



Title: **PATIENT CONTROLLED EPIDURAL ANALGESIA**

Responsibility: Registered Nurse (RN)

Purpose of Guidelines: The patient will have adequate pain relief while maintaining satisfactory respiratory status.

Procedure:

1. All Epidural PCA orders, including bolus doses, must be ordered electronically through the Electronic Medical Record (EMR). Renewal of epidural PCA will be completed every 48 hours thereafter.
2. All additional narcotic medications orders for patients receiving continuous epidural infusion must be approved by the Anesthesiology Service prior to administration.
 - a. No I.M., I.V., P.O. opioids, sedatives, or benzodiazepine drugs are to be given to the patient except when ordered or approved by Anesthesiology.
 - b. The patient will not receive anticoagulants unless pre-approved by Anesthesiology while the epidural catheter is in place. The pre-approval of anticoagulants must be clearly documented in the patient's chart.
3. An Epidural identification sticker must be placed on the I.V. tubing throughout the use of the continuous epidural infusion. A sign clearly stating, "Epidural Infusion," will be prominently placed on the wall above the head of the patient's bed.
4. Maintain IV access by drip or saline lock during epidural infusion and for 8 hours after discontinuation.
5. When a PCEA is initiated, a new syringe is added, setting changes are performed, or upon receiving a transfer patient, a second nurse must check the medication concentration and all pump settings and electronically co-sign along with first nurse in the EMR.
6. Time of initiation of each bag must be recorded, as well as completing all documentation related to administration or wastage as defined in the narcotic policy.
7. Documentation must include infusion rate or PCEA settings, respiratory rate, blood pressure, pulse, pain rating, neurochecks, and sedation rating:
 - a. upon initiating the infusion or an increase in the setting
 - b. every 1 hour for 12 hours, then
 - c. after the first 12 hours monitor the respiratory rate every 2 hours if > 12, until 8 hours after epidural discontinued
 - d. If respiratory rate \leq 10 per minute, remain at bedside, stimulate patient and prepare to administer naloxone 0.2 mg over 1 minutes or if patient becomes unarousable during epidural use. Naloxone 0.2 mg over 1 minute may be repeated for a total of 2 doses. Prepare naloxone by mixing 0.4 mg (1ml) with 9 ml of normal saline, each 5ml contains 0.2 mg
 - e. neuro checks every 2 hours until 12 hours after epidural is discontinued
 - f. other vitals as per primary service

6. 8. Notify Anesthesiologist on call for:
 - a. Reicher of 2 or less
 - b. respiratory rate < 10 per minute or less, or with pulse ox reading of 92% or below the patients base line
 - c. systolic blood pressure of <100 mmHg or when less than 20% of baseline
 - d. inadequate level of analgesia
 - e. temperature of 101.5 (38 C) or greater
 - f. nausea or pruritis not controlled by therapy
7. 9. Document the running total.
8. 10. The pharmacy syringe is good for 24 hours. Date and time the medication syringe, and all Epidural pump tubing is to be changed by the nurse every 72 hours.
9. 11. After a loading dose is given the patient's blood pressure and respiratory rate should be checked at 10, 20, and 30 minutes after the loading dose or until stable.
12. Instruct patient to call for assistance when getting out of bed.
13. Instruct patient to report:
 - a. nausea and vomiting
 - b. itching
 - c. numbness or weakness in legs
 - d. difficulty or inability to void.
 - e. numbness or tingling in lips.
 - f. any changes in analgesia pattern
14. Examine the dressing over epidural site every shift for intactness or dampness. Notify Anesthesia service to change the dressing – nurses are not to change or remove the dressing over the Epidural catheter.
15. Instruct patient on PCEA or continuous epidural infusion.
16. Upon discontinuation of epidural infusion, if respiratory rate >12 continue respiratory assessment every 2 hours for an additional 8 hours. If respiratory rate is 10 or less, call Anesthesiology Service immediately.

Reference: Pandazi, A., Kanellopoulos, I., Kalimeris, K., Batistaki, C., Nikolakopoulos, N., Matsota, P., Babis, G. C., & Kostopanagiotou, G. (2013). Periatricular infiltration for pain relief after total hip arthroplasty: a comparison with epidural and PCA analgesia. *Journal of Orthopedic & Trauma Surgery, 133*(11), 1607-12.

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