

PERIPHERAL NERVE BLOCK- PACU

PURPOSE: To outline the management of the patient receiving peripheral nerve block in Post Anesthesia Care Unit (PACU) or Same Day Surgery.

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 a continuous infusion. A catheter is inserted percutaneously by an 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

Local anesthetic toxicity is a complication of PNB. Cardiovascular, respiratory and central nervous system depression can result from untreated local anesthetic toxicity.

Other complications include bleeding/hematoma, infection, and nerve damage. Interscalene, infraclavicular and supraclavicular PNBs (inserted into the neck between the anterior and middle scalene muscles) also carry the risk unilateral diaphragmatic paralysis, Horner syndrome, and pneumothorax.

PREPARATION FOR PNB:

1. Ensure the following are completed prior to PNB initiation:
 - Anesthesia and surgical consents have been obtained
 - Surgical site has been marked by the surgeon
 - Preoperative checklist has been completed
 - Anesthesia timeout has been completed and is documented

ASSESSMENT:

2. Assess the following **every 5 minutes during** placement of PNB:
 - Vital Signs
 - Oxygen saturation
 - Cardiac rhythm
3. Assess the following **every 15 minutes after** the PNB is placed and immediately before patient is transferred to the Operating Room:
 - Level of consciousness
 - Motor and sensory function
 - Vital signs
 - Oxygen saturation
 - Cardiac rhythm
 - Appearance of catheter insertion site
4. 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

5. 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:

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

SAFETY:

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

REPORTABLE
CONDITIONS:

8. 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 in the lips
 - Metallic taste
 - Unrelieved pain
 - Dislodgement

PATIENT/CAREGIVER
EDUCATION:

9. 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 the RN of the following:
 - Inadequate pain relief
 - Signs and symptoms of adverse effects

ADDITIONAL
STANDARDS:

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

- DOCUMENTATION:
11. Document in accordance with documentation standards.
 12. Document on “Pre-procedure Assessment/ Time out” and on “Perioperative Doc” sections.

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References:

Consult: LAC+ USC Department of Anesthesiology
Consult: PACU Nursing
LAC+USC Resources:
Adler, A., & Schub, T., Pravikoff, D. (2017): Nursing practice and skill, Peripheral nerve block, caring for the patient with. Retrieved from Nursing Resource Center CINAHL