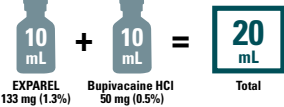


Administration Case Report: Total Shoulder Replacement

This case report represents the individual experience of Dr Maggie Holtz, and is intended to demonstrate her methodology for using EXPAREL in patients undergoing a total shoulder replacement procedure.

Pacira BioSciences, Inc., recognizes that there are other 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	
Physician Name	Maggie Holtz, MD
Affiliation	Chief of Regional & Orthopedic Anesthesia, Georgia Anesthesiologists, P.C. WellStar Kennestone Regional Medical Center, Marietta, GA
Surgical Case Performed	Right total shoulder replacement
Inpatient or Outpatient Procedure	Inpatient
PATIENT CHARACTERISTICS	
Gender	Female
Age	87 years
Patient History and Characteristics	The patient presented with constant right shoulder pain that worsened with movement and had failed conservative therapy Patient has a history of hypertension, hyperlipidemia, paroxysmal atrial fibrillation (currently in sinus rhythm), valvular heart disease (mild to moderate aortic insufficiency), and glaucoma
PROCEDURAL DETAILS	
Preoperative Analgesics Used	IV acetaminophen 1000 mg PO gabapentin 300 mg PO celecoxib 400 mg
Nerve Block Performed	Interscalene brachial plexus nerve block with 10 mL (133 mg) of EXPAREL admixed with 10 mL of 0.5% bupivacaine HCl
Dose of EXPAREL and Total Volume Used	

IV=intravenous; PO=by mouth.

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 (20 mL). The recommended dose of EXPAREL for patients aged 6 to <17 years old is 4 mg/kg, up to a maximum of 266 mg (20 mL). The recommended dose of EXPAREL in adults for interscalene brachial plexus nerve block and sciatic nerve block in the popliteal fossa is 133 mg (10 mL). The recommended dose of EXPAREL in adults for an adductor canal block is 133 mg (10 mL) admixed with 50 mg (10 mL) 0.5% bupivacaine HCL, for a total volume of 20 mL.

EXPAREL can be administered undiluted (20 mL) or diluted to increase volume up to a total of 300 mL (maintain a minimum concentration of 0.89 mg/mL) 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 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 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 full Prescribing Information at www.EXPARELpro.com.

DR HOLTZ'S INTERSCALENE BRACHIAL PLEXUS NERVE BLOCK TECHNIQUE

Step #1:

To identify the brachial plexus, the patient was placed in a semi-Fowler's position with a shoulder roll between the scapulae to facilitate exposure. Skin was prepped, and a linear high-frequency probe was placed on the patient's neck superior to the clavicle. The image was then traced cephalad until the brachial plexus was identified between the anterior and middle scalene muscles.

Step #2:

Under direct ultrasound visualization using an in-plane technique, Dr Holtz inserted a 20-gauge, 4-in echogenic needle from the lateral aspect of the transducer, through the middle scalene muscle, and advanced until the tip was just lateral to the brachial plexus between the C5 and C6 roots. After negative aspiration, Dr Holtz injected saline to confirm the desired placement of the needle tip. She then slowly administered an admixture of 10 mL of EXPAREL® (bupivacaine liposome injectable suspension) (133 mg) and 10 mL of 0.5% bupivacaine HCl (50 mg), with aspiration every 5 mL.

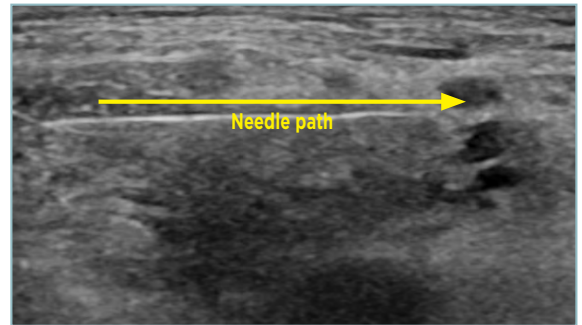


FIGURE. Interscalene brachial plexus nerve block ultrasound.

INDICATION

EXPAREL® (bupivacaine liposome injectable suspension) is indicated to produce postsurgical local analgesia via infiltration in patients aged 6 years and older and regional analgesia in adults via an interscalene brachial plexus nerve block, sciatic nerve block in the popliteal fossa, and an adductor canal block. 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 nerve block were nausea, pyrexia, headache, 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.

Do not admix lidocaine or other non-bupivacaine local anesthetics with EXPAREL. EXPAREL may be administered at least 20 minutes or more following local administration of 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 nerve blocks, 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.

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

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, sciatic nerve block in the popliteal fossa, and adductor canal 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.EXPARELpro.com.

For more information, please visit www.EXPARELpro.com or call 1-855-793-9727.