



NURSING POLICY, PROCEDURE, PROTOCOL MANUAL

Pain (Acute): Single Dose Epidural or Intrathecal - Long Acting Opioid

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APPROVED BY:	(Chief of Nursing)		

POLICY STATEMENT:

The Registered Nurse (RN) must demonstrate competency in knowledge and skills required for care of a patient on the Acute Pain Service. The RN must complete the initial education program.

The APS Intravenous Patient Controlled Analgesia order form will be used to prescribe the route, medication, dose and time of the neuraxial administration and the supplemental opioid analgesia for the first 24-hour period.

Patients receiving single dose epidural or intrathecal opioid will not be discharged from the post anesthetic care unit (PACU) by the RN, until 4 hours have elapsed from the time of administration of neuraxial medication, unless otherwise ordered by the anesthetist.

The patient will be under the responsibility of the Acute Pain Service (APS) for assessments and analgesia for 24 hours from the time of the neuraxial administration (epidural or intrathecal single dose injection). The exception would be if the patient is discharged within the 24 hours by the attending service.

The patient is not to receive additional opioids, sedatives, antiemetics, non-steroid anti-inflammatory (NSAID) or central nervous system depressants (CNS) ordered by the attending service, until discharged from the APS, unless discussed and approved by APS. The exception to this is the Intensive Care Unit (ICU), Post Anesthetic Care Unit (PACU).

Patients receiving single dose epidural or intrathecal opioid will be assessed for a period of 24 hours, as outlined in the APS Assessment Guideline.

If level of sedation (LOS) > 2 and respiratory rate (RR) < 8, call APS stat. Implement the APS guideline for Naloxone Administration. Ensure APS is notified of Naloxone administration.

DEFINITIONS:

APS

The acute pain service (APS) consists of Anesthesiologists, an Advanced Practice Nurse (APN) and Nurse Specialist (s) to support quality, safe and ethical patient care for perioperative analgesia in the obstetrical, surgical and trauma population.

Single dose Epidural/Intrathecal

Single dose epidural/intrathecal long acting hydrophilic e.g. morphine or hydromorphone (dilaudid™), followed by adjunctives is an effective combination used for acute pain management. A single

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bolus dose of epidural/intrathecal administration of morphine or hydromorphone produces prolonged analgesia for up to 24 hours with minimal sedation.

Intrathecal Opioids injected directly into the subarachnoid space mixes with the cerebrospinal fluid (CSF) and diffuses into the spinal cord to reach opioid receptors in the dorsal horn.

Epidural opioids injected into the epidural space diffuse across the dura and the arachnoid membranes into the subarachnoid space. When the opioid reaches the subarachnoid space, it freely mixes with the CSF and diffuses into the spinal cord.

Respiratory Depression

Respiratory depression is defined as reduced respiratory rate and/or a decrease in depth of inspiration, from baseline accompanied by mental clouding and somnolence.

Respiratory depression may occur as early or delayed onset. Early onset is related to systemic uptake of the opioid in plasma due to diffusion into the epidural bloodstream. This may occur up to 1 hour after epidural opioid administration when blood levels are highest. Delayed onset is related to water solubility of the drug. Water-soluble drugs like morphine and dilaudid remain suspended in the CSF for prolonged periods (up to 24 hrs after bolus). The drug may be carried via CSF flow (rostral spread) to the brain stem respiratory control center. Peak occurrence of delayed respiratory depression is 6-8 hrs after epidural morphine bolus.

The Naloxone Administration guideline is a clinical guideline for the initial management of opioid induced respiratory depression in the postoperative setting. It also serves to emphasize the need to consider differential diagnosis of decreased SpO₂ and increased sedation in patients receiving acute pain management. It provides clear indications for naloxone and guidelines for nurses to administer naloxone in the event a physician is not available.

Adequate Analgesia

Pain score of $\leq 3/10$ rest; $\leq 5/10$ activity. The patient is able to rest comfortably, progress with their activity and achieve their pain management goal.

NURSING ALERTS:

1. Ensure the availability of Naloxone (Narcan) 0.4 mg/ml ampoules on all clinical units.
2. Ensure the availability of resuscitation equipment in the clinical area.
3. Ensure IV access for 24 hours from the time of the neuraxial administration of the epidural or intrathecal single dose injection. Exception: post caesarean section – 12 hours.
4. Pain management following single dose epidural/intrathecal varies depending upon the surgical procedure. Some patients may be maintained on an IV PCA pump in the immediate post op period for optimal pain management. Refer to policy for IV PCA if applicable.
5. Assess pain intensity; using 0 to 10 verbal analogue scale (VAS), in the patients preferred language. Refer to the Pain Resource manual located on each clinical unit.
6. Consider using the patient self - assessment Brief Pain Inventory (BPI) with patients screened for pre-existing pain and/or when more information is required. Refer to the Pain Resource manual.

PROCEDURE:



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1. Follow the APS assessment guideline.
2. Resume orders written by attending service for opioids, sedatives, antiemetics, NSAID's and/or CNS depressants after 24 hours, from the time of neuraxial administration of medication.

PROTOCOL:

Clinical Guidelines:

Naloxone Administration - Appendix 1

APS Assessment Guideline - Epidural / Intrathecal single dose

PAIN	Verbal Analogue Scale (VAS) 0 – No Pain 10 – Worst pain Assess Rest and Activity Is pain preventing movement? Yes No Are you satisfied with pain control? Yes No	Frequency VAS q1h x 4hours; then q4h while awake q4h while awake
LOS & RR	Level of Sedation 0 None: Fully awake, alert 1 Mild: occasionally drowsy, easily aroused 2 Moderate: frequently drowsy; easily aroused, drifts off to sleep during conversation 3 Severe: Somnolent; difficult to arouse, minimal or no response to stimuli S Sleep: Normal sleep; easily aroused, RR> 10 and even, not shallow Respiratory rate, rhythm, depth	Frequency Q1h x 4 hours; q2h x 20 hours <u>Exceptions:</u> For OBS (c-births) following <u>Epi/IT bolus</u> , asses q1h x 4 hours;q2h x 4 hours; then q4h If LOS ≥2, assess LOS & RR q1h

DOCUMENTATION:

Document on the Pain Assessment and Medication Administration Record (MAR).

- assessments relative to the modality, interventions and side effects

PATIENT TEACHING:

1. Ensure patient has written patient information
2. Advise the patient of the frequency of assessments including the pain intensity scale of 0 (no pain) to 10 (worst possible pain).
3. Review with the patient the goal of the pain management therapy relative to their progressive recovery.
4. Instruct patient to notify nurse if experiencing side effects including, increased difficulty with breathing or increased sedation, itching, rash, nausea, and/or increased pain.

REFERENCES:

Hagle M.E., Lehr, V., et al, Respiratory Depression in Adult Patients With Intravenous Patient – Controlled Analgesia, Orthopedic Nursing, January/February, 2004 (23) 1

Registered Nurses Association Ontario Best Practice Guidelines - Pain Management 2002