OPIOID SPARING STRATEGIES FOR OBSTETRIC SURGERY: 
BRINGING ERAS INTO THE CESAREAN SECTION SUITE
Gregory Collins, DNP, CRNA
FINANCIAL DISCLOSURES: NONE

OFF-LABEL DRUG USAGE: ONDANSETRON DEXAMETHASONE
ERR... MAH...

TxANA
Texas Association of Nurse Anesthetists
Review the origins of ERAS and the history of ERAS strategies in OB surgery.

Identify strategies shown to reduce opioid consumption after CS.

Propose means of evaluation and methods for implementing ERAS strategies.
Multimodal approach to control postoperative pathophysiology and rehabilitation

H. Kehlet

Enhanced recovery in obstetrics – a new frontier?
ORIGINAL ARTICLE

Introduction of enhanced recovery for elective caesarean section enabling next day discharge: a tertiary centre experience

I.J. Wrench, a A. Allison, b A. Galimberti, c S. Radley, c M.J. Wilson b
aDepartment of Anaesthetics, Royal Hallamshire Hospital, Sheffield, UK
bSchool of Health and Related Research, University of Sheffield, Sheffield, UK
cDepartment of Obstetrics and Gynaecology, Royal Hallamshire Hospital, Sheffield, UK

ORIGINAL ARTICLE

Enhanced recovery from obstetric surgery: a UK survey of practice

S. Aluri, I.J. Wrench
Department of Anaesthetics, Royal Hallamshire Hospital, Sheffield, UK

RESEARCH ARTICLE

Enhanced recovery after elective caesarean: a rapid review of clinical protocols, and an umbrella review of systematic reviews

Ellena Corso1, Daniel Hind2, Daniel Beever3, Gordon Fuller4, Matthew J. Wilson5, Ian J. Wrench5 and Duncan Chambers6
Enhanced Recovery after Surgery
Considerations for Pathway Development and Implementation

Analgesia and Anesthesia for the Obstetric Patient
Practice Guidelines
Amarillo ranks in top 25 cities with opioid abuse

Published: Tuesday, March 6th 2018, 6:51 pm CDT
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By Kristy Gerlett, Reporter
DEPARTMENT OF HEALTH & HUMAN SERVICES

Office of the Secretary

Washington DC 20201

DETERMINATION THAT A PUBLIC HEALTH EMERGENCY EXISTS

As a result of the consequences of the opioid crisis affecting our Nation, on this date and after consultation with public health officials as necessary, I, Eric D. Hargan, Acting Secretary of Health and Human Services, pursuant to the authority vested in me under section 319 of the Public Health Service Act, do hereby determine that a public health emergency exists nationwide.

Date: 10/26/2017

/s/

Eric D. Hargan
Acting Secretary
Opioid Epidemic: Original Research

Postdischarge Opioid Use After Cesarean Delivery

CONCLUSION: Most women—especially those with normal in-hospital opioid use—are prescribed opioids in excess of the amount needed.

Sarah S. Osmundson, MD, MS, Leslie A. Schornack, MD, Jennifer L. Grsch, BS, Lisa C. Zuckerwise, MD, Jessica L. Young, MD, and Michael G. Richardson, MD

Patterns of Opioid Prescription and Use After Cesarean Delivery

CONCLUSION: The amount of opioid prescribed after cesarean delivery generally exceeds the amount consumed by a significant margin, leading to substantial amounts of leftover opioid medication. Lower opioid prescription correlates with lower consumption without a concomitant increase in pain scores or satisfaction.

Brenda Raposo-Corradiari, MS, Robert L. Schoenfelder, BS, Reena Khatkar, BS, Lori J. Boy, MD, Lynnette Harris, BSN, Jessica L. Booth, MD, Pamela Flood, MD, MA, Melissa E. Bauer, DO, Lawrence C. Tsen, MD, Ruth Landau, MD, and Lisa R. Leffert, MD
PREOPERATION
ALLOW LIGHT MEAL UP TO 6 HOURS BEFORE SURGERY
PREOPERATION

ALLOW LIGHT MEAL UP TO 6 HOURS BEFORE SURGERY

ENCOURAGE CARB-RICH CL UP TO 2 HOURS BEFORE SURGERY
### PREOPERATION

- **ALLOW LIGHT MEAL UP TO 6 HOURS BEFORE SURGERY**
- **ENCOURAGE CARB-RICH CL UP TO 2 HOURS BEFORE SURGERY**
- **INITIATE PHARMACOLOGICAL ASPIRATION PROPHYLAXIS**
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<td>INITIATE PHARMACOLOGICAL ASPIRATION PROPHYLAXIS</td>
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<td>PREGABALIN 100 mg PO 1 HOUR BEFORE SURGERY</td>
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INTRAOPERATION

ACETAMINOPHEN 1000 mg IV BEFORE INCISION
ACETAMINOPHEN 1000 mg IV BEFORE INCISION

ONDANSETRON 4-8 mg IV JUST PRIOR TO SAB PLACEMENT
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<td><strong>ONDANSETRON 4-8 mg IV JUST PRIOR TO SAB PLACEMENT</strong></td>
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<td><strong>PF MORPHINE 100 mcg INTRATHECAL WITH SAB</strong></td>
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INTRAOPERATION

ACTIVE, FORCED-AIR PATIENT WARMING
INTRAOPERATION

ACTIVE, FORCED-AIR PATIENT WARMING

DEXAMETHASONE 8 mg IV AFTER CORD CLAMP
INTRAOPERATION

ACTIVE, FORCED-AIR PATIENT WARMING

DEXAMETHASONE 8 mg IV AFTER CORD CLAMP

CONSIDER TRANSVERSUS ABDOMINUS PLANE BLOCK
The addition of intrathecal morphine to a transversus abdominis plane block with liposome bupivacaine provides more effective analgesia than transversus abdominis plane block with liposome bupivacaine alone: a retrospective study
Transversus Abdominis Plane Block With Liposomal Bupivacaine for Pain Control After Cesarean Delivery: A Retrospective Chart Review

B. Wycke Baker, MD, 1,3 Lea G. Villaldecigo, BSN, RN, BC, CLINC, 1,3 Y Natasha Lake, MD, 1,3 Yazan Amin, BS, 1 David W. Ashton, MPH 1

Texas Children's Hospital Pavilion for Women, Houston, TX; 1,3Anesthesiology Partners, Houston, TX; 1,3Baylor College of Medicine, Houston, TX

BACKGROUND

- Many women experience moderate to severe pain after cesarean delivery, which is common practice now that obstetric anesthesia has become more advanced and widespread.
- The benefit of multi-modal pain management is well-documented with liposomal bupivacaine.
- Some studies have shown that liposomal bupivacaine offers a more consistent pain response, with decreased opioid use.
- The technique of transversus abdominis plane (TAP) block is often used in multi-modal pain management.

OBJECTIVE

- To determine if the rates of opioid use in the TAP group is greater than or less than the non-TAP group.
- To determine if there is a difference in pain control between the TAP and non-TAP groups.

METHODS

Study Design and Patients

- A single-center, retrospective chart review of 124 consecutive women who underwent cesarean delivery with epidural and peripheral nerve block management at Texas Children’s Hospital in Houston, TX.
- Women were divided into a TAP group and a non-TAP group. Pain relief was scored on a 0-10 scale.

Outcome Measures

- Pain relief measured at 1, 4, 8, and 24 hours after delivery.
- Opioid use recorded.

Statistical Analysis

- Descriptive statistics were used to analyze the data.
- Continuous variables were compared using ANOVA.
- Categorical variables were compared using chi-square test.

RESULTS

Table 1: Demographic and Clinical Characteristics

<table>
<thead>
<tr>
<th>Characteristics</th>
<th>TAP Group</th>
<th>Non-TAP Group</th>
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<tbody>
<tr>
<td>Age (years)</td>
<td>27.4 ± 3.8</td>
<td>28.2 ± 4.1</td>
</tr>
<tr>
<td>Gestation (weeks)</td>
<td>39.1 ± 1.8</td>
<td>39.2 ± 1.7</td>
</tr>
<tr>
<td>Birth weight (kg)</td>
<td>3.5 ± 0.5</td>
<td>3.6 ± 0.5</td>
</tr>
<tr>
<td>Maternal BMI</td>
<td>27.7 ± 3.2</td>
<td>28.1 ± 3.9</td>
</tr>
</tbody>
</table>

Table 2: Pain Scores at 1, 4, 8, and 24 Hours

<table>
<thead>
<tr>
<th>Time (hours)</th>
<th>TAP Group (mean ± SD)</th>
<th>Non-TAP Group (mean ± SD)</th>
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</thead>
<tbody>
<tr>
<td>1</td>
<td>3.5 ± 2.1</td>
<td>5.2 ± 3.4</td>
</tr>
<tr>
<td>4</td>
<td>1.8 ± 1.2</td>
<td>3.5 ± 2.5</td>
</tr>
<tr>
<td>8</td>
<td>1.2 ± 0.8</td>
<td>2.5 ± 1.5</td>
</tr>
<tr>
<td>24</td>
<td>0.8 ± 0.5</td>
<td>1.5 ± 1.1</td>
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Table 3: Opioid Use

<table>
<thead>
<tr>
<th>Opioid</th>
<th>TAP Group (n)</th>
<th>Non-TAP Group (n)</th>
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<tbody>
<tr>
<td>Morphine</td>
<td>2.5 ± 1.2</td>
<td>5.0 ± 2.4</td>
</tr>
<tr>
<td>Demerol</td>
<td>2.0 ± 1.3</td>
<td>4.5 ± 1.9</td>
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CONCLUSIONS

- Adding TAP block with liposomal bupivacaine to a multimodal postcesarean pain management protocol significantly reduced post-pregnancy opioid consumption, pain scores, discharge- and PACU-readiness times, functional recovery, and LOS.
- Results of subgroups analyses were exploratory, and differences may reflect slower recovery after repeat-cesarean delivery.
- There were no unexpected safety signals, and AE rates were similar with and without TAP block.
- These results suggest that multimodal pain management incorporating liposomal bupivacaine TAP block is an effective approach to reducing opioid reliance and improving analgesia after cesarean delivery.
CONCLUSIONS

- Adding TAP block with LB 266 mg to a multimodal postcesarean pain management protocol significantly reduced postsurgical opioid consumption, pain scores, discharge- and PACU-ready times, functional recovery, and LOS.
  - Results of subgroups analyses were exploratory, and differences may reflect slower recovery after repeat-cesarean delivery.
- There were no unexpected safety signals, and AE rates were similar with and without LB TAP block.
- These results suggest that multimodal pain management incorporating LB TAP block is an effective approach to reducing opioid reliance and improving analgesia after cesarean delivery.
CORRESPONDENCE

Transversalis fascia plane block, a novel ultrasound-guided abdominal wall nerve block
Correspondence

Transversalis fascia plane block provides effective postoperative analgesia for cesarean section: New indication for known block
POSTOPERATION

ENCOURAGE *EARLY ORAL INTAKE*
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<td>ENCOURAGE <em>EARLY ORAL INTAKE</em></td>
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<td>ENCOURAGE <em>EARLY REMOVAL OF URINARY CATHETER</em></td>
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<td>ENCOURAGE <em>EARLY REMOVAL</em> OF URINARY CATHETER</td>
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<tr>
<td>ACETAMINOPHEN 1000 mg IV/PO EVERY 6 HOURS</td>
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POSTOPERATION

ENCOURAGE EARLY ORAL INTAKE

ENCOURAGE EARLY REMOVAL OF URINARY CATHETER

ACETAMINOPHEN 1000 mg IV/PO EVERY 6 HOURS

KETOROLAC 30 mg IV EVERY 6 HOURS
EDUCATION
Stolen from Tom Baribeault’s FaceBook post
OUTCOMES?
I do anesthesia, not magic.
QUESTIONS?

g.collins@txana.org
