EPIDURAL: OBSTETRIC REGIONAL ANALGESIA/ANESTHESIA – L&D

PURPOSE:

To outline the management of the obstetric patient receiving regional analgesia/anesthesia via a continuous epidural infusion/intermittent injection.

SUPPORTIVE DATA:

Epidural anesthesia involves the placement of a temporary catheter into the epidural space and injection of local anesthesia/analgesia. It may be used for the duration of labor, Cesarean sections, and post-partum tubal ligations.

Epidural infusions, catheters, and occlusive dressings are managed under the direction of the Department of Anesthesia. NO OTHER PHYSICIAN OR NURSE SHOULD ACTIVATE OR MANIPULATE THE CATHETER AND/OR INFUSION. However, a nurse may discontinue the infusion in the event of an emergency (see #10 and #11 on this protocol).

Opioid analgesics may be infused alone or in combination with local anesthetic for synergistic effect. Medications commonly used for regional analgesia/anesthesia during labor via this route include: bupivacaine, ropivacaine, fentanyl, morphine (Duramorph), and sufentanil. The duration of and extent of analgesia/anesthesia is dependent upon the amount, concentration and type of medication as well as the level of catheter placement.

Duramorph given via the epidural/intrathecal routes puts the patient at risk for respiratory depression and decreased level of consciousness (LOC) for a longer period of time than other epidural medications. The peak times for these risks are 1 hour after administration and at 6-12 hours. Therefore there is a need for close monitoring at those times and throughout the first 24 hour period post administration.

Medications administered via epidural analgesia/anesthesia cross the placenta, therefore, the neonate/ fetus must be evaluated to ensure they have no adverse effects.

PREPARATION OF PATIENT FOR PLACEMENT

1. Assess the following:
   - Maternal baseline vital signs (VS)
   - Fetal heart rate (FHR) tracing
     - Continuous fetal monitoring throughout procedure
     - If Category II or III FHR pattern identified, initiate corrective action as needed and notify the anesthesiologist and obstetric care provider
2. Encourage patient to void prior to epidural placement.
3. Administer IV fluid bolus as ordered.
4. Note: Patient should have received a minimum of 500 mL bolus of lactated ringers or normal saline prior to epidural (per physician order).Assist with patient positioning for catheter insertion.
5. Ensure anesthesia consent for epidural placement is present.
6. Ensure Pre-Procedure Verification is done.

MATERNAL AND FETAL ASSESSMENT POST-CATHETER PLACEMENT

7. Assess the following
   - Maternal VS after initiation or re-bolus of medication
   - A minimum of every 5 minutes x3 or until stable, then every hour once stable
   - Continuous fetal monitoring
   - Nausea and vomiting
   - Urinary retention and bladder distension q4 hour
   - Presence and severity of pruritus
8. Facilitate uterine displacement by positioning laterally or upright with wedge.
9. Evaluate maternal pain level using appropriate pain scale.
10. Monitor for signs and symptoms of intravascular injection of local anesthetic.
    - Maternal tachycardia or bradycardia
    - Hypertension

- Dizziness
- Tinnitus
- Metallic taste
- Loss of consciousness

11. Monitor for signs/symptoms of subdural migration or intrathecal catheter placement:
    - Change in baseline LOC
    - Difficulty breathing or apnea
    - Numbness of upper extremities
    - Decreased ability to move limbs
    - Subdural migration: Abnormal motor block on one side and sensory block on the opposite side
    - Intrathecal: Patient having had contractions has rapid pain relief (within approximately 3-6 minutes)

POST DURAMORPH ASSESSMENT

12. Assess the following every hour for the first 12 hours, then every 2 hours for the next 12 hours post Duramorph (single dose) administration:
    - Respiratory rate including depth of respirations
    - Oxygen saturation
    - LOC

POSTDURAL HEADACHE:

13. Assess for the following symptoms if headache occurs post epidural/spinal catheter placement:
    - Headache that occurs when placed in upright position (frontal-occipital headache is most commonly associated with epidural/spinal catheter placement
    - Pain radiating to neck/stiff neck
    - Nausea/vomiting
    - Visual changes, e.g., photophobia, diplopia
    - Auditory symptoms such as hearing loss, hyperacusis, tinnitus

SAFETY:

14. Ensure the following:
    - Patent IV access
    - Catheter, dressing, antibacterial filter and tubing connection are secure
    - Catheter and pump tubing labeled "epidural"
    - Bag-valve-mask device and oxygen source immediately available
    - Naloxone immediately available
    - Infusion pump and infusion set without injection ports are used
15. All opioid medication orders must be approved by Anesthesia during 24 hour post Duramorph administration

PATIENT TRANSFER

16. Transfer the patient out of Labor and Delivery **ONLY** after the epidural catheter is discontinue/removed unless tubal ligation pending and with the approval of anesthesia.
17. Ensure report to the receiving unit includes that the patient received Duramorph (if applicable).

REPORTABLE CONDITIONS:

18. Notify anesthesiologist of the following:
    - Signs and symptoms of intravascular injection of local anesthetic (Stop
    - infusion first)
    - Signs and symptoms of subdural migration or intrathecal catheter placement (Stop infusion first)
    - Inability to move legs
    - Hypotension (SBP < 100 mmHg or 20% decrease from baseline)
    - Respiratory depression
    - Oxygen desaturation
    - Decreased LOC
    - Pruritus
    - Dislodgement of catheter, occlusive dressing, or antibacterial filter
    - Signs and symptoms of infection/abscess/hematoma at catheter site
    - Intractable nausea and vomiting
    - Unrelieved pain
    - Postural headache

PATIENT/FAMILY TEACHING:

19. Determine patient's/family's knowledge and concerns about epidural analgesia/anesthesia.
20. Instruct on the following:
    - Purpose of epidural infusion
    - How to use Patient Controlled Epidural Analgesia (PCEA) function
    - Inability to move
    - PCEA only to be administered by the patient
    - Need to report:
        - Signs/symptoms of adverse reactions
        - Disruption of catheter or dressing
        - Inadequate pain relief

ADDITIONAL PROTOCOLS

21. Implement the following as indicated:
    - Electronic Fetal Monitoring
    - Falls/ Injury Prevention
    - Immobility
    - Indwelling Bladder Catheter
    - Intravenous Therapy
    - Oxygen
    - Pain Management
    - Patient in Labor
    - Physiologic Monitoring/ Hygiene/ Comfort – Newborn/Pediatrics

DOCUMENTATION:

22. Document in accordance with "documentation standards".

Initial date approved: 08/05	Reviewed and approved by: Professional Practice Committee Pharmacy & Therapeutics Committee Nurse Executive Council Attending Staff Association Executive Committee	Revision Date: 09/11, 8/12, 4/14

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