

# Neuraxial dexmedetomidine has multiple benefits in obstetric anesthesia.

## Practical Considerations for Implementing Neuraxial Dexmedetomidine in an Obstetric Anesthesia Practice: One Group's Experience

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### Background

It was discovered that the post-partum nurses were unable to follow the respiratory monitoring orders, after duramorph administration, due to supply and staffing issues. The anesthesia group was unwilling to continue using duramorph, and after a literature review, decided to trial intrathecal dexmedetomidine as a replacement. The response to dexmedetomidine among the patients, staff, and anesthesia providers was overwhelmingly positive. After successful implementation of intrathecal dexmedetomidine for cesarian section, the group began using it for labor epidurals as well. The providers were given a summary of the dosages studied in the literature, but it was left to their discretion how to dose and utilize it. At this time, thousands of doses of neuraxial dexmedetomidine have been given and the providers have all come to use very similar doses and strategies for administration.

### Cesarian Section

- Anesthesia providers felt the benefits included superior analgesia for visceral pain from uterine manipulation, anxiolysis, reduction of shivering, and lack of side effects
- The most common problem, early on, was prolonged motor block (up to 6 hours), which has been addressed by reducing the dosage of bupivacaine.
- Current dosages are 9-11 mg bupivacaine (either 0.75% or 0.5%) with 5-10 mcg dexmedetomidine.
- Average length of motor and sensory block is around 3 hours with analgesia lasting up to 24 hours.
- The group started performing TAP or QL blocks post-operatively. Despite the literature stating that dexmedetomidine was equivalent to duramorph for post-operative pain control, it was universally felt to be slightly inferior and that adding regional anesthesia enhanced the patients recovery.

### Labor Epidural

- Dexmedetomidine is commonly used as the sole agent for a loading dose when inserting an epidural.
  - Combined Spinal Epidural 5-10 mcg intrathecal
  - Continuous Labor Epidural 25-50 mcg epidural
- Benefits include lack of motor block so the patient can position themselves back in the bed, anxiolysis, and fewer complaints of intense pressure.
- If a re-dose is requested, or if the patient requires cesarean section, providers often bolus an additional 25-50 mcg with the local anesthetic.
- Due to issues with adding to computerized order sets, it is not commonly added to the infusions yet.
  - For patients with opioid tolerance or chronic pain, 0.5 mcg/ml is added to the infusion