

Exparel Reduces Opioid Use Following Third Molar Surgery

A Randomized Controlled Trial

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NDC 65250-133-04
Contains 4
10 mL Vials

EXPAREL[®]
(bupivacaine liposome injectable suspension)

1.3%
133 mg/10 mL (13.3 mg/mL)

Rx Only

For infiltration, interscalene brachial plexus nerve block, sciatic nerve block in the popliteal fossa, and adductor canal block.

Contents: Each 10 mL vial contains 133 mg of bupivacaine free base.
Usual Dosage: see Prescribing Information. Do not substitute for or with other formulations containing bupivacaine or bupivacaine HCl. Single dose vial; discard any unused portion.

Do not freeze. Do not use the vial if the stopper is bulging.

Manufactured for:
PACIRA
PHARMACEUTICAL, INC.
5 Sylvan Way
Parsippany, NJ 07054



UCLA

Oral and
Maxillofacial Surgery

Disclosure

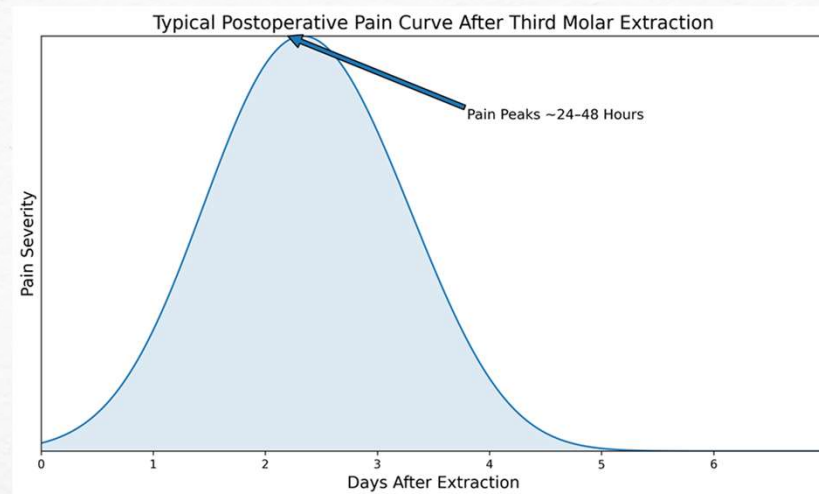
- This study was funded by UCLA School of Dentistry

The Opioid Problem

- 1 in 3 opioid-naïve young adults receive their first opioid from a dentist ¹
- Third molar extraction is one of the most common surgeries in adolescents
- First opioid prescription increases long-term use risk **2–3x** ²

Pain Timing vs Anesthetic Duration

- Postoperative pain peaks 24–48 hours
- Standard local anesthesia lasts ~6-8 hours
- Pain peaks when anesthesia is gone



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Liposomal Bupivacaine (Exparel)

- Liposomal bupivacaine encapsulates bupivacaine inside lipid vesicles
- Designed for up to 72 hours of analgesia
- Extends local anesthetic duration to match postoperative pain peak

The hypothesis: Can we reduce pain and opioid use by extending duration of local anesthesia?

Study Design

- Single blind, randomized controlled trial (n=93)
- 4 partial bony/full bony impacted third molars
- Standard multimodal analgesia in both groups
- Exparel + standard LA vs standard LA alone
- Outcomes measured
 - Use of opioids
 - Pain scores

Opioid Use

- Opioid use decreased 53% → 26%
- 1 in 4 patients avoided opioids entirely

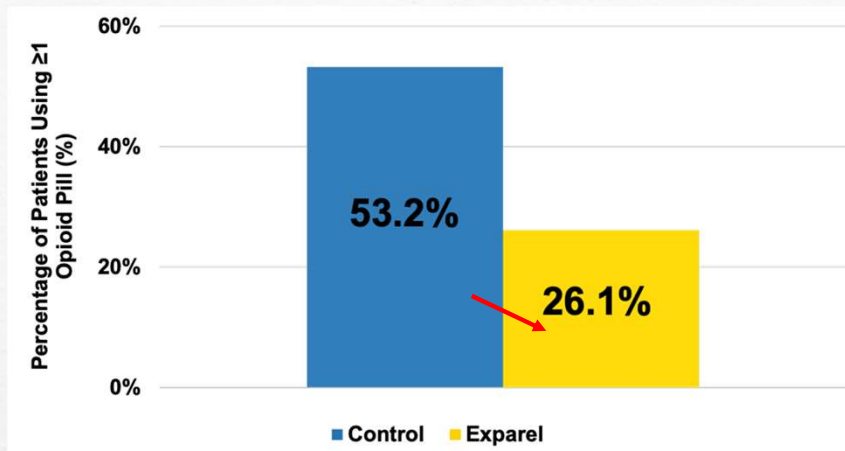


Figure 1. Opioid Use. $p < 0.05$

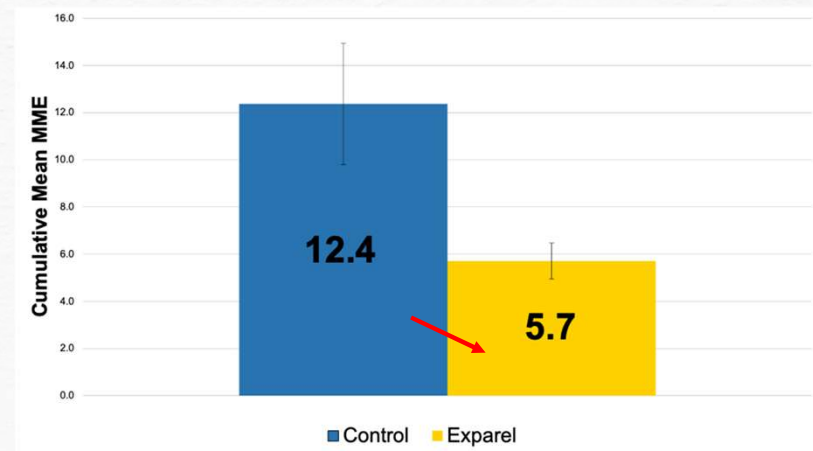


Figure 2. Total Milligram Morphine Equivalent (MME). $p < 0.05$

Pain Outcomes

- Pain scores were similar between groups
- Strong baseline multimodal analgesia in both groups
- Opioid use dropped, pain did not increase

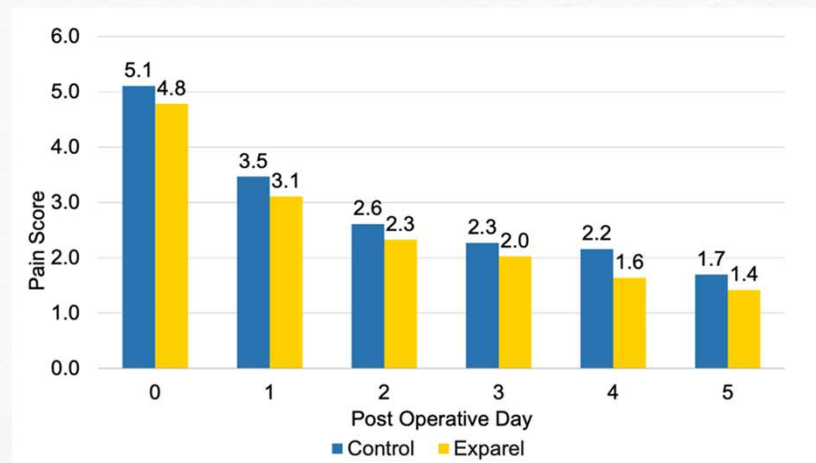


Figure 3. Average postoperative pain scores

Previous Literature

- Previous studies were mixed
 - Lieblich ³ restricted nonopioids and found no opioid-sparing effect
 - Youn ⁴ in a split mouth design reported minimal opioid use in both groups but restricted opioids
- Our study reflects real-world multimodal practice

Cost & Practicality

- Exparel is more expensive than standard local anesthetic (\$250 per 10ml)
- Do we need it for every patient?
- For higher-risk patients such as opioid-naïve young adults, patients with history of substance use- extended local anesthesia could be a strategic intervention

Takeaway

- Wisdom tooth surgery = common first opioid exposure
- Extending local anesthesia reduced opioid use by over 50%
- No increase in pain

Sources

- ¹ Schroeder AR, Dehghan M, Newman TB, Bentley JP, Park KT. **Association of Opioid Prescriptions From Dental Clinicians for US Adolescents and Young Adults With Subsequent Opioid Use and Abuse.** JAMA Intern Med. 2019;179(2):145–152. doi:10.1001/jamainternmed.2018.5419
- ² Harbaugh CM, Nalliah RP, Hu HM, Englesbe MJ, Waljee JF, Brummett CM. **Persistent Opioid Use After Wisdom Tooth Extraction.** JAMA. 2018 Aug 7;320(5):504-506. doi: 10.1001/jama.2018.9023. PMID: 30088000; PMCID: PMC6142986.
- ³ Lieblich SE, Danesi H. **Liposomal Bupivacaine Use in Third Molar Impaction Surgery: INNOVATE Study.** Anesth Prog.
- ⁴ Youn S, Schecker K, Sheridan S, Hayashi C, Pickering TA, Costandi J. **Does Liposomal Bupivacaine Reduce Postoperative Pain Following Third Molar Extractions? A Double-Blinded Randomized Controlled Trial.** J Oral Maxillofac Surg Off J Am Assoc Oral Maxillofac Surg.