TITLE: Care of the Postpartum Patient Receiving Regional Anesthesia

RELATED GUIDELINES:
Ambulatory Regional Anesthesia
Care of the Postpartum Patient
Post Anesthesia Care on Labor and Delivery
Epidural and Intrathecal Infusion Analgesia (UCH Policy and Procedures)

APPROVED BY:

DESCRIPTION (PURPOSE): This guideline describes the care of the postpartum patient receiving continuous or patient-controlled lumbar epidural pain control.

ACCOUNTABILITY (SCOPE/PERSONNEL): Registered Nurses, Anesthesiologists, CRNAs, and Obstetricians

DEFINITIONS:
- Regional Anesthesia: partial to complete loss of pain sensation below T8-T10 level with varying degree of motor blockade depending on anesthetic agent used.
- Neuraxial opioid analgesia: epidural or spinal administration of opioids.
- Combined Spinal Epidural: allows for rapid onset of a spinal dose with the ability for prolonged pain management duration from a continuous epidural.
- Respiratory Distress: reduced respiration rate (<10-12 breaths/min), reduced oxygen saturation (<90-92%), or hypercapnia/hypercarbia; clinical signs (drowsiness, sedation, periodic apnea, cyanosis) may also provide indications for respiratory distress.
- Side Effects:
  o Urinary retention – if not able to void in 6-8 hours after indwelling catheter is removed, assess bladder by palpation; notify anesthesia and prepare for possible straight catheterization.
  o Itching – notify anesthesia if uncontrolled with medication ordered by anesthesia (usually meprobam).
  o Nausea – notify anesthesia if uncontrolled with medication ordered by anesthesia
- Complications:
  o Respiratory depression – see below for procedure if < 8 breaths/minute
  o Abscess – back pain, flaccid paralysis followed by spastic paralysis, elevated WBC, sensory and motor changes and positive Brudinski sign usually 1-3 days after epidural placement. Notify anesthesia
  o Epidural hematoma – severe back pain, lower extremity paresthesia, change in sensory or motor function. Notify anesthesia.


Sympathetic blockade – decreased BP and HR at times. Lower head of bed and notify anesthesia.

Toxicity – lightheadedness, numbness of tongue and lips, visual and auditory disturbances, muscle twitches, unconsciousness, seizure, coma, respiratory arrest, prolonged PR and QRS intervals, Bradycardia, and sinus arrest. Notify anesthesia immediately and stop infusion.

Allergic reaction – hives, respiratory depression, and anaphylaxis. Notify anesthesia and stop infusion.

Dural puncture – verify with anesthesia prior to catheter removal and monitor for headache.

Breakthrough pain – notify anesthesia for orders.

Limited mobility – raise head of bed to 30-45 degrees and notify anesthesia. Continue Q 1 hour sensory and sedation assessments or more frequent if patient’s condition warrants.

GUIDELINES:

- Regional epidural anesthesia considered stable prior to transfer to post partum unit.
- Upon arrival to postpartum unit, patient will have an existing epidural catheter in place and a patient-controlled epidural anesthesia pump connected/infusing opioid medication.
- To ensure safe transfer from gurney to bed, a roller board should be used if patient is unable to lift buttocks off bed and assist in transfer.
- Date and time of epidural placement noted in EPIC or during nurse-to-nurse report.
- Initial assessment of patient should be composed of the follow:
  - Pain (VOLTA 1-10 scale)
  - Vital signs: blood pressure, heart rate, respiration rate, temperature, pulse oximetry.
  - Sedation Scale and Level of Consciousness
  - Dermatome level and motor abilities
  - Presence of side effects
  - Presence of complications
  - Epidural insertion site and surrounding tissues for redness, tenderness, or edema
  - Ensure that dressing is intact and without leaking
  - Ensure that tubing and PCEA are connected and operating.
  - See Care of the Postpartum Patient for remaining postpartum assessment needs.

- Continued assessment, based on time of epidural placement and stability.

Assessment of Patients with no Risk Factors for Respiratory Depression once Block is Stable

<table>
<thead>
<tr>
<th>Vital Signs</th>
<th>Sensory level, leg lift</th>
</tr>
</thead>
<tbody>
<tr>
<td>Assess all vital signs every 5 (five) minutes for the first 15 minutes or until block is stable</td>
<td>Assess after the first 15 minutes, repeating every 15 minutes until block is stable</td>
</tr>
<tr>
<td>Once stable – vital signs, including respiration rate and sedation scale every 30 minutes x 4 checks (2 hours)</td>
<td>Every hour x 2 hours</td>
</tr>
</tbody>
</table>
**Respiratory rate, sedation scale every hour x 12 hours, then every two hours as long as remaining stable with sensory level documentation**

**BP, P, T will be documented every 2 hours with sensory block. Vital signs may be assessed more frequently based on entire clinical picture**

**Every 2 hours as long as stable**

Assessment of patients with comorbidities or risk factors for Respiratory Depression (parenteral opioids, magnesium sulfate, obesity)

**Note:** It may be necessary to monitor the depth and respiration and oxygenation saturations at frequent intervals or continuously, per anesthesia orders.

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<td>Assess all vital signs every 5 minutes for the first 15 minutes or until block is stable. After stabilized, vital signs, respiration rate, sedation scale are monitored every 30 minutes x 4 exams (2 hours) after block is stabilized</td>
<td>Assess after the first 15 minutes repeating every 15 minutes until block is stabilized. Once stable, assess every 30 minutes x 4 (2 hours)</td>
</tr>
</tbody>
</table>

**Assess all vital signs, respiratory rate and sedation scale every hour for the remainder of time with epidural/PCEA. These assessments may need to occur more frequently if patient condition warrants.**

**Assess sensory and motor block every hour for remained of time with epidural/PCEA.**

Respiratory Depression Interventions

1. Notify anesthesia immediately if:
   a. The sedation scale is equal to or less than 2 (difficult to arouse) or the respiratory rate is less than 10 breaths per minute. Place pulse ox on finger, oxygen via mask at 10 L/minute, and turn off infusion pump.
   b. If sensory level (dermatome) rises above T-4 or if the patient complains of shortness of breath, chest heaviness, or upper extremity numbness. Place pulse ox on finger, administer O2 via mask at 10 L/minute, and turn off pump.
   c. If patient loses the ability to move legs independently.

Nursing Interventions

1. The registered nurse may remove the neuraxial catheter after infusion pump is discontinued as ordered by the anesthesiologist.
2. PO medications can be started as ordered by anesthesia

**DOCUMENTATION:**

1. RN to document above assessments in EMR with use of Epidural Group.
RELATED DOCUMENTS/REFERENCES:


TITLE: Care of the Postpartum Patient Receiving Single-dose or Intermittent Lumbar Epidural Pain Control

RELATED GUIDELINES:
Ambulatory Regional Anesthesia
Care of the Postpartum patient
Post Anesthesia Care on Labor and Delivery
Epidural and Intrathecal Infusion Analgesia (UCH Policy and Procedures)

APPROVED BY:

DESCRIPTION (PURPOSE): This guideline describes the care of the postpartum patient receiving single-dose or intermittent lumbar epidural pain control.

ACCOUNTABILITY (SCOPE/PERSONNEL): Registered Nurses, Anesthesiologists, CRNAs, Obstetricians

DEFINITIONS:
- Neuraxial opioid analgesia: epidural or spinal administration of opioids.
- Respiratory Distress: reduced respiration rate (<10-12 breaths/min), reduced oxygen saturation (<90-92%), or hypercapnia/hypercarbia; clinical signs (drowsiness, sedation, periodic apnea, cyanosis) may also provide indications for respiratory distress.
- Side Effects:
  - Urinary retention – if no able to void in 6-8 hours after indwelling catheter is removed, assess bladder by palpation; notify anesthesia and prepare for possible straight catheterization.
  - Itching – notify anesthesia if uncontrolled with medication ordered by anesthesia (usually nabaine).
  - Nausea – notify anesthesia if uncontrolled with medication ordered by anesthesia
- Complications:
  - Respiratory depression – see below for procedure if < 8 breaths/minute
  - Abscess – back pain, flaccid paralysis followed by spastic paralysis, elevated WBC, sensory and motor changes and positive Brudinski sign usually 1-3 days after epidural placement. Notify anesthesia
  - Epidural hematoma – severe back pain, lower extremity paresthesia, change in sensory or motor function. Notify anesthesia.
Once PCEA is discontinued, monitoring should be dictated by patient’s clinical condition and concurrent medications.

Increased Pain Assessment
1. Notify anesthesia for pain that is not well controlled with initial epidural dose and Q 6 hour ketorolac for possible bolus or other pain intervention options.

Respiratory Depression Interventions
1. Notify anesthesia immediately if:
   a. The sedation scale is equal to or less than 2 (difficult to arouse) or the respiratory rate is less than 10 breaths per minute. Place pulse ox on finger, oxygen via mask at 10 L/minute, and turn off infusion pump.
   b. If sensory level (dermatome) rises above T-4 or if the patient complains of shortness of breath, chest heaviness, or upper extremity numbness. Place pulse ox on finger, administer O2 via mask at 10 L/minute, and turn off pump.
   c. If patient loses the ability to move legs independently.

Nursing Interventions
1. The registered nurse may remove the neuraxial catheter after infusion pump is discontinued as ordered by the anesthesiologist.
2. Scheduled Ketorolac (Foralol) Q 6 hours x 24 hours for pain control
   a. Monitor urine output every hour; if less than 30 mL/hour x 2 hours, hold next Foralol dose and notify anesthesia.
3. PO medications can be started 12 hours postpartum as ordered by anesthesia.
   a. Do not administer oral ibuprofen and Foralol together. Wait 6 hours between last Foralol dose and first ibuprofen dose.

DOCUMENTATION:
1. RN to document above assessments in EMR with use of Epidural Group.

RELATED DOCUMENTS/REFERENCES:


