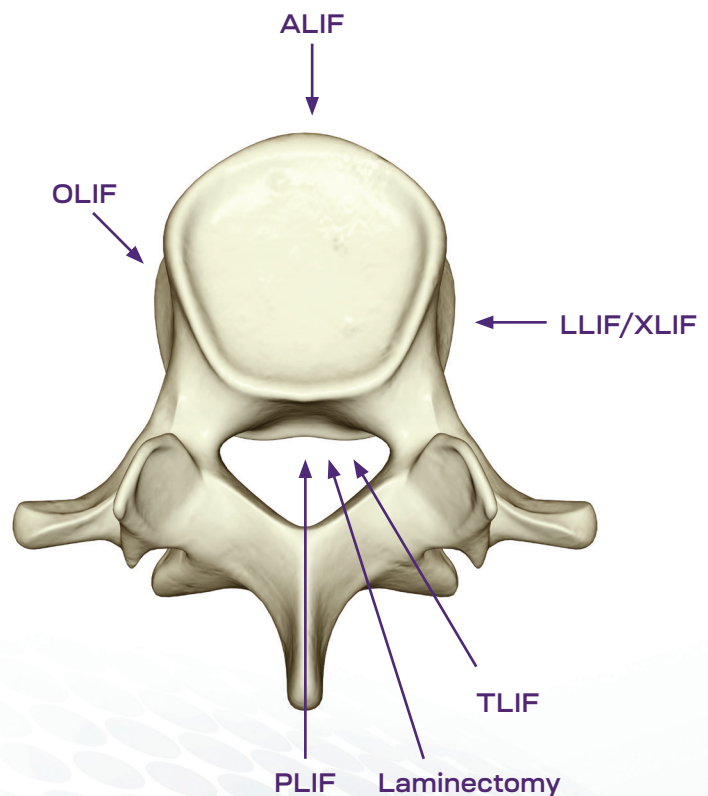


# INCORPORATING EXPAREL IN ADULT SPINE LUMBAR PROCEDURES

ESP, TAP, and rectus sheath block as part of a multimodal analgesia approach to pain management and postsurgical recovery

- Posterior lumbar interbody fusion (PLIF)
- Transforaminal lumbar interbody fusion (TLIF)
- Lateral lumbar interbody fusion (LLIF)/eXtreme lateral interbody fusion (XLIF®)
- Laminectomy
- Anterior lumbar interbody fusion (ALIF)
- Oblique lateral interbody fusion (OLIF)



ESP=erector spinae plane; TAP=transversus abdominis plane.  
XLIF® is a registered trademark of NuVasive, Inc.

This guide represents the individual experience of Dr Jeff Gadsden and is intended to demonstrate his methodology for using EXPAREL with regional field plane blocks in patients undergoing lumbar procedures.

**Please see Important Safety Information on page 5 and full Prescribing Information available at [www.EXPAREL.com](http://www.EXPAREL.com).**

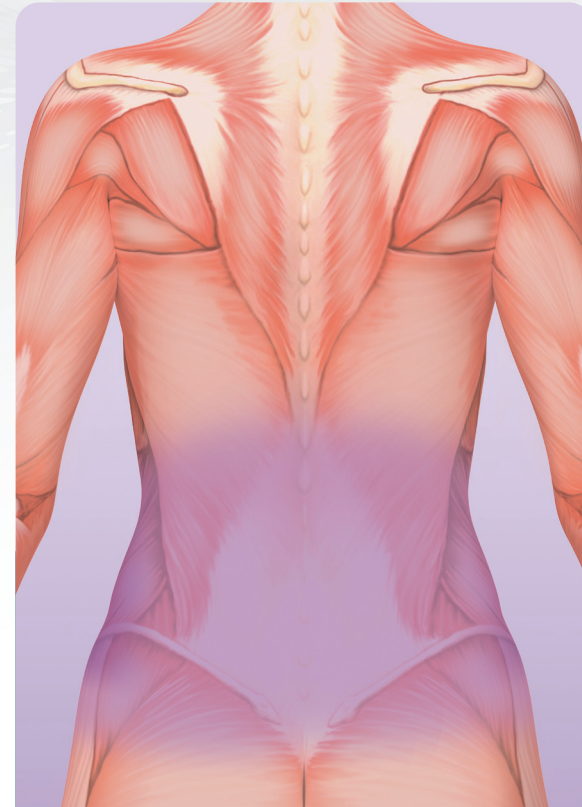


## ESP block technique

### For use in:

PLIF, TLIF, LLIF/XLIF, OLIF, laminectomy, ALIF

- Perform with the patient seated or in the lateral or prone position depending on procedure
- Place transducer and needle entry position at the midpoint level where ESP block is to be performed
- Insert and aim the needle in a cephalad to caudal direction toward the corner of the transverse process (TP)
- Make contact with the TP
- Inject small boluses (1 mL) of saline to confirm that the needle position is underneath the deep fascia of the muscle and not intramuscular
- Once needle position is confirmed, slowly administer expanded EXPAREL mixture, then repeat on the contralateral side



### Dosing and administration example

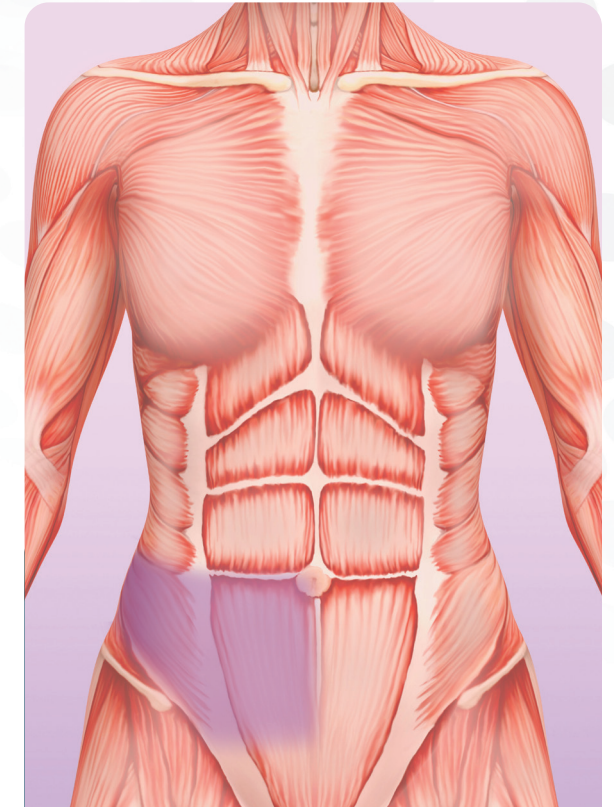
**20 mL EXPAREL + 30 mL 0.25% bupivacaine HCl + 10 mL normal saline = 60 mL total (30 mL per side)**

## Unilateral TAP block technique in conjunction with ESP block for OLIF/ALIF with lateral (non-midline) incisions

### For use in:

OLIF, ALIF with lateral or non-midline incisions

- Perform with the patient in the supine position
- Administer ipsilateral to the planned abdominal surgical incision point
- Place transducer at the midaxillary line, midway between the anterior superior iliac spine and costal margin to obtain a transverse view of the abdominal layers and peritoneal cavity
- Advance needle in-plane until the needle tip reaches the fascia between the internal oblique and transversus abdominis
- Inject small boluses (1 mL) of saline to confirm that the needle position is underneath the deep fascia of the muscle and not intramuscular
- Once needle position is confirmed, slowly administer expanded EXPAREL mixture on ipsilateral side of incision



### Dosing and administration example

**20 mL EXPAREL + 60 mL 0.25% bupivacaine HCl + 10 mL normal saline = 90 mL total**

### ESP block

**60 mL (30 mL per side) +**

### Unilateral TAP block

**30 mL on ipsilateral side of incision**

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

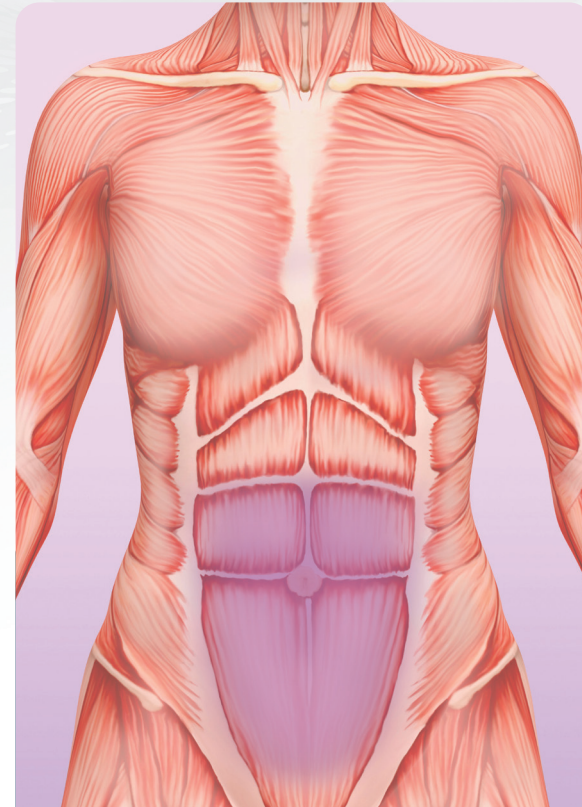


## Rectus sheath block technique in addition to ESP block for OLIF, ALIF with midline incisions

### For use in:

#### OLIF, ALIF with midline incisions

- Perform with patient in the supine position
- Place transducer lateral to umbilicus in transverse orientation to obtain a transverse view of the rectus abdominis muscle
- Advance needle in-plane from lateral to medial until tip is deep to rectus muscle and immediately superficial to the posterior rectus sheath
- Inject small boluses (1 mL) of saline to confirm that the needle position is in the fascial plane between muscle and sheath, and not intramuscular
- Once needle position is confirmed, slowly administer expanded EXPAREL mixture



### Dosing and administration example

**20 mL EXPAREL +  
60 mL 0.25% bupivacaine  
HCl + 10 mL normal saline  
= 90 mL total**

#### ESP block

**60 mL (30 mL per side)**

**+**

#### Rectus sheath block

**30 mL (15 mL per side)**

### 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.

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# At a glance— EXPAREL dosing and administration for adult patients\*

## PLIF, TLIF, LLIF/XLIF, OLIF, and laminectomy

### ESP block

20 mL EXPAREL + 30 mL 0.25% bupivacaine HCl +  
10 mL normal saline = 60 mL total (30 mL per side)

### OLIF, ALIF Non-midline incision point

20 mL EXPAREL +  
60 mL 0.25% bupivacaine HCl +  
10 mL normal saline = 90 mL total

Divide as

### ESP block

60 mL total (30 mL per side)

+

### Unilateral TAP block

30 mL on ipsilateral side of incision

### OLIF, ALIF Midline incision point

20 mL EXPAREL +  
60 mL 0.25% bupivacaine HCl +  
10 mL normal saline = 90 mL total

Divide as

### ESP block

60 mL total (30 mL per side)

+

### Rectus sheath block

30 mL (15 mL per side)

\*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.

Scan here to watch a  
video demonstrating the  
use of EXPAREL in ESP  
block in decompressive  
laminectomy and fusion.



Scan here to view case  
reports describing the  
use of EXPAREL in  
lumbar procedures.



Please see Important Safety Information on page 5 and full Prescribing Information available at [www.EXPAREL.com](http://www.EXPAREL.com).