Purpose

Regional analgesia/anesthesia is made available for obstetrical patients for pain control during labour and to provide anaesthesia for vaginal operative deliveries. Epidurals provide consistent levels of pain control while minimizing sympathetic/motor block and allowing some pelvic floor tone. The epidural catheter may also be used to provide anesthetic/analgesia for patients who require cesarean section during the course of their labour.

*For discussion of advantages/disadvantages, contraindications, and side effects, please refer to the Grey Nuns and Misericordia Community Hospitals’ Certification Module for Epidural/Spinal Analgesia/Anesthesia (September, 2010).*

Procedure

1.0 MANAGEMENT AT INITIATION OF EPIDURAL

1.1 IV Access/Therapy
- Ensure an intravenous access is established prior to insertion of the epidural.
- Routine intravenous fluid bolus/pre-load is not required prior to initiation of a low dose epidural.
- If the patient is at risk for hypotension (i.e. low baseline blood pressure, dehydration, antepartum bleeding) or if a more concentrated medication is being utilized, review need for pre-load bolus with anaesthetist.
- A saline lock may be used.

1.2 Oxytocin Infusion
- It is recommended that if a patient is actively contracting, the oxytocin infusion should be temporarily discontinued. If the epidural insertion time takes longer than 30 minutes
the patient should be reassessed and the rate may need to be adjusted according to induction and augmentation guidelines.

2.0 ASSESSMENT AND MAINTENANCE GUIDELINES

2.1 Initial Assessments and Documentation

- Blood pressure, pulse, and respirations should be assessed and documented q 5 minutes x 15 minutes then q 15 minutes x 45 minutes.
- It is recommended that continuous External Fetal Monitoring (EFM) be implemented during the first hour following initiation of an epidural. Documentation of Fetal Heart Rate (FHR) should be q 15-30 minutes.
- Assess dermatome and motor block within 30 minutes of epidural initiation.
- Please note some Anaesthesiologists may request pulse oximetry at initiation.
- RN should remain in patient’s room for 30 minutes post epidural initiation.

2.2 Ongoing Assessments and Documentation

- Assess and document BP, pulse, and respirations q hourly unless maternal condition indicates more frequent assessment.
- Assess and document FHR q 15-30 minutes or more, as required.
- Intermittent Auscultation is an acceptable means of obtaining FHR in low risk patients with an epidural.
- If there are periods where maternal hypotension is a concern, the hypotension should be treated and EFM should be considered until the mother and fetus are stable.
- Assess BP, pulse, and respiration every 5 minutes for the first 15 minutes following re-bolus by Anaesthesia. Patient controlled bolus by PCEA pump does not require a change in frequency or vitals assessment.

2.3 Assessment and Management of Level of Sensory and Motor Block

- Assess sensory and motor block hourly. Ideally, block should be between T₆ – T₁₀ bilaterally.
- Change maternal position at least every hour.
- Modify rate of epidural infusion as indicated as per anaesthetist’s orders.
2.4 Management of the Bladder

- Prior to insertion of the epidural the patient should be encouraged to empty her bladder.
- Assess bladder hourly for distension by palpation or auscultation.
- Encourage patient to void hourly. Document urine output volume at least every 2 hours.
- Ambulation to the bathroom or use of a bed pan is an alternative to catheterization.
- An indwelling Foley or in & out catheter may not be necessary if the patient has bladder sensation and the ability to void adequately or if nearly fully when epidural is initiated and has emptied her bladder.
- If the patient is unable to adequately void, an indwelling Foley catheter should be inserted, the bulb inflated and the Foley secured with tape to the patient's leg. The catheter bag should be secured to the bed and not placed on the floor. **Vaginal examination for bulb placement is not indicated.**

3.0 GUIDELINES FOR AMBULATION

3.1 Ambulation Criteria

- Communication between doctors and nurses should occur to determine if ambulation is appropriate.
- A RN must remain in constant attendance.
- The following patient criteria must be met prior to ambulation:
  
  NOTE: No ambulation is allowed in the first 30 minutes after the initiation of the epidural or re-bolus, **including PCEA.**
  - Dermatome level T8 or less.
  - The patient can do a straight leg raise in the bed.
  - There is no evidence of hypotension when sitting/dangling.
  - The patient can perform a partial knee bend at the bedside.
- The syringe pump can be attached to the patient's intravenous pole during ambulation.
4.0 MANAGEMENT OF THE SECOND STAGE

4.1 Assessments
   Initial Assessments
   - At the time of full dilation, a thorough assessment of fetal station, position and presence of caput is necessary.
   - Determine if the patient has the urge or sensation to push.
   - Check the dermatome and motor block. Determine if there is adequate analgesia and assess the ability to bear down.

4.2 Documentation in the Second Stage
   - Dermatome and motor block continue to be assessed and documented every hour.
   - Document any changes in rate of epidural infusion or any bolus the patient may receive.
   - Document sensation/pushing efforts.

4.3 Operative Delivery
   - In the event that a forceps or vacuum delivery is required, consultation with the anaesthesiologist may be necessary.

5.0 AT DELIVERY AND IMMEDIATE RECOVERY PERIOD

5.1 Epidural infusion Rate/Discontinuing Epidural Catheter
   - The epidural infusion should be turned off at the time the placenta is delivered.
   - The epidural catheter should be removed prior to transfer to the postpartum ward. It is important to ensure that when the catheter is removed that the tip is intact. Documentation of removal is required.
   - The IV site must be maintained for at least 4 hours and a saline lock is acceptable.
   - Do not remove in those patients who are at risk for:
     - Actual or threatened postpartum hemorrhage.
     - Operative repair of perineal or cervical lacerations/extensions. In the event that the patient requires an extensive vaginal repair the anaesthetist may consider an injection of Epi-Morph for pain management.
     - Post-dural puncture headache.
5.2 Ambulation Postpartum

- An assessment of the dermatome level and motor block is done.
- Ambulation criteria must be met prior to ambulation.
- The nurse must be in constant attendance while ambulating if there is evidence that the epidural is still effective.

5.3 Management of the Bladder Postpartum

- Adequate assessment of bladder distention is required either by palpation or auscultation.
- A foley catheter does not need to be (re) inserted unless indicated.
- Communicate to the post partum staff assessments and interventions regarding bladder management.

5.4 Management of the Epidural Catheter Post Caesarean Section

- The epidural catheter is removed prior to discharge from the recovery room unless specifically ordered by the anaesthetist.

REFERENCES