pacira.com.

About EXPAREL®

EXPAREL (bupivacaine liposome injectable suspension) is indicated for single-dose infiltration into the surgical site to produce postsurgical analgesia. The product combines bupivacaine with DepoFoam, a proven product delivery technology that delivers medication over a desired time period. EXPAREL represents the first and only multivesicular liposome local anesthetic that can be utilized in the peri- or postsurgical setting in the same fashion as current local anesthetics. By utilizing the DepoFoam platform, a single dose of EXPAREL delivers bupivacaine over time, providing analgesia with reduced opioid requirements for up to 72 hours. Pivotal studies have demonstrated the safety and efficacy of EXPAREL in patients undergoing bunionectomy or hemorrhoidectomy procedures and additional studies are underway to further demonstrate the safety and efficacy in other procedures. Additional information is available at www.EXPAREL.com.

Important Safety Information

EXPAREL is contraindicated in obstetrical paracervical block anesthesia. EXPAREL has not been studied for use in patients younger than 18 years of age. Non-bupivacaine-based local anesthetics, including lidocaine, may cause an immediate release of bupivacaine from EXPAREL if administered together locally. The administration of EXPAREL may follow the administration of lidocaine after a delay of 20 minutes or more. Other formulations of bupivacaine should not be administered within 96 hours following administration of EXPAREL. Monitoring of cardiovascular and neurological status, as

well as vital signs should be performed during and after injection of EXPAREL as with other local anesthetic products. Because amide-type local anesthetics, such as bupivacaine, are metabolized by the liver, EXPAREL should be used cautiously in patients with hepatic disease. Patients with severe hepatic disease, because of their inability to metabolize local anesthetics normally, are at a greater risk of developing toxic plasma concentrations. In clinical trials, the most common adverse reactions (incidence greater-than or equal to 10%) following EXPAREL administration were nausea, constipation, and vomiting.

Please see the full Prescribing Information for more details available at http://www.exparel.com/pdf/EXPAREL_Prescribing_Information.pdf.

Source: Pacira Pharmaceuticals, Inc.

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