

# Administration Case Report With EXPAREL

**EXPAREL**<sup>®</sup>  
(bupivacaine liposome injectable suspension)

OPIOID FREE

This case report represents the individual experience of Dr Jacob Hutchins and is intended to demonstrate his methodology for using EXPAREL in an interscalene brachial plexus nerve block.

Pacira Pharmaceuticals, Inc. recognizes that there are alternative methodologies for administering local anesthetics, as well as individual patient considerations when selecting the dose for a specific procedure.

EXPAREL is indicated for single-dose infiltration in adults to produce postsurgical local analgesia and as an interscalene brachial plexus nerve block to produce postsurgical regional analgesia. Safety and efficacy have not been established in other nerve blocks.

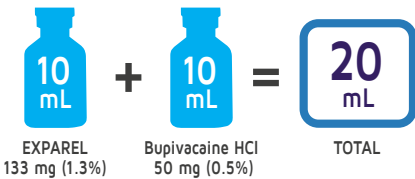
## CASE INFORMATION

<b>Physician Name</b>	Jacob Hutchins, MD
<b>Affiliation</b>	University of Minnesota, Director of the Division of Regional Anesthesia, Acute Pain, and Ambulatory Anesthesia; Medical Director of Anesthesiology of University of Minnesota Health Ambulatory Surgical Center
<b>Nerve Block Performed</b>	Interscalene brachial plexus nerve block
<b>Inpatient or Outpatient Setting</b>	Outpatient

## PATIENT CHARACTERISTICS

<b>Gender</b>	Female
<b>Age</b>	53 years
<b>Patient History and Characteristics</b>	Previous smoker, history of nephrolithiasis and a rotator cuff repair. Scheduled for <b>arthroscopic rotator cuff repair</b> , subacromial decompression, distal clavicle resection, and bicep tenotomy. Anesthetic plan: Ultrasound-guided interscalene brachial plexus nerve block anesthesia care.

## PROCEDURAL DETAILS

<b>Preoperative Analgesics Used</b>	PO acetaminophen 975 mg PO gabapentin 300 mg
<b>Intraoperative Anesthetics Used</b>	Low-dose propofol infusion Low-dose dexmedetomidine infusion IV ketamine 0.25 mg/kg
<b>Nerve Block Performed</b>	Interscalene brachial plexus nerve block with 10 mL (133 mg) EXPAREL admixed with 10 mL (50 mg) 0.5% bupivacaine HCl
<b>Dose of EXPAREL and Total Volume Used</b>	 <p>10 mL EXPAREL 133 mg (1.3%) + 10 mL Bupivacaine HCl 50 mg (0.5%) = 20 mL TOTAL</p>

IV, intravenous; PO, by mouth.

The recommended dose of EXPAREL for interscalene brachial plexus nerve block is based upon one study of patients undergoing either total shoulder arthroplasty or rotator cuff repair. The maximum dose of EXPAREL for interscalene brachial plexus nerve block should not exceed 133 mg.

Bupivacaine HCl may be administered immediately before EXPAREL or admixed in the same syringe, as long as the ratio of the milligram dose of bupivacaine HCl to EXPAREL does not exceed 1:2. Admixing may impact the pharmacokinetic and/or physiochemical properties of EXPAREL, and this effect is concentration dependent. The toxic effects of these drugs are additive and their administration should be used with caution, including monitoring for neurological and cardiovascular effects related to local anesthetic systemic toxicity. Other than with bupivacaine, EXPAREL should not be admixed with other drugs prior to administration.

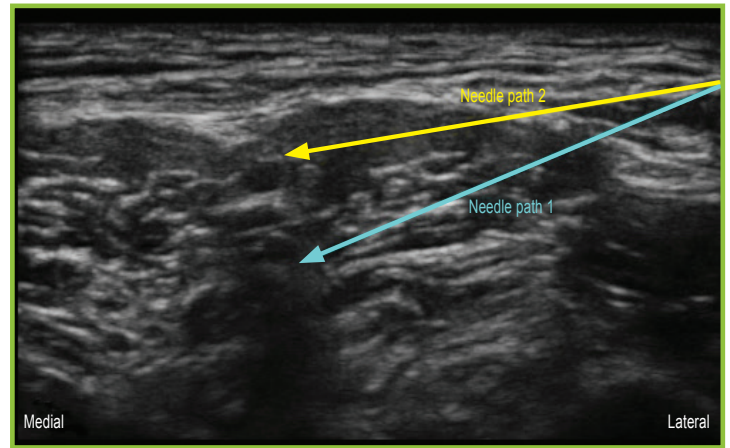
Please see Important Safety Information on reverse and refer to the accompanying full Prescribing Information before using EXPAREL for complete Dosage and Administration information.

## DR HUTCHINS' INTERSCALENE BRACHIAL PLEXUS NERVE BLOCK TECHNIQUE

Dr Hutchins performed an interscalene brachial plexus nerve block using ultrasound guidance to ensure accuracy of infiltration. With the patient in a supine position, with the head of the bed elevated 45 degrees, a linear high-frequency 13-6 MHz probe was used to identify the interscalene brachial plexus between both the anterior and middle scalene muscles.

**Step 1:** A 21-gauge, 100-mm echogenic needle was inserted in the plane lateral to medial until the tip was just lateral to the bottom of the interscalene brachial plexus. Dr Hutchins deposited 10 mL of the admixture inside the compartment (see Needle path 1 in Figure).

**Step 2:** The needle was repositioned until it was just lateral to the top of the interscalene brachial plexus, where the remaining 10 mL of admixture was deposited. Nerve block was performed under direct visualization to ensure proper placement and adequate spread of EXPAREL® (bupivacaine liposome injectable suspension) admixture (see Needle path 2 in Figure).



**FIGURE.** Interscalene brachial plexus nerve block ultrasound.

### 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.

**Disclosure:** Dr Hutchins is a paid consultant for Pacira Pharmaceuticals, Inc.