

## Administration Case Report: Unilateral Simple Mastectomy

This case report represents the individual experience of Dr Stephanie Valente, and is intended to demonstrate her methodology for using EXPAREL in patients undergoing unilateral simple mastectomy.

Pacira BioSciences, 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 a local anesthetic that produces postsurgical analgesia in patients aged 6 years and older. It is administered via single-dose infiltration. When infiltrated into the surgical site, it produces local analgesia. It may also be infiltrated in the fascial plane to produce regional analgesia as a regional field block. Regional anesthetic techniques to produce regional analgesia include, but are not limited to, transversus abdominis plane (TAP) block, pectoralis (PEC) and serratus anterior plane (SAP) blocks, erector spinae plane (ESP) block, and quadratus lumborum (QL) block. EXPAREL may also be administered as an interscalene brachial plexus nerve block in adults to produce postsurgical regional analgesia in total shoulder arthroplasty (TSA) and rotator cuff repair (RCR) procedures.

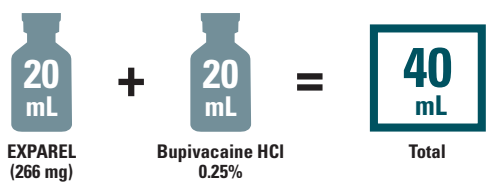
### CASE INFORMATION

<b>Physician Name</b>	Stephanie Valente, DO
<b>Affiliation</b>	Breast Surgeon, Associate Professor of Surgery Director, Breast Surgery Fellowship Program, Cleveland Clinic, Cleveland, OH
<b>Surgical Case Performed</b>	Unilateral simple mastectomy
<b>Inpatient or Outpatient Procedure</b>	Same-day surgery

### PATIENT CHARACTERISTICS

<b>Gender</b>	Female
<b>Age</b>	51 years
<b>Patient History and Characteristics</b>	Patient diagnosed with breast cancer electing to undergo simple mastectomy without reconstruction

### PROCEDURAL DETAILS

<b>Incision Size</b>	7-inch incision*
<b>Dose of EXPAREL and Total Volume Used</b>	 <p>The diagram illustrates the combination of two 20 mL syringes. The first syringe is labeled '20 mL EXPAREL (266 mg)'. The second syringe is labeled '20 mL Bupivacaine HCl 0.25%'. An equals sign follows, leading to a box labeled '40 mL Total'.</p>

### MULTIMODAL ANALGESIA AND ENHANCED RECOVERY AFTER SURGERY PROTOCOL

<b>Preoperative Medications Used</b>	None
<b>Intraoperative Medications Used</b>	40 mL of EXPAREL admixture
<b>Postoperative Medications Used</b>	Ice 20 minutes on/off with acetaminophen 500 mg PO q8h alternating q4h with ibuprofen 600 mg PO q8h for the first 3 days; hydrocodone/acetaminophen 5 mg/325 mg PO q4 to 6h prn for pain for a total of 10 tablets

PO=by mouth; prn=as needed; q4h=every 4 hours; q4 to 6h=every 4 to 6 hours; q8h=every 8 hours.

\*Please note, incision size varies based on breast size.

The recommended dose of EXPAREL for adults is based on the size of the surgical site, the volume required to cover the area, and individual patient factors that may impact the safety of an amide local anesthetic. The maximum dose of EXPAREL should not exceed 266 mg. The recommended dose of EXPAREL for patients aged 6 to <17 years old is 4 mg/kg, up to a maximum of 266 mg. The maximum dose of EXPAREL for interscalene brachial plexus nerve block in adults should not exceed 133 mg.

EXPAREL can be administered unexpanded (20 mL) or expanded to increase volume up to a total of 300 mL (final concentration of 0.89 mg/mL [ie, 1:14 dilution by volume]) with normal (0.9%) saline or lactated Ringer's solution.

Bupivacaine HCl (which is approved for use in patients aged 12 and older) 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 physicochemical 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 the last page and refer to accompanying full Prescribing Information, which is also available at [www.EXPAREL.com](http://www.EXPAREL.com).**

## INFILTRATION NOTES

### ASSESSED THE SIZE OF THE SURGICAL SITE AND DEPTH OF TISSUE, THEN PREPARED INJECTION MATERIALS ACCORDINGLY

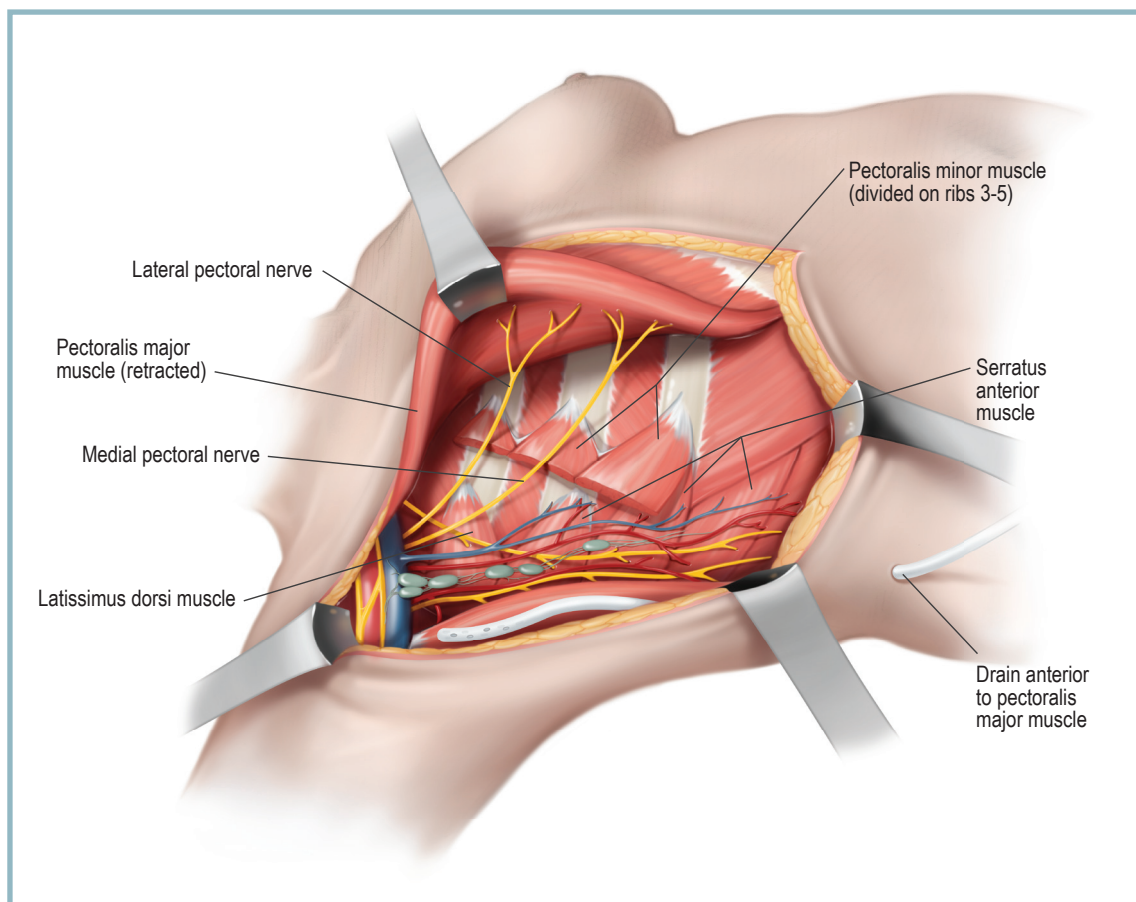
In this procedure, Dr Valente determined that a total volume of 40 mL would be needed to cover the surgical site. She admixed 20 mL of EXPAREL® (bupivacaine liposome injectable suspension) with 20 mL of 0.25% bupivacaine HCl. Bupivacaine HCl was added to provide early-onset analgesia and bridge the time to onset of the long-acting analgesia provided by EXPAREL.



Dr Valente determines the total volume of EXPAREL solution based on whether the mastectomy is unilateral or bilateral. For bilateral procedures, she usually admixes 20 mL of EXPAREL with 20 mL of 0.25% bupivacaine HCl and expands that with 20 mL of injectable normal saline for a total volume of 60 mL. This provides 30 mL of EXPAREL admixture per each breast.

### DIVIDED INJECTATE INTO SYRINGES WITH NEEDLE SIZES APPROPRIATE FOR INFILTRATION (20- TO 25-GAUGE) AND PLANNED WHICH AREAS TO INFILTRATE WITH EACH INJECTION

For this procedure, Dr Valente used one 10-mL syringe with a 25-gauge, 1-inch needle, and refilled it with the remaining admixture to utilize the total volume of 40 mL when needed.

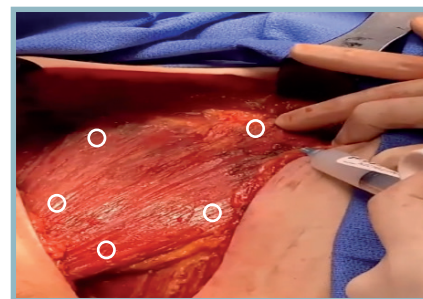


### POSTMASTECTOMY

#### ■ **Step #1:** Perform a field block around mastectomy surgical site

After performing the mastectomy, Dr Valente injected 1 to 2 mL of admixed EXPAREL® (bupivacaine liposome injectable suspension) circumferentially around the mastectomy anatomical boundaries and into the insertion of the pectoralis major muscle for a total volume of approximately 25 mL. She first palpated the ribs and injected directly on top of the rib into the muscle, then moved inferiorly along the serratus anterior muscle. She continued laterally toward the anterior border of the latissimus dorsi muscle and progressed superiorly below the clavicle.

---



#### ■ **Step #2:** Infiltrate the pectoralis muscles

Next, Dr Valente injected about 5 mL of admixed EXPAREL directly into the pectoralis major muscle and then lifted up the muscle and injected about 3 to 5 mL of the EXPAREL admixture into the space between the pectoralis major and minor muscles.

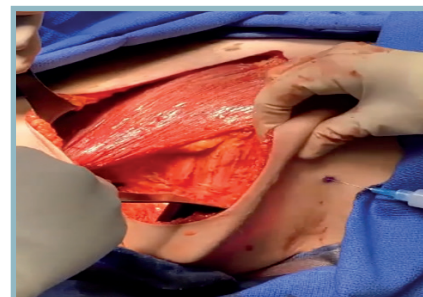
---



#### ■ **Step #3:** Infiltrate the drain site

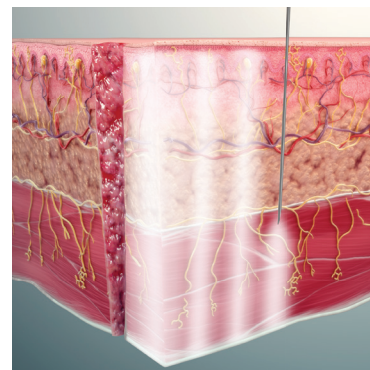
Finally, Dr Valente infiltrated 3 to 5 mL of the EXPAREL admixture around the drain site. This ensured that there is adequate analgesia to an area where many patients may experience postsurgical pain. She injected around the drain site and into the subcutaneous tissues to make sure there were no gaps in analgesic coverage.

---



### PROPER TECHNIQUE IS CRUCIAL FOR ANALGESIC COVERAGE

In order to provide adequate analgesic coverage, Dr Valente infiltrates EXPAREL® (bupivacaine liposome injectable suspension) circumferentially around the mastectomy surgical site to create a field block. She uses anatomical landmarks to guide her placement of EXPAREL. Then, Dr Valente performs a PECS block by injecting EXPAREL between the pectoralis muscles to produce regional analgesia in the anterior wall of the chest. She also ensures to infiltrate EXPAREL around the drain site, which is an area where many patients may complain of postsurgical pain.



 Watch examples of administration with EXPAREL at [www.EXPAREL.com](http://www.EXPAREL.com)

#### Indication

EXPAREL is indicated for single-dose infiltration in patients aged 6 years and older to produce postsurgical local analgesia and in adults as an interscalene brachial plexus nerve block to produce postsurgical regional analgesia. Safety and efficacy have not been established in other nerve blocks.

#### Important Safety Information

EXPAREL is contraindicated in obstetrical paracervical block anesthesia.

Adverse reactions reported in adults with an incidence greater than or equal to 10% following EXPAREL administration via infiltration were nausea, constipation, and vomiting; adverse reactions reported in adults with an incidence greater than or equal to 10% following EXPAREL administration via interscalene brachial plexus nerve block were nausea, pyrexia, and constipation.

Adverse reactions with an incidence greater than or equal to 10% following EXPAREL administration via infiltration in pediatric patients six to less than 17 years of age were nausea, vomiting, constipation, hypotension, anemia, muscle twitching, vision blurred, pruritus, and tachycardia.

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 populations: patients <6 years old for infiltration, patients younger than 18 years old for interscalene brachial plexus nerve block, 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.

**Disclosure:** Dr Valente is a paid consultant for Pacira BioSciences, Inc.

Full Prescribing Information is available at [www.EXPAREL.com](http://www.EXPAREL.com).