

## **ERAS FOR CESAREAN DELIVERY: A PROPENSITY MATCHED SCORING ANALYSIS**

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### **Background/Introduction:**

Enhanced Recovery after Surgery [ERAS] is a multidisciplinary team oriented healthcare approach aimed at providing a comprehensive, evidence based practice with the overarching goal of improving patient outcomes. However, the implementation of ERAS for cesarean delivery has been timid in comparison to other surgical specialties. In this quality improvement project, we evaluated the impact of introducing an ERAS protocol on maternal outcomes.

### **Methods:**

After approval from the University of Virginia Institutional Review Board, we analyzed 368 consecutive patients undergoing elective cesarean delivery at the University of Virginia before [April 1<sup>st</sup>, 2015 to October 30<sup>th</sup>, 2015] and after [May 1<sup>st</sup>, 2016 to February 28<sup>th</sup>, 2017] the development of an enhanced recovery program. The primary outcome of interest was post cesarean opioid consumption. Other measures included: average LOS and readmission to hospital within 30 days.

### **Results:**

A total of 368 patients (control group 197, ERAS group 171) who underwent elective cesarean delivery were screened for eligibility. Of these, 357 were included in the propensity score matching. In the matched analysis, the application of ERAS resulted in a 38% reduction in post-operative morphine consumption ( $28.4 \pm 24.1$  vs  $46.1 \pm 37.0$  mg,  $p < 0.001$ ), significantly lower 'highest pain' scores (7 [5-9] vs 8 [6-9],  $p = 0.035$ ), and a shorter length of stay ( $2.5 \pm 0.5$  vs  $2.9 \pm 1.2$  days,  $p < 0.001$ ).

### **Conclusion:**

The results of this study suggest that the implementation of an ERAS protocol for cesarean delivery achieved the same quality of improvement seen in other enhanced recovery protocols for other surgeries including a decrease in opioid consumption and length of stay.