Use Precautions to Prevent Injury and/or Complications Associated with a Procedure or Diagnosis

Preventing injuries and complications is a key nursing responsibility. The NCLEX often tests how to anticipate risks, use safety measures, and intervene early to prevent adverse outcomes.

1 General Precautions for Procedures & Diagnoses

- ✓ Identify High-Risk Patients Before Any Procedure:
 - Elderly, immunocompromised, bleeding disorders, chronic diseases (diabetes, heart failure).
 - Patients on anticoagulants (warfarin, heparin) or chemotherapy (low platelets = bleeding risk).
 - Patients with allergies to latex, iodine, or contrast dye (must use alternatives).
- ✓ Use Time-Out Procedures (Patient Safety Checks):
 - Verify **right patient**, **procedure**, **site**, **and side** before surgery.
 - Ensure **informed consent is signed** before any invasive procedure.
 - Confirm allergies & medication history before giving contrast dyes or anesthesia.
- ✓ Standard Post-Procedure Monitoring:
 - Monitor vital signs closely (BP, HR, SpO₂) for early signs of complications.
 - Assess for pain, bleeding, infection, and respiratory distress.
 - Reposition & encourage early ambulation to prevent complications.

⚠ NCLEX KEY POINT: If a patient reports severe pain, bleeding, or sudden difficulty breathing after a procedure, assess immediately and notify the provider!

2 Procedure-Specific Precautions

Lumbar Puncture (Spinal Tap) 💉

- Position the patient in a fetal side-lying or sitting position for insertion.
- Monitor for post-procedure headache (caused by CSF leak).
- Lie flat for 4-6 hours after to prevent spinal headache.
- Assess for signs of increased ICP (severe headache, vomiting, vision changes).

NCLEX KEY POINT: If a patient develops a severe headache after a lumbar puncture, encourage fluids & caffeine, and notify the provider for a possible blood patch! 🚨

Paracentesis (Fluid Removal from the Abdomen)



- \bigvee Have the patient empty their bladder before the procedure (prevents puncturing the bladder).
- Position patient in a High Fowler's (sitting upright) during the procedure.
- Monitor BP after (hypotension risk due to fluid shift).

NCLEX KEY POINT: If the patient becomes dizzy or lightheaded post-paracentesis, assess BP immediately (risk of hypovolemic shock). 🚨

Thoracentesis (Fluid Removal from the Pleural Space) 69

- Position patient sitting upright, leaning forward over a bedside table.
- Monitor for pneumothorax post-procedure (dyspnea, absent breath sounds, tracheal deviation).
- Assess for shock (low BP, high HR) due to rapid fluid loss.

A NCLEX KEY POINT: If a patient suddenly develops chest pain or absent breath sounds after a thoracentesis, suspect a pneumothorax—notify the provider immediately!

Central Line Insertion (Subclavian, Internal Jugular, PICC Line) 💉

- Place patient in Trendelenburg position to prevent air embolism (except for femoral lines).
- Confirm placement with a chest X-ray before using.
- Monitor for pneumothorax (sudden dyspnea, absent breath sounds).

A NCLEX KEY POINT: If a central line is accidentally removed, immediately apply direct pressure and place the patient in the left-side Trendelenburg position to prevent an air embolism! 🚨

Liver Biopsy (Assessing Liver Disease or Tumors)

- Assess coagulation status (PT, INR, platelets) before the procedure (risk of bleeding).
- Position patient on the RIGHT SIDE after the procedure (applies pressure to stop bleeding).
- Monitor for signs of internal bleeding (tachycardia, hypotension, abdominal pain).

NCLEX KEY POINT: Severe shoulder pain after a liver biopsy may indicate internal bleeding—assess immediately!

Cardiac Catheterization (Heart Vessel Assessment) 💚

- Assess for shellfish/iodine allergy (contrast dye risk).
- \overline{V} Post-procedure, keep the affected leg straight for 4-6 hours to prevent bleeding.
- Monitor for retroperitoneal bleeding (severe back pain, hypotension, tachycardia).

NCLEX KEY POINT: If a patient develops severe back pain after a cardiac cath, suspect retroperitoneal bleeding and notify the provider immediately!

3 Preventing Post-Procedure Complications

Prevent Bleeding:

- Apply direct pressure after catheter removals.
- Monitor hemoglobin & hematocrit if bleeding is suspected.
- Teach patients to avoid heavy lifting after invasive procedures.

Prevent Infection:

- Use **sterile technique** for dressing changes & IV access.
- Monitor for fever, redness, swelling, purulent drainage.

Prevent Blood Clots (DVT, Pulmonary Embolism):

- Encourage early ambulation & leg exercises.
- Use compression devices (SCDs) unless contraindicated.

Prevent Air Embolism:

- Place patient in Trendelenburg or left-side lying position if suspected.
- Always prime IV lines properly to remove air bubbles.

Prevent Aspiration:

- Keep head of bed elevated ≥30° post-procedure unless contraindicated.
- Encourage coughing & deep breathing exercises.

⚠ NCLEX KEY POINT: Always assess for early signs of complications (bleeding, infection, airway obstruction, or shock) and intervene immediately!

NCLEX Quick Review:

- Position patient on the right side after a liver biopsy to prevent bleeding.
- Trendelenburg position prevents air embolism during central line insertion.
- Monitor for pneumothorax after a thoracentesis or central line insertion.
- Severe headache after a lumbar puncture = CSF leak (increase fluids, notify provider).
- Back pain post-cardiac cath = Retroperitoneal bleeding (emergency!).
- If an air embolism occurs, place the patient in left-side Trendelenburg and call for help!