# Decreasing Excess Opioid Prescriptions After Cesarean Delivery

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## Abstract

Over the past decade, the opioid epidemic has grown with over 70% of all drug overdose deaths being related to opioid use in 2018. Cesarean sections are the most common surgical procedure in the United States with 1.3 million performed annually. At our institution, there has been no formal education for providers regarding opioid prescribing after cesarean section. The aim of this quality improvement project was to educate providers and aid in having discharge opioid prescriptions mirror inpatient use of opioids. Providers responsible for discharging patients after cesarean section were instructed to assess the patient MAR and try to tailor discharge opioid prescription to inpatient opioid usage. Overall the percent of opioid prescriptions at time of discharge slightly increased after the intervention, however the average number of opioids prescribed per patient was noted to decrease from 14 tablets per person to 11 tablets per person. The data was likely confounded by the coronavirus pandemic which caused a push for earlier discharge postoperatively.

## Introduction

Cesarean sections are the most common surgery performed in the United States, with over 1.3 million performed annually. A study in the Journal of Obstetrics and Gynecology in 2017 showed that 83% of women who filled an opioid prescription after cesarean delivery had leftover opioids, and about 95% of those with leftover opioids did not know how to dispose of them properly.[1] A separate study at a separate institution showed 75% of women had leftover opioids after cesarean delivery with 63% of those women not disposing of the remaining opioids.[2] This is a growing public health concern as leftover opioids that are not disposed are at risk of being misused by the patient or others sharing their household. Current practice is for our patients to be discharged after a cesarean delivery with a 1 week supply of oxycodone (14-20 tablets depending on the provider writing the prescription). There has been no formal education or protocol in place for providers regarding opioid prescribing postoperatively for cesarean section patients. Other institutions have attempted to make postoperative pain management prescriptions based on a shared decision making model. In these efforts, they saw a 50% reduction in the number of opioids being prescribed at their institution with no notable difference in patient satisfaction scores regarding pain control.[3] They also saw a tremendous decrease in the number of leftover opioids after this intervention.

## Methods and Materials

In an effort to decrease the number of opioid prescriptions sent at the time of discharge after cesarean section, all discharging providers were educated with a script to aid in joint decision making with the patient regarding discharge pain management. Providers were encouraged to assess how frequently patients received opioids in the 24 hours leading up to discharge. Using this information, the provider was instructed to use shared decision making and discuss if opioids would be prescribed and/or how many pills would be prescribed upon discharge
The patients included in this project were all patients of the resident and faculty clinics as well as the regional Perinatal Center who underwent cesarean sections (elective or unscheduled). Patients were excluded if they had a history of chronic opioid use or were on medication-assisted treatment for opioid use disorder. Patients with wound complications were also excluded from the study.
Charts were then reviewed from the 4 weeks prior to the intervention and from the 3 weeks after the intervention. The charts were analyzed to assess last inpatient use of opioids, whether or not opioids were sent at time of discharge and how many pills were prescribed. Prescribers were also asked to complete an anonymous survey to assess whether they felt the email script they had received had an impact on their prescribing patterns.

## Results

In the 4 weeks prior to intervention, there were 41 patients who met inclusion criteria. On review of these charts, 68% of patients were taking opioids on the day of discharge. Within the same group of patients, 90% were discharged home with a prescription for oxycodone, with the average number of pills being 14 tablets of 5mg oxycodone per patient. In the 3 week period after the intervention, there were 28 patients who met inclusion criteria. When these charts were reviewed, 71% of patients were taking opioids on the day of discharge and 96% of patients were discharged home with opioid prescriptions.
The average number of pills prescribed after intervention was 11 tablets of 5mg oxycodone per patient. The median number of pills prescribed decreased from 14 to 10 with the interquartile range going from 14-20 down to 9.5-14.

| | Pre intervention | Postintervention |
|---|---|---|
| % of patients with opioid Rx | 90.2 | 96.4 |
| Mean # of pills prescribed per patient | 14 | 11 |
| Median # of pills prescribed per patient (25-75% IQR) | 14 (14-20) | 10 (9.5-14) |

Table 1: Change in opioid prescribing after provider education

## Discussion

Overall, this intervention did not show a decrease in the percentage of patients who were discharged home with opioid prescriptions, but it did show a decrease in the average number of tablets prescribed per person. The most commonly identified barrier was that often the person performing discharge medication reconciliation may not have been the same provider who performed morning rounds on the patient. This may have limited the ability for a joint decision making conversation to affect discharge prescriptions. A possible next intervention could be to add the patient's inpatient opioid usage and plan for discharge medications to the routine morning rounding note so that it is documented in the chart, which may aid in having medication reconciliations more in line with inpatient usage.
Another factor that impacted the outcomes of our study is the coronavirus pandemic, which occurred during our period of data collection. Short post-op stays were strongly encouraged, meaning many patients were still taking narcotic pain medications on the day of their discharge who ordinarily may not have been.
An additional intervention that may affect discharge prescriptions of opioid medications is the implementation of ERAS post-op protocol amongst cesarean section patients. This intervention is currently being undertaken by another member of our department for a separate quality improvement initiative. As the main objective of this project is to decrease inpatient narcotic use, it will presumably also lead to a decrease in discharge opioids.

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## References

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