



Franklin Square
Hospital Center

Centered on You
And Your Health

Effect of PCEA vs. PCA post Cesarean Section on Perceived Pain and Breastfeeding

Joan Robertson, MA, BSN, RN, LCCE, NE-BC; Joyce Carroll, BSN, RNC NE-BC; Shirley Kowalewski, BSN, RNC;
Grace Bourke, BSN, RNC; Barbara Crist, BSN, RN, IBCLC; Jennifer Duff, MSN, RN; Judy Zacharias, RNC; Selena Thomas, MD;
Donovan Dietrick, MD; Anne (Nancy) Woods, PhD, MHP, CNM
Franklin Square Hospital Center, Baltimore, Maryland



Nursing
Strength of the Square

Purpose

To identify the most effective modality for pain management in the post cesarean section patient and its effect on breastfeeding behaviors in the first 24 hours post-operatively.

Background and Significance

- The Pain Resource Nurse on a busy post-partum unit observed that women who received patient controlled epidural analgesia (PCEA) demonstrated enhanced pain relief as compared to women receiving patient controlled analgesia (PCA).
- Nursing staff hypothesized that women who received PCEA were able to breastfeed more effectively.



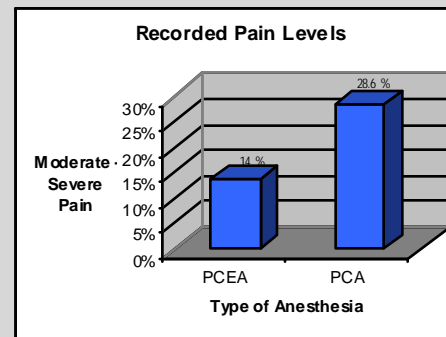
Literature Review

A review of the literature revealed no evidence regarding choice of pain modality and the effect on breastfeeding in post c-section women.

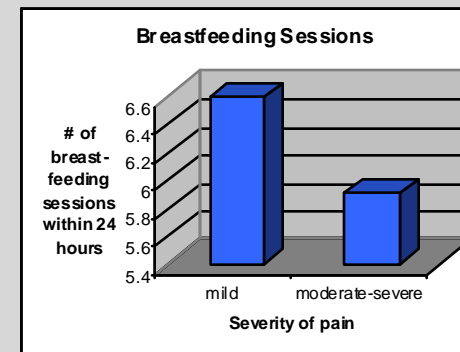
Method

- A Retrospective descriptive comparative correlational study was conducted
- Data extracted from medical records for all c-section deliveries with gestational ages of 34 weeks or greater (N=621).
- Variables evaluated included:
 - Maternal Pain Score
 - Adjuvant Medications
 - Latch Scores
 - Number of Breastfeeding Sessions

Results



Results



Conclusions

- The best modality for pain relief post-cesarean section was PCEA.
- Prolonged time to initial breastfeeding (4.2 hours).

Implications

- Recommendations for practice changes included:
- Appropriate patients will receive PCEA for pain management.
 - Strategies developed to decrease the time of first breastfeeding within 120 minutes of birth:
 - Re-education program for staff on timeliness of breastfeeding
 - Staff resources allocated to PACU following C-section delivery to assist with breastfeeding
 - Lactation Consultants monitor compliance concurrently.

Outcomes

- Ongoing data reflects an increased PCEA usage in post-cesarean section patients from 87.1% to 91.6%.
- After implementation of strategies, time to initial breastfeeding was decreased from 4.2 hours to 1.35 hours.

References

- Dewey, K.G., Nommsen-Rivers, L.A., Heinig, J., & Cohen, R.J. (2003). Risk factors for suboptimal infant breastfeeding behavior, delayed onset of lactation, and excess neonatal weight loss. *Pediatrics* 112(3), 607-619.
- Gadsden, J., Hart, S., & Santos, A. C. (2005). Post-Cesarean delivery analgesia. *Anesth Analg* 101: S62-S69.
- Hamilton, B. E., Martin, J. A., Ventura, S. J. (2007). Births: Preliminary data for 2005. *National Vital Statistics Reports* 55 (11). Hyattsville, MD: National Center for Health Statistics.
- Kumar, S.P., Mooney, R., Weiser, L.J., & Havstad, S. (2006). The LATCH scoring system and prediction of breastfeeding duration. *J Hum Lact* 22(4), 391-397.
- Lim, Y. Jha, S., Sia, A. T., & Rawal, N. (2005). Morphine for post-cesarean section analgesia: intrathecal, epidural or intravenous? *Singapore Med J* 46(8), 392-396.
- Rowe-Murray, H., & Fisher, J. R. W. (2002). Baby friendly hospital practices: Cesarean section is a persistent barrier to early initiation of breastfeeding. *Birth* 29(2), 124-131.
- Wu, C. L., Cohen, S. R., Richman, J. M., Rowlingson, A. J., Courpas, G. E., Cheung, K., Lin, E. E., & Lui, S. S. (2005). Efficacy of postoperative patient-controlled and continuous infusion epidural analgesia versus intravenous patient-controlled analgesia with opioids: A meta-analysis. *Anesthesiology* 103(5), 1079.

Contact Information

Joan R. Robertson, MA, BSN, LCCE, NE-BC
Clinical Administrator
Women's and Children's Services
Franklin Square Hospital Center
9000 Franklin Square Drive
Baltimore, Maryland 21237
443-777-7049