

# Are we “pushing” our patients toward addiction? A preliminary post-cesarean survey to quantify narcotic requirements for pain control

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# Disclosures: None

# Introduction:

- ❖ It is widely reported that **opioid abuse is the leading cause of drug overdose deaths** in the United States, with studies reporting **over 40% of these deaths attributed to opioids legally prescribed** by healthcare providers (1-3).
- ❖ In women specifically, **death from opioids has increased five-fold** since 2006 (4).
- ❖ A third of patients who deliver via cesarean delivery are prescribed opioids as the main form of post-surgical pain management (4).
- ❖ Taking opioids for an extended period of time places patients at risk for addiction, with some studies finding the **greatest increase in risk occurring after just five days of consecutive use** (5).

# Background:



- ❖ Currently at Memorial Health Center, **the average cesarean hospital stay is 2-3 days** during which patients receive narcotics while inpatient
- ❖ Patients are then **discharged with 24 pills** which is **another 6 days of dosing**
- ❖ The CDC reports that since 2009, an increasing proportion of drug overdose deaths have been caused by opioids, which accounted for 70.6% of all drug overdose deaths in 2019.<sup>1</sup>
- ❖ ACOG recommends a more individualized approach to post-operative pain management comprising of non-opioids (i.e., NSAIDs, acetaminophen), opioids, and non-pharmacological therapies for women after childbirth.
- ❖ Available literature has indicated providers can prescribe less opioids without negatively impacting their patient's pain management.
- ❖ Previous studies have shown that when given the choice, most women prefer to be prescribed a smaller number of opioid pills.

# Objective:

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- ❖ To evaluate post-operative opioid use after cesarean delivery to determine if over-prescribing occurs at our institution

# Study Design:



- ❖ This study was a **phone survey** completed of **postpartum patients who had undergone a Cesarean section at Memorial Health University**, a 612 bed University-affiliated Community Hospital and Referral Center.
- ❖ Patients who underwent a cesarean section from **October 2022- February 2023 were called** to answer a **6-question survey**.
- ❖ **58% of patients agreed to answer the phone survey.** Patients who had not responded on the first call were re-called until they agreed or declined to participate. Only one patient began the survey and did not complete the survey and this response was omitted.
- ❖ The patients received prenatal care from multiple clinics in the Savannah area including the High-Risk OB group, the Provident OBGYN group, the Lexington Women's clinic, the Curtis Cooper clinic, and the Family Medicine resident clinic.
- ❖ Responses were recorded and evaluated using Qualtrics Survey Software.

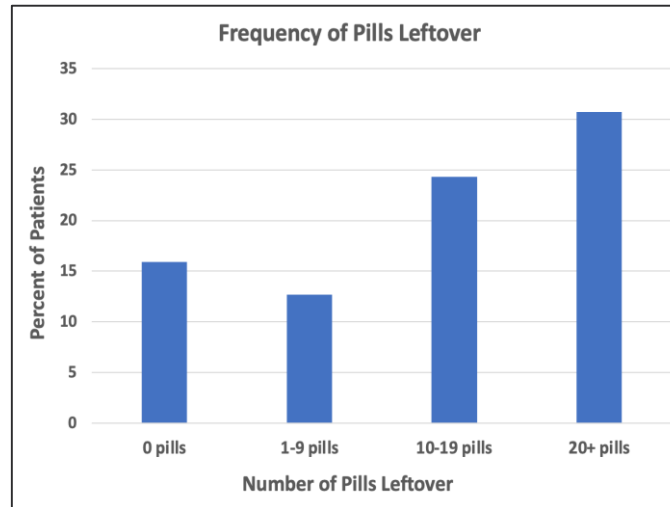
# Survey questions:



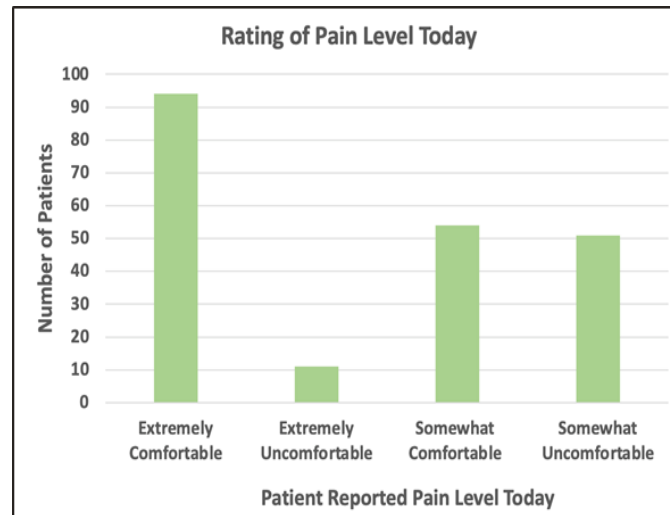
1. Your initials
2. Date of birth
3. Date of Cesarean section
4. Did you fill your oxycodone-acetaminophen prescription?
5. How many pills do you have left?
6. Describe your pain level today

# Results

- Out of the 251 patients interviewed, **15.9% did not fill their oxycodone-acetaminophen prescription**
- Out of the 210 patients who did fill their oxycodone-acetaminophen prescription, **the average pills left over was 13.06 pills (SD = 8.970).**



- **Figure 1.** Graph showing the breakdown of pills left over among post-operative cesarean patients. Number of pills were grouped into four categories for simplification. Valid percent of patients in the four categories (0 pills, 1-9 pills, 10-19 pills, 20+ pills) were 19%,15.2%, 29.0%, and 36.7% respectively. The largest percent of patients had 20+ pills leftover, with the second largest percent of patients having 10-19 pills left.



- **Figure 2.** Graph showing the self-reported pain level of patients on the day the survey was conducted. 0 patients reported they were “neither comfortable or uncomfortable”. Remaining amount of patients reported they were extremely comfortable (n=94), extremely uncomfortable (n=11), somewhat comfortable (n=54), and somewhat uncomfortable (n=51).



# Results

- We created a new variable which collapsed the 4 categories of pain level into 2. Then we ran a t-test to compare the mean number of pills left between two groups
- Patient who were **Extremely or Somewhat Comfortable** had an **average of 14.63 pills leftover** (SD = 8.374).
- Patients who were **Extremely or Somewhat Uncomfortable** had an **average of 9.32 pills left over** (SD = 9.301).
- Using an t-test for equality of means, we found the differences between these two groups to be statistically significant ( $p < .001$ ). An ANOVA test was also done comparing the four original categories of pain level, and found the ‘between group’ differences were also statistically significant ( $p < .001$ ).
- Lastly, using Bonferroni’s Post Hoc Test, we looked more precisely to see why these differences were significant
- **It demonstrated that the difference in pills left over were strongest between both “Extreme” groups, between Extremely Uncomfortable and Somewhat Comfortable, and between Extremely Comfortable and Somewhat Uncomfortable.**

Pain Level Today (I)	Pain Level Today (J)	Mean Difference(I-J)	Std. Error	Significance
Extremely Uncomfortable	Somewhat Uncomfortable	-7.355	2.825	0.059
	Somewhat Comfortable	-9.746	2.811	0.004
	Extremely Comfortable	-12.28	2.708	<0.001
Somewhat Uncomfortable	Extremely Uncomfortable	7.355	2.825	0.059
	Somewhat Uncomfortable	-2.391	1.659	0.907
	Extremely Comfortable	-4.926	1.478	0.006
Somewhat Comfortable	Extremely Uncomfortable	9.746	2.811	0.004
	Somewhat Uncomfortable	2.391	1.659	0.907
	Extremely Comfortable	-2.535	1.451	0.493
Extremely Comfortable	Extremely Uncomfortable	12.28	2.708	<0.001
	Somewhat Uncomfortable	4.926	1.478	0.006
	Somewhat Comfortable	2.535	1.451	0.493

**Figure 3.** Output from Bonferroni’s Post Hoc Test comparing the differences in the mean number of pills leftover between each pain level group.

# Conclusion:

- ❖ After receiving a standard 24 pill supply of oxycodone-acetaminophen at the time of discharge from Memorial Medical Center
- ❖ The average total number of pills consumed was 9.6, with an average of 14.4 pills unused
- ❖ The average post-cesarean hospital stay is 2-3 days, during which patients receive narcotics in addition to NSAIDs and acetaminophen for pain
- ❖ Using a standard dosing schedule of 1 oxycodone-acetaminophen tablet every 6 hours, 24 pills will provide an additional 6 days of pain relief.

# Conclusion:

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- ❖ Our preliminary results indicate that a typical patient will take narcotics for only 2-3 days post-cesarean section and highlights the abundance of narcotics prescribed and the potential for iatrogenic narcotic addiction
- ❖ We plan to prospectively study the post-discharge prescription of 10 narcotic tablets and patient satisfaction as well as requests for additional narcotic pain medication.

# References:



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# Questions?