

PERIPHERAL NERVE BLOCK – ACUTE CARE UNITS

PURPOSE: To outline the management of the patient who has received a peripheral nerve block on the medical/surgical unit.

SUPPORTIVE DATA: A peripheral nerve block (PNB) is a method of regional anesthesia. The PNB may be administered as one or more injections or as continuous infusion (i.e., Ropivacaine or Bupivacaine). A catheter is inserted percutaneously by anesthesia provider for delivery of local anesthetic to a specific region to block target nerve(s) in that region.

The goals of caring for a patient with PNB are to manage pain, while monitoring for and preventing complications.

The following are relative contraindications for PNB:

- Coagulopathy
- Preexisting neuropathies
- Anatomical deviations at the PNB site
- Systemic Infection
- Liver Disease that may interfere with medication clearance
- Allergy to medications used in procedures

Local anesthetic systemic toxicity (LAST) is a complication of PNB. Complications can range from mild (auditory changes, metallic taste, circumoral numbness, agitation to Central Nervous System (CNS) findings (seizure, coma, respiratory arrest) Cardiovascular events (hypertension, hypotension, tachycardia, bradycardia, ventricular arrhythmias, cardiac arrest). Respiratory and central nervous system depression can result from untreated local anesthetic toxicity.

Other complications include bleeding/hematoma, infection, and nerve damage

ASSESSMENT:

1. Assess for the following upon return to unit then Q4h until sensation has returned:
 - Level of Consciousness
 - Motor and sensory function
 - Vital Signs
 - Pain
 - Oxygen Saturation
 - Appearance of catheter insertion site
2. Monitor for signs and symptoms of local Anesthetic toxicity:
 - Tachycardia
 - Hypertension
 - Tinnitus
 - Metallic taste
 - Numbness in the lips
 - Twitching of the eyes and lips
 - Seizures
3. Monitor for the following complications (interscalene, infraclavicular and Supraclavicular PNB only):
 - Unilateral diaphragmatic paralysis or pneumothorax, difficulty breathing, tachypnea, decreased oxygen saturation, unequal chest expansion
 - Horner Syndrome: Unilateral pupil constriction, red eye, ptosis, nasal congestion, and hoarseness

MANAGEMENT:

- 4. Maintain affected limb in neutral position
 - For upper extremity, place pillow under the elbow
 - For lower extremity, support the entire leg with pillows

SAFETY:

- 5. Do not allow patient to ambulate until full mobility and sensation has returned (lower extremity blocks only).

REPORTABLE CONDITIONS:

- 6. Notify Anesthesia provider of the following:
 - Swelling, bleeding, hematoma at catheter site
 - Change in level of consciousness
 - Hypotension, Hypertension
 - Bradycardia, Tachycardia
 - Palpitations
 - Restlessness
 - Seizure activity
 - Itching
 - Anxiety
 - Nausea and vomiting
 - Tinnitus
 - Numbness of the lips
 - Metallic taste
 - Unrelieved pain
 - Dislodgement

PATIENT/ CAREGIVER:

- 7. Instruct on the following:
 - Purpose of PNB
 - The need for assistance with ADLs until block wears off
 - To not bear weight on the affected extremity or place anything hot or cold near the extremity until motor and sensation has returned
 - To keep the affected limb immobilized until motor and sensation has returned
 - To inform RN of the following:
 - Inadequate pain relief
 - Signs or symptoms of adverse effects

ADDITIONAL STANDARDS:

- 8. Refer to the following as indicated
 - Pain Management
 - Fall/Injury Prevention
 - Non-opioid Management System

DOCUMENTATION: 13. Document in accordance with documentation standards

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