



New Data Show EXPAREL Plays a Key Role in Achieving Significant Reductions in Opioid Use, Hospital Stay and Total Hospitalization Costs Following Painful Knee Replacement Surgery

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Results show improved clinical and economic outcomes across 10 U.S. hospitals with highest EXPAREL utilization for total knee arthroplasties

PARSIPPANY, N.J., Nov. 27, 2018 (GLOBE NEWSWIRE) -- Pacira Pharmaceuticals, Inc. (NASDAQ: PCRX) today announced new data on the use of EXPAREL® (bupivacaine liposome injectable suspension) to manage postsurgical pain following total knee arthroplasty (TKA). The findings show that patients receiving EXPAREL had a significant reduction in opioid use, hospital length of stay (LOS), and total hospitalization costs compared to TKA patients who did not receive EXPAREL. Patients receiving EXPAREL also had increased likelihood to be discharged home rather than a skilled nursing facility. The results of the study, *Impact of treatment with liposomal bupivacaine on hospital costs, length of stay, and discharge status in patients undergoing total knee arthroplasty at high-use institutions*,¹ were published in [The Journal of Medical Economics](#).

This retrospective analysis utilized hospital chargemaster data from the Premier Healthcare Database from January 2011 through April 2017 for the ten hospitals in the United States with the highest number of primary TKA procedures using EXPAREL. Patients undergoing TKA who received EXPAREL were matched in a one-to-one ratio to a control group of patients whose pain management strategy did not include EXPAREL. The study population included 20,907 Medicare-insured TKA patients and 12,505 TKA patients with commercial insurance.

Results showed that patients undergoing TKA who received EXPAREL demonstrated a significant:

- **Decrease in opioid consumption**, expressed in oral morphine equivalent dosing (MED), when controlled for LOS in both the Medicare and commercial insurance groups (69 mg MED and 64 MED reductions, respectively; $P < 0.0001$)
- **Decrease in average hospital LOS** by 0.6 days in both the Medicare and commercial insurance groups ($P < 0.0001$)
- **Decrease in total hospitalization costs** in both the Medicare and commercial insurance groups ($-\$616$ and $-\$775$, respectively; $P < 0.0001$)
- **Increase in likelihood to be discharged home** in both the Medicare and commercial insurance groups (1.58 times more likely and 1.63 times more likely, respectively; $P < 0.0001$)

"TKA is a painful surgical procedure, and inadequate pain control can delay recovery and increase hospital length of stay, opioid consumption and total hospitalization costs," said Carl Asche, PhD, Research Professor I and Director of the Center for Outcomes Research at the University of Illinois College of Medicine at Peoria and lead author on the study publication. "Our analysis provides strong evidence that EXPAREL plays an essential role in not only reducing opioid consumption and recovery time, but also improving clinical and economic outcomes for hospitals conducting TKA procedures."

Results of this study are consistent with findings from several retrospective studies and randomized controlled trials with high internal validity, including the PILLAR trial,² which found that EXPAREL demonstrated a 78 percent decrease in opioid consumption and significantly better pain control with infiltration of EXPAREL plus bupivacaine versus bupivacaine alone.

"We are pleased to see another body of data that is representative of the positive impact EXPAREL continues to show in joint replacement procedures," said Dave Stack, chairman and chief executive officer of Pacira. "With increasing evidence linking opioid-based pain management following surgery as an inadvertent gateway to long-term opioid use, this study emphasizes the importance of EXPAREL as an opioid alternative that can decrease opioid exposure and improve the patient recovery experience."

Approximately 700,000 total knee arthroplasty (TKA) procedures were performed in the United States in 2012, making it one of the most common hospital-based surgical procedures in the country.³ The number of TKA procedures is estimated to reach 3.48 million procedures in 2030.⁴ Additionally, total Medicare hospital reimbursement for inpatient TKA and total hip arthroplasty (collectively known as total joint arthroplasty [TJA]) was \$6.6 billion in 2013 and is likely to continue rising with the projected increases in TJA procedures.⁵

About Pacira

Pacira Pharmaceuticals, Inc. (NASDAQ: PCRX) is a specialty pharmaceutical company dedicated to advancing and improving postsurgical outcomes for acute care practitioners and their patients. The company's flagship product, EXPAREL® (bupivacaine liposome injectable suspension) was commercially launched in the United States in April 2012. EXPAREL utilizes DepoFoam®, a unique and proprietary product delivery technology that encapsulates drugs without altering their molecular structure, and releases them over a desired period of time. To learn more about Pacira, including the corporate mission to reduce overreliance on opioids, visit www.pacira.com.

Important Safety Information

EXPAREL is contraindicated in obstetrical paracervical block anesthesia. Adverse reactions reported with an incidence greater than or equal to 10% following EXPAREL administration via infiltration were nausea, constipation, and vomiting; adverse reactions reported with an incidence greater than or equal to 10% following EXPAREL administration via interscalene brachial plexus nerve block were nausea, pyrexia, and constipation. If EXPAREL and other non-bupivacaine local anesthetics, including lidocaine, are administered at the same site, there may be an immediate release of bupivacaine from EXPAREL. Therefore, EXPAREL may be administered to the same site 20 minutes after injecting lidocaine. EXPAREL is not recommended to be used in the following patient population: patients <18 years old and/or pregnant patients. Because amide-type local anesthetics, such as bupivacaine, are metabolized by the liver, EXPAREL should be used cautiously in patients with hepatic disease. Warnings and Precautions Specific to EXPAREL: Avoid additional use of local anesthetics within 96 hours following administration of EXPAREL. EXPAREL is not recommended for the following types or routes of administration: epidural, intrathecal, regional nerve blocks other than interscalene brachial plexus nerve block, or intravascular or intra-articular use. The potential sensory and/or motor loss with EXPAREL is temporary and varies in degree and duration depending on the site of injection and dosage administered and may last for up to 5 days, as seen in clinical trials. Warnings and Precautions for Bupivacaine-Containing Products: Central Nervous System (CNS) Reactions: There have been reports of adverse neurologic reactions with the use of local anesthetics. These include persistent anesthesia and paresthesia. CNS reactions are characterized by excitation and/or depression. Cardiovascular System Reactions: Toxic blood concentrations depress cardiac conductivity and excitability which may lead to dysrhythmias, sometimes leading to death. Allergic Reactions: Allergic-type reactions (eg, anaphylaxis and angioedema) are rare and may occur as a result of hypersensitivity to the local anesthetic or to other formulation ingredients. Chondrolysis: There have been reports of chondrolysis (mostly in the shoulder joint) following intra-articular infusion of local anesthetics, which is an unapproved use. Methemoglobinemia: Cases of methemoglobinemia have been reported with local anesthetic use. Full Prescribing Information is available at www.EXPAREL.com.

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¹ Carl V. Asche, Simon Dagenais, Amiee Kang, Jinma Ren & Brian T. Maurer (2018) Impact of treatment with liposomal bupivacaine on hospital costs, length of stay, and discharge status in patients undergoing total knee arthroplasty at high-use institutions, *Journal of Medical Economics*, DOI: 10.1080/13696998.2018.1543190

² Mont MA, Beaver WB, Dysart SH, Barrington JW, Del Gaizo DJ. Local infiltration analgesia with liposomal bupivacaine improves pain scores and reduces opioid use after total knee arthroplasty: results of a randomized controlled trial. *J Arthroplasty*. 2018;33(1):90-96. doi:10.1016/j.arth.2017.07.024.

³ Fingar KR, Stocks C, Weiss AJ, et al. Most Frequent Operating Room Procedures Performed in U.S. Hospitals, 2003-2012: Statistical Brief #186. Healthcare Cost and Utilization Project (HCUP) Statistical Briefs. Rockville (MD): Agency for Healthcare Research and Quality (US), 2014, 1-15

⁴ Kurtz S, Ong K, Lau E, et al. Projections of primary and revision hip and knee arthroplasty in the United States from 2005 to 2030. *J Bone Joint Surg Am* 2007;89:780-5

⁵ Centers for Medicare & Medicaid Services. New Medicare data available to increase transparency on hospital utilization. 2015. Available at: <https://www.cms.gov/newsroom/factsheets/new-medicare-data-available-increase-transparency-hospital-utilization>.



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