

UNIVERSITY *of* WASHINGTON

# Postoperative Obstetric Opioid Prescribing

Obstetric Consensus Conference

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\*Only new added slides pertinent to opioid teaching provided. Complete ERAS teaching slides not included

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## CITATION

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Available at <http://providerresource.uwmedicine.org/women-s-health>

## BACKGROUND

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Recreational use of opioids, the powerful class of analgesic drugs which includes both illicit and prescription medications, has soared over the past two decades.<sup>1</sup> There are 3 principal classes of opioid receptors, and each drug has specific binding properties and affinities which are responsible for their effects. In addition to their analgesic properties, opioids have a number of side effects, including sedation, itchiness, nausea, constipation, respiratory depression and euphoria, the latter of which is responsible for this class of drug's recreational appeal, with an estimated 4 million users in the United States each year.<sup>2</sup>

The current epidemic of opioid use and abuse began in the 1990s, as a dramatic increase in the prescribing of opioids for chronic pain spurred a parallel increase in overdose deaths from these medications.<sup>3</sup> The rate of opioid overdose deaths more than tripled between 2000 and 2013. The national death rate attributable to opioids in 2015 was 16.3/100,000 population; the death rate in Washington state was slightly lower than the national average, at 14.7/100,000.<sup>4</sup>

In a concerning association, the rise in opioid attributable deaths has closely paralleled a marked increase in the use of opioid medications for the management of acute and chronic pain over the past three decades; in 1991 there were 76 million opioid prescriptions written in the United States; by 2013 that number had nearly tripled to 207 million.<sup>5</sup> The literature clearly demonstrates that physicians routinely overprescribe post-procedural opioids, and that this over-prescription results in increased rates of misuse both by the individuals to whom they are prescribed, but also to the broader community through diversion.<sup>6,7,8</sup> A retrospective cohort study found that patients who received an opioid prescription within 7 days of surgery were 44% more likely to be long-term opioid users one year post-operatively than those who were not prescribed opioids.<sup>9</sup> Obstetricians are not immune from the practice of over-prescribing. A review of Medicaid claims data found that 12% of opioid-naïve women who underwent an uncomplicated vaginal delivery filled a prescription for opioid medication within 5 days of delivery; 14% of those filled a second prescription in the subsequent 60 days.<sup>10</sup>

Several recent publications in the obstetric literature have sought to characterize prescribing patterns after cesarean section. The emerging theme is that obstetricians routinely prescribe more medication than patients use, and that extra medication remains unsecured in patients' homes.<sup>11-15</sup>

A prospective recent multi-center study followed 720 opioid-naïve women who underwent uncomplicated cesarean delivery; 85% filled an opioid prescription postpartum, with a median of 40 tablets of oxycodone dispensed. The median number of tablets consumed was 20. The researchers found that the amount of tablets consumed was positively correlated with the number of tablets prescribed, independent of pain scores or patient characteristics. Ninety-five percent of those with leftover tablets at the completion of the study had not disposed of them.<sup>11</sup> Similarly, a prospective single-institution series of 251 women after uncomplicated cesarean section found that 83% required opioids after discharge, and 17% were still using them more than 2 weeks postpartum. The median number of tablets dispensed was 30; 75% of participants had unused tablets on completion of the study, 63% of whom were storing those tablets in an unsafe location in the home.<sup>12</sup> A recent analysis of claims data sought to estimate the impact of post-cesarean opioid use, and found that 0.36% of opioid-naïve women will become persistent opioid users in the year after cesarean delivery. This translates into over 450,000 women annually.<sup>13</sup>

In the wake of this emerging literature, there has been considerable interest in minimizing the use of opioids postpartum.<sup>14</sup> A recent prospective cohort study reported on the use of a shared decision-making aid which

educated patients on anticipated post-cesarean pain, risks and benefits of opioids and non-opioids, and provided normative data on outpatient opioid use after cesarean delivery.<sup>15</sup> The authors found that women who went through this process elected for 50% fewer tablets at the time of discharge, with high levels of satisfaction, and an 8% refill request rate.

Notably, in the institutions where these studies were performed, the standard length of postpartum stay is 4 days after cesarean delivery. This is markedly different from our institution, where the majority of patients are discharged on post-operative day 2 or 3. Internal University of Washington data collected by Dr. Kavita Vinekar on obstetrical provider's post-cesarean provider practices demonstrated that for residents, generalists, and MFMs, the median number of 5mg oxycodone tablets prescribed on discharge after cesarean delivery was 30, with a range of 10 to 60 tablets.

After our review of the epidemiology of the opioid epidemic, the role of physicians in the rise of recreational opioid use in the United States, and the prescribing practices of obstetricians postpartum, we are inspired as a group to evaluate our University of Washington postpartum prescribing practices. It is our hope that in so doing we can better understand our patients' needs, collaborate with them to meet these needs responsibly, and to work towards a culture of shared decision making and appropriate opioid prescribing.

The following are our proposals for postoperative obstetric opioid prescribing. This consensus statement is specific to uncomplicated opioid-naïve post-cesarean patients and will not address postpartum opioid use for chronic antepartum opioid users, complicated cesarean or vaginal deliveries or patients with higher order obstetric perineal lacerations.

## PATIENT EDUCATION

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One of our goals is to improve patient education in both the pre-operative, and post-operative settings. The recent adoption of the Enhanced Recovery After Surgery (ERAS) pathway has formalized pre-operative teaching for a majority of patients who undergo planned cesarean section. We have created additional slides for inclusion in the ERAS teaching curriculum that provide anticipatory guidance around post-operative pain expectations, the medications that will be prescribed for their use, the risks and benefits of those medications, information on tapering opioids, and lastly information about safe disposal of extra opioid tablets (Appendix 1). A pared-down slide deck has been created for those patients undergoing scheduled cesarean delivery who are not ERAS eligible. These slides will be made available to the nursing staff who perform outpatient ERAS teaching in the clinic setting. We also plan to expand the formalized ERAS slide set for use on the antepartum service for pre-operative teaching for our inpatients.

Patients will receive additional postoperative education around opioid use, tapering, storage and disposal from the inpatient obstetric anesthesia residents at the time of their post-operative anesthesia rounding (Appendix 2). Some features of this postoperative teaching include education regarding alternating acetaminophen and NSAID use postpartum to avoid peaks and troughs in non-opioid medication levels. A handout has been created to help guide this resident teaching.

Finally, we will consider ways to incorporate this information into the new UW Baby App.

## CLINICAL PRACTICE RECOMMENDATIONS

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We will be making subtle, yet we hope meaningful, changes to the standard post-cesarean order set, which will be designed as pre-selected options, to reflect the following:

- Standing NSAID (ketorolac x 24h, then ibuprofen) and acetaminophen throughout admission. The order set will automatically stagger these medications so as to avoid peaks and troughs
- Oxycodone 5mg PO Q3 hours PRN pain
- Oxycodone 5mg PO PRN breakthrough pain x 3
- If a patient requires more than 3 doses of supplementary oxycodone, the RN and responding resident will discuss the patient's clinical status, any risk factors for poor pain control, and strategies to optimize patient's pain control. There will be a pre-selected nursing communication to prompt this team review if the patient reaches the 3<sup>rd</sup> breakthrough dose
- Additionally, the 96-hour pain medication expiration which was previously part of the order set has been removed

There are no order set changes for the initial PACU recovery orders as written by obstetric anesthesia.

Given that available literature demonstrates similar pain control in patients discharged with fewer opioid tablets<sup>11</sup>, we have departmental consensus that for opioid-naïve patients with routine postoperative courses, **the standard discharge prescription is no more than THIRTY 5mg tablets of oxycodone.** This is consistent with the current practice of the majority of our providers.

## FUTURE RESEARCH

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Recently published data demonstrated that decreasing the amount of opioids prescribed on discharge, in many cases to as few as twenty 5mg tablets of oxycodone does not compromise patients' report of pain control or satisfaction; however, these studies were performed at institutions where the typical post-operative length of stay is four days. As patients at the University of Washington are routinely discharged as early as post-operative day two, a decrease to twenty 5mg tablets may not be appropriate for our patient population. We anticipate our patients' outpatient medication use may be greater, as it reflects use on postoperative days 2-4, when pain scores are typically highest. To determine the appropriateness of a smaller amount of discharge medication we intend to perform a pilot research project consisting of a prospective convenience sample of 30 patients with planned UW follow-up who undergo uncomplicated cesarean section and have routine recovery. We will recruit 15 women who undergo scheduled cesarean delivery, and 15 who undergo unscheduled labored cesarean delivery. Our aim is to quantify the average number of tablets of oxycodone used after discharge following cesarean delivery. We will collect pain scores and medication use in the hospital via review of the medical record, and then follow-up with patients by phone at 1 and 2 weeks postpartum. Finally, patients will be asked to bring their prescriptions to their 6 week postpartum visit to have any remaining tablets counted, and then encouraged to dispose of their medication at the disposal kiosk at the pharmacy. IRB approval will be sought for this study prior to its initiation.

Once the results of the study are available, we will be able to use this data to better counsel patients about the typical range of postoperative pain scores and medication use in our University of Washington patient population. We will revisit our standard discharge prescription of 30 tablets after reviewing typical patient use, and we will look for further opportunities to engage in shared decision making with our patients regarding their postoperative opioid prescriptions.

## DISCLAIMER

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*This consensus document is to be used as a guideline for practice management. It is generated by expert review from the Department of Obstetrics and Gynecology, Division of Obstetric Anesthesia and Labor and Delivery Nursing.*

# APPENDIX 1

## OUTPATIENT PREOPERATIVE EDUCATION MATERIALS: PREOPERATIVE ERAS TEACHING\*

*\*Only new added slides pertinent to opioid teaching provided. Complete ERAS teaching slides not included*

### Pain Control

Most times, medicine you receive during surgery will help control pain for 12 to 18 hours after surgery.

You will also receive:

- Acetaminophen (Tylenol)
- A nonsteroidal anti-inflammatory drug (NSAID) such as ibuprofen (Advil) or ketorolac
- Opioid pain medicine (Oxycodone or Hydromorphone)

Acetaminophen and ibuprofen will be your main pain medicines. Opioids will be given only if needed.

Depending on your medical history, particularly if you have problems with your kidneys or liver, your doctor may recommend different medications.



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## Your Pain Medications

Medication	Effect on Pain	Side Effects
Tylenol (Acetaminophen)	Moderate	Minimal Overdose can cause liver failure
Motrin (Ibuprofen)	Strong	Heartburn/upset stomach Water retention Overdose/long-term use can cause kidney damage or stomach ulcers
Oxycodone (opioid)	Strong	Drowsiness Constipation Itching Nausea and vomiting Dizziness Overdose/long-term use can cause oversedation, addiction, or death

These medications are safe in breastfeeding.

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## Discharge Medicines

When you leave the hospital, you will keep taking these medicines at home:

- Pain medicines:
  - Acetaminophen (Tylenol)
  - Ibuprofen (Advil, Motrin)
  - Opioids, if needed
- Bowel medicines (to prevent constipation)
- Birth control (if desired)



Depending on your medical history you may be prescribed different medications.

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## Pain Control at Home

- Take your pain medicines as prescribed.
- You should continue to take Tylenol and ibuprofen regularly, if prescribed. Unless your doctor tells you otherwise:
  - Take up to 1000mg of Tylenol every 6 hours
  - Take up to 600mg of ibuprofen every 6 hours
  - Stagger these medications so that every 3 hours you are able to take one or the other



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## Scheduled Medication At Home

Time	Tylenol	Ibuprofen
12:00 am	Tylenol 1000mg	
3:00am		Ibuprofen 600mg
6:00am	Tylenol 1000mg	
9:00am		Ibuprofen 600mg
12:00pm	Tylenol 1000mg	
3:00pm		Ibuprofen 600mg
6:00pm	Tylenol 1000mg	
9:00pm		Ibuprofen 600mg

If you continue to have severe pain despite taking these scheduled medications, you can take 5mg of oxycodone to help manage your pain.

You should wait at least 3 hours between doses of oxycodone.

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## Oxycodone Use at Home

If you need additional pain medication, you can take 2.5 - 5mg of oxycodone every 3 hours. If you are taking opioids:

- Do not drive while you are taking opioids
- Oxycodone can make you feel too sleepy or dizzy to safely care for your baby; make sure there is another trusted adult to help you if you feel this way while taking your medication.



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## Discontinue Oxycodone Safely

- Taper (decrease) your oxycodone dose over the first week you are home. First start taking a lower dose (i.e. half a pill), then allow more time between doses until you are no longer taking any opioids.
- You should store your oxycodone in a secure, locked location, out of reach of children and away from other family members.
- When you are done with your oxycodone, you should dispose of it safely. You can do this at many pharmacies, including UWMC and UW Roosevelt.

More locations available at:

<https://kingcountysecuremedicinereturn.org/find-a-drop-box/>

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## APPENDIX 2

### INPATIENT POSTOPERATIVE EDUCATION MATERIALS: RECOVERING FROM YOUR C-SECTION

## Recovering From Your C-Section

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## Recovery in Postpartum



- We encourage you to walk often, with help. Walking will help you heal. Plan to walk in the halls several times a day.
- Your appetite may be lower after surgery. You may need to eat smaller meals at first.
- We will help you work on breastfeeding. Ask for lactation services staff to visit, if needed.
- We will remove your Foley catheter.

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# Pain Control

Most times, medicine you receive during surgery will help control pain for 12 to 18 hours after surgery.

You will also receive:

- Acetaminophen (Tylenol)
- A nonsteroidal anti-inflammatory drug (NSAID) such as ibuprofen (Advil) or ketorolac
- Opioid pain medicine (Oxycodone or Hydromorphone)



Acetaminophen and ibuprofen will be your main pain medicines. Opioids will be given only if needed.

Depending on your medical history, particularly if you have problems with your kidneys or liver, your doctor may recommend different medications.

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# Your Pain Medications

Medication	Effect on Pain	Side Effects
Tylenol (Acetaminophen)	Moderate	Minimal Overdose can cause liver failure
Motrin (Ibuprofen)	Strong	Heartburn/upset stomach Water retention Overdose/long-term use can cause kidney damage or stomach ulcers
Oxycodone (opioid)	Strong	Drowsiness Constipation Itching Nausea and vomiting Dizziness Overdose/long-term use can cause oversedation, addiction, or death

These medications are safe in breastfeeding.

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## Other Medicines

You may also receive these other medicines while you are in the hospital:

- Bowel medicines (constipation is common, especially if you take opioids)
- Anti-nausea medicines
- Anti-heartburn medicines
- RhoGAM (if needed)
- Birth control (if desired)



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## Going Home



Most women go home 2 days after their C-section. Before you leave the hospital, we want to make sure you can:

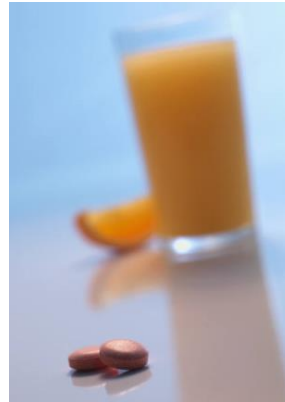
- **Walk** without help
- **Eat** without nausea or vomiting
- **Urinate** (pee) as usual
- **Control your pain** with only pain pills

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## Discharge Medicines

When you leave the hospital, you will keep taking these medicines at home:

- Pain medicines:
  - Acetaminophen (Tylenol)
  - Ibuprofen (Advil, Motrin)
  - Opioids, if needed
- Bowel medicines (to prevent constipation)
- Birth control (if desired)



Depending on your medical history you may be prescribed different medications.

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## Pain Control at Home

- Take your pain medicines as prescribed.
- You should continue to take Tylenol and ibuprofen regularly, if prescribed. Unless your doctor tells you otherwise:
  - Take up to 1000mg of Tylenol every 6 hours
  - Take up to 600mg of ibuprofen every 6 hours
  - Stagger these medications so that every 3 hours you are able to take one or the other



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## Scheduled Medication At Home

Time	Tylenol	Ibuprofen
12:00 am	Tylenol 1000mg	
3:00am		Ibuprofen 600mg
6:00am	Tylenol 1000mg	
9:00am		Ibuprofen 600mg
12:00pm	Tylenol 1000mg	
3:00pm		Ibuprofen 600mg
6:00pm	Tylenol 1000mg	
9:00pm		Ibuprofen 600mg

If you continue to have severe pain despite taking these scheduled medications, you can take 5mg of oxycodone to help manage your pain.

You should wait at least 3 hours between doses of oxycodone.

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## Self-care at Home

- Take walks. Walking will help your body heal.
- Eat healthy foods and drink plenty of water.
- You may shower. Let the water run gently over your incision. Do **not** scrub your incision.
- You will have white tape (called Steri-strips) over your incision. If they do not fall off on their own, **please remove them after 1 week.**



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## Oxycodone Use at Home

If you need additional pain medication, you can take 5mg of oxycodone every 3 hours.

If you are taking opioids:

- Do not drive while you are taking opioids
- Oxycodone can make you feel too sleepy or dizzy to safely care for your baby; make sure there is another trusted adult to help you if you feel this way while taking your medication.



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## Discontinue Oxycodone Safely

- Taper (decrease) your oxycodone dose over the first week you are home. First start taking a lower dose (i.e. half a pill), then allow more time between doses until you are no longer taking any opioids.
- You should store your oxycodone in a secure, locked location, out of reach of children and away from other family members.
- When you are done with your oxycodone, you should dispose of it safely. You can do this at many pharmacies including UWMC and UW Roosevelt.

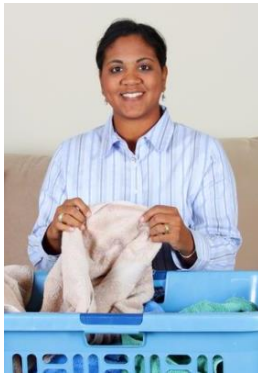
More locations available at:

<https://kingcountysecuremedicinereturn.org/find-a-drop-box/>

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## Activity Restrictions



### For 6 weeks after your C-section:

- Limit your household chores. Do **not** lift anything that weighs more than 10 pounds. (A gallon of milk weighs almost 9 pounds.) Ask for help as needed.
- Do **not** use tampons, have sex, or put anything else in your vagina.

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## Warning Signs

### Call us if you have any of these problems:

- Fever higher than 100.4°F (38°C)
- Chills
- Nausea or vomiting, or both
- Redness, warmth, or drainage at your incision
- Severe pain
- Heavy bleeding from your vagina
- Constipation that lasts more than 3 days



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