Guidelines for Peripartum Pain Management in Opioid Dependent Women

Principles of Management

Pregnant women with opioid dependence are encouraged to use opioid replacement therapy throughout the pregnancy, as this is associated with improved pregnancy outcomes and decreased risk of relapse to substances of abuse compared with treatment that emphasizes abstinence. Buprenorphine and methadone are the two available agents for opioid replacement in pregnancy.

In general, patients on opioid replacement therapy will require higher doses of short-acting opioids for acute pain management after operative delivery, however they may have decreased need for analgesia after vaginal delivery due to the analgesic properties of buprenorphine. The need for greater amounts of opioids after operative delivery is both due to higher tolerance as well as, in the case of opioid replacement with buprenorphine, the high affinity of buprenorphine for the opioid receptor, which partially blocks access for short acting opioids at typical doses.

Appropriate management of acute pain in post-operative patients receiving opioid replacement therapy does not increase the risk of relapse to substances of abuse, and is important to ensure that patients ambulate soon, which decreases the risk of post-operative complications such as deep venous thrombosis and atelectasis/pneumonia.

Women with a history of substance abuse frequently have underlying mental health conditions, including anxiety, which may make management of peripartum pain more challenging.

Recommendations

In Labor:

1) Many opioid dependent women desire epidural pain management in labor. This is generally the most effective form of pain control, as a significant portion of the effect is due to local anesthetic action and is not affected by use of opioid replacement therapy. There is not a contraindication to the inclusion of the usual low-dose fentanyl (2-5 mcg/mL) in the epidural infusion of women on either buprenorphine or methadone.
2) Occasionally women may present in labor and with opioid withdrawal concurrently. If the patient desires methadone, it can be started at 20-30mg/day, depending upon the amount of opioids of abuse used daily, as per protocol. Fentanyl can still be used in labor pain management as long as there are no signs of over-sedation. If the patient desires buprenorphine, a consultation should be obtained from a physician familiar with the challenges of buprenorphine induction. In overview, the Clinical Opiate Withdrawal Scale (COWS) should be administered, and the patient may receive the first dose of buprenorphine when in moderate withdrawal per protocol. Fentanyl or other opioids should not be used until the dose of buprenorphine is reached which controls withdrawal symptoms and cravings (generally determined after 12 to 24 hours of treatment, though may be shorter in women who are reinitiating buprenorphine after a

period of time off but without relapse to other opioids), as this makes withdrawal symptoms difficult to interpret and could result in precipitation of withdrawal with a subsequent buprenorphine dose. Epidural analgesia is the preferred choice for labor pain management in this scenario.

Post-Partum in General:

1) The use of around-the-clock scheduled ibuprofen and acetaminophen are important tools for postpartum pain control in women who have had a cesarean delivery or tubal ligation. Patients with hepatitis C or other underlying liver disorders should receive no more than 2000mg of acetaminophen daily. Women who have had a vaginal delivery and are on buprenorphine have been shown to have a lower requirement for NSAIDs, and ibuprofen and acetaminophen should be ordered as prn medications in these patients. Intravenous paracetamol (1000 mg) and/or ketorolac (30 mg) may be used in the PACU for women who have had a cesarean delivery or tubal ligation.
2) Women should continue their opioid replacement therapy in labor and the postpartum period. Dividing methadone bid and buprenorphine qid may enhance their contribution to pain control. Consideration can be given for increasing the buprenorphine dose to as much as 32mg divided qid (i.e. 8mg q 6 hours) for the first 24-48 hours after delivery to improve pain management, however the dose should return to the pre-delivery dose following this period of time.

Following Vaginal Delivery:

1) Opioid pain management is not generally required following uncomplicated spontaneous or operative vaginal delivery.
2) Patients with 3rd or 4th degree perineal lacerations may encounter negative effects from opioid pain medication due to increased constipation. If regional anesthesia is used for the repair or was used in labor, intrathecal morphine may be considered in this situation, with a plan to avoid ongoing oral opioids for pain management. Opioid replacement therapy should be continued in an uninterrupted fashion.

Following Cesarean Section or Tubal Ligation:

1) Intrathecal morphine injection at the time of administration of spinal anesthesia has become the standard for post-cesarean pain management (not used for tubal ligation). The effectiveness of morphine injected into the spinal (or epidural catheter) at the time of cesarean section for post-operative pain management in women on buprenorphine for opioid replacement therapy is unclear. Since these patients frequently require additional parenteral opioids, many anesthesiologists avoid the use of neuraxial (spinal or epidural) morphine due to concerns about respiratory depression and over-sedation. When intrathecal or epidural morphine is used, the anesthesiology team manages all opioids for the first 24 hours post-operatively (except methadone and buprenorphine). If a patient seems to need additional narcotic pain management during this time, the anesthesiologist must be consulted.

2) In patients who have an epidural catheter in place for labor analgesia, anesthesia for cesarean delivery can frequently be achieved by dosing the epidural with a higher concentration of the local anesthetic. While continuing their maintenance dose of methadone or buprenorphine, postoperative analgesia can be achieved by continuing the epidural infusion of a low concentration local anesthetic. Postpartum care must then occur on a nursing unit which is approved for the management of a continuous epidural infusion.
3) As part of a multimodal analgesic regimen, other regional analgesic techniques may also be effective. The transversus abdominis plane block (TAP block) has been shown to improve postoperative analgesia after cesarean delivery. Although very little research has been done in women on opioid replacement therapy, this block may be an alternative in some patients who did not receive intrathecal or epidural morphine.
4) Once women tolerate oral intake, beginning an oral opioid such as oxycodone is most effective, as the duration of action is 4-6 hours, rather than the shorter duration of intravenous agents such as fentanyl, morphine, and hydromorphone. This can be initiated in the recovery room or a few hours later on the postpartum floor for stable patients who did not receive neuraxial morphine. Given that typical doses of oxycodone for non-opioid dependent women for post-operative pain are 5-10mg every 4-6 hours, opioid dependent women will often need higher doses in the range of 15-20mg every 4-6 hours. One approach is to initially order 10mg q4h prn moderate to severe pain, with 5mg doses available prn breakthrough pain. If the patient essentially always requests the extra 5mg dose, the baseline dose can be increased to 15mg every 4-6 hours, with 5mg doses available again for breakthrough pain. In this way the dose is titrated to effect quickly.

   Women who undergo cesarean section with general anesthesia may do best initially with hydromorphone PCAs, however transitioning to oxycodone as soon as they tolerate oral intake will usually result in better pain control. A hydromorphone PCA for an opioid dependent patient can be started at a dose of 0.2mg q 10 minutes on demand, with a one-hour lockout of 1mg. Avoiding using a basal rate decreases the risk of over-sedation. Continuous pulse oximetry can be considered due to the potential need for larger doses to achieve adequate pain control. Once oral medications are initiated, a starting dose of oxycodone 10mg q 4 hours is recommended.

At the Time of Discharge from the Hospital:

1) Women should receive prescriptions for tid ibuprofen and qid acetaminophen, with dosing modified for patients with hepatitis C. In addition, postoperative patients should receive a prescription for sufficient oxycodone to last until their follow up appointments in clinic.
2) For women who have had a cesarean delivery, an appointment is recommended in 7-10 days so that the amount of oxycodone prescribed can be limited to what is needed during this period of time.
3) It is reasonable to expect that patients who have had a cesarean delivery will continue using approximately the same amount of oxycodone in the first 2-4 days at home as

they were using during the last day of hospitalization, with use decreasing over the following 1-2 weeks, and no further oxycodone needed after 3 weeks postpartum, barring surgical complications such as wound infections. It is important to discuss with patients the anticipated process of weaning opioid pain medications.

4) Women on buprenorphine should be given a prescription for buprenorphine, not buprenorphine-naloxone (Suboxone), upon hospital discharge, as patients with private insurance may require a prior authorization to be processed before changing to the other agent. Sufficient medication should be prescribed to last until the follow up appointment, taking into account the amount of medication prescribed at the last appointment before admission. Dose increases for patients with private insurance should be communicated with a Milagro nurse so that insurance companies can be contacted in a timely manner for prior authorization. (Prior authorization for buprenorphine and buprenorphine-naloxone is no longer required by Medicaid).
5) Some private insurance companies will refuse to pay for oxycodone when patients are receiving prescriptions for buprenorphine, despite documentation that the oxycodone is being appropriately used for post-operative pain management. Medicaid patients have not reported this problem recently. Patients should be made aware of this possibility so that they can plan for purchasing medication if necessary, and a Milagro outpatient nurse should also be notified so that contact with the private insurance company and the pharmacy can be made as soon as possible. This policy will likely change with further advocacy by providers and nurses caring for patients treated with opioid replacement therapy.

Example of how to calculate amount of opioids to be prescribed at discharge:

A woman with a history of oxycodone addiction who is now on buprenorphine will be discharged on post-op day four following cesarean section and has been using 20mg of oxycodone every 6 hours for the past two days, along with acetaminophen and ibuprofen. She will be seen in Milagro clinic in 10 days. She may require 80mg of oxycodone each day for the next 5 days and smaller amounts for a few more days after that, which should be sufficient to get her to her appointment. She can be discharged with a prescription for oxycodone 10mg tablets, 50-60 tablets.

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