1. PURPOSE

1.1 To provide effective safe pain management using an epidural catheter for medication administration.

2. POLICY

2.1 Patients having an epidural catheter inserted will be monitored and assessed as per protocol based upon the type of epidural medication being administered.

2.2 Oxygen and resuscitative equipment must be readily available.

2.3 Monitoring and resuscitative measures are not required in the Palliative Care Unit.

3. PROCEDURE

3.1 Insertion

3.1.1 Supplies
- Mask, hat and sterile surgical gloves for anesthesiologist
- Epidural insertion tray
- Opsite® 10 cm x 14 cm
- Hypafix® tape
- Chlorhexidine prep 2%
- Medication (local anesthetic and/or narcotic) as requested by anesthesiologist
- Resuscitation equipment on unit

3.1.2 Encourage the patient to void prior to the procedure.

3.1.3 Establish an IV and obtain baseline vital signs.

3.1.4 Preload the patient with an IV crystalloid solution as ordered by the anesthesiologist.
3.1.5 Position the patient as requested by the anesthesiologist in side lying position or sitting supported by a bedside table.

3.1.6 Assist the anesthesiologist as needed with epidural catheter insertion.

3.1.7 Support the patient during the procedure.

3.1.8 Assist the anesthesiologist in securing the epidural catheter over the insertion site and up the patient’s back to shoulder with Hypafix® tape, ensuring there are no kinks in the epidural catheter.

3.1.9 Ensure top of the catheter and connection adapter is visible and easily accessible.

3.1.10 Monitor vital signs and adverse effects of narcotic or anesthetic during injection and immediately following injection according to protocol for type of medication(s) being administered.

3.1.11 Following the procedure, position patient as ordered by anesthesiologist and continue monitoring as per protocol.

3.1.12 Initiate treatment for adverse effects as per anesthesiologist orders. See Appendix A or Appendix B.

3.1.13 Ensure use of an epidural infusion pump (yellow Gemstar) and epidural infusion tubing (yellow stripe) with no ports. Ensure tubing and bag are labeled “EPIDURAL”.

3.1.14 Document on appropriate record
   - epidural insertion time
   - anesthesiologist performing procedure
   - patient tolerance of procedure
   - medication administered
   - vital signs
   - complications
   - interventions

3.2 Care of Epidural Catheter

3.2.1 Check dressing over insertion site frequently.
   - Do not remove the primary dressing.
   - Observe for a wet dressing indicating leakage of blood or medication.
   - Reinforce tape around dressing if necessary.
   - If dressing saturated, notify anesthesiologist.

3.2.2 Observe the site for
   - Redness
   - Bruising
   - Discharge
   - Skin irritation or tape allergies

3.2.3 Check catheter
   - Ensure the catheter is always securely taped.
   - Be cautious when moving or turning the patient so the catheter is not dislodged.
   - Check catheter tubing and pump connections for disconnection or kinking.
3.2.4 If the catheter becomes disconnected from adapter call the anesthesiologist immediately. No need to clamp.

3.2.5 No bath or shower while catheter in situ.

3.3 **Report to Anesthesiologist**
- Signs and symptoms of intrathecal injection of narcotic or anesthetic
- Postdural puncture headache
- Signs and symptoms of epidural abscess/infection
- Any abnormal loss of movement or numbness in legs or bowel/bladder incontinence
- Disconnection of catheter from connection adapter

4. **REFERENCES**


Failure modes & effects analysis (FMEA): The administration of epidural medications using PCEA versus IV infusion pump. (October 2006). Risk Management, Saskatoon Health Region.


## Appendix A

### Continuous Epidural Infusion of Narcotic Analgesia With or Without Local Anesthetic

1. Ensure patient IV in situ while epidural is in place
2. **Epidural Infusion:**
   - [ ] lumbar
   - [ ] thoracic
   - Bupivacaine 0.1% with epidural morphine 40 mcg/ml
   - Bupivacaine 0.1% with fentanyl 2 mcg/ml
   - Epidural morphine 50 mcg/ml
   - [ ] Other

3. a. Continuous Rate __________________ ml/hr
   b. PCEA Dose __________________ ml
   c. Lockout Interval ____________ min
   d. Dose limit [ ] no [ ] yes (______ boluses/hr _______ ml/4hr)

4. Monitor as per policy on initiation of infusion or if rate is changed
5. Bedrest [ ] no [ ]
   - up with assistance only-assess motor function prior to ambulation
6. Perform Sensory Levels [ ] no [ ]
   - notify anesthesiologist if level
7. **NOTIFY ANESTHESIOLOGIST IF:**
   a. BP < __________ mmHg
      - Give IV bolus of 250 ml Normal Saline
      - or _______ ml (10 ml/kg) IV bolus of Normal Saline (Pediatrics)
   b. Patient somnolent, O₂ Sat. < 90%, RR < __________ /min
      - CALL STAT IF Patient UNAROUSABLE, give O₂ at 10 L/min,
      - Monitor O₂ Sat., and give Naloxone (Narcan) _______ mg IV push
      - (Pediatric dose: 0.01 mg/kg)
   c. Rescue analgesia required: Rescue analgesia: ________ mg
      - of ________ IV push q __________

### Treatment of Side Effects:

#### a. Pruritus:
- Diphenhydramine (Benadryl) ________ mg IV push
- May repeat q __________ (Pediatric dose: 0.5 mg/kg)
- OR Other:

#### b. Nausea/Vomiting:
- Dimenhydrinate (Gravol) ________ mg IV push
- May repeat q __________ (Pediatric dose: 0.5 mg/kg)
- OR Other:

### Urinary Retention:
- Insert Foley Catheter

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**Physician’s Signature**

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**Form #** 102166  09/01  **Category:** Orders  **EPIINF**
## PHYSICIAN’S ORDERS

**ROYAL UNIVERSITY HOSPITAL (02)  CITY HOSPITAL (03)  ST. PAUL’S HOSPITAL (04)**

<table>
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<tr>
<th>DATE</th>
<th>TIME</th>
<th>M A R</th>
<th>I C P</th>
<th>R E Q</th>
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### ALLERGIES:

#### PHYSICIAN’S ORDERS

**INTERMITTENT EPIDURAL AND INTRATHECAL NARCOTICS**

1. Patient received: epidural/intrathecal
   - __________ mg
   - __________ or __________ at __________ hour
   - (DRUG) __________ mcg

2. Monitor as per policy

3. NOTIFY ANESTHESIOLOGIST IF:
   - a) Patient somnolent, O₂ Sat. less than 90%, RR less than ____/min
      - CALL STAT IF Patient UNAROUSABLE, give O₂ at 10 L/min,
      - Monitor O₂ Sat., and give Naloxone (Narcan) __________ mg IV push
      - (Pediatric dose: 0.01 mg/kg)
   - b) Rescue analgesia required: Rescue analgesia __________ mg
      - of __________ IV push q __________

5. **TREATMENT OF SIDE EFFECTS:**
   - a) Pruritus: Diphenhydramine (Benadryl) __________ mg IV push
      - May repeat q ___________. (Pediatric dose: 0.5 mg/kg)
      - OR OTHER:
   - b) Nausea/Vomiting: Dimenhydrinate (Gravol) __________ mg IV push
      - May repeat q ___________. (Pediatric dose: 0.5 mg/kg)
      - OR OTHER:
   - c) Urinary Retention: Insert Foley Catheter

### PHYSICIAN’S SIGNATURE __________________________________________