THE STUDY VAULT

Clinical Chaos

Chest Tube Care

SKILL SNAPSHOT

Purpose
- Maintains pleural drainage and negative pressure so the lung can re-expand.

When to use
- Pneumothorax, hemothorax, pleural effusion, empyema, or after thoracic/cardiac surgery.

Supplies needed
- Ordered drainage unit/suction; PPE; assessment tools; sterile dressing supplies; tape; emergency occlusive dressing.

PREP + PATIENT SETUP

- Verify order, indication, suction setting, and unit policy.
- Explain care; position semi-Fowler if tolerated.
- Assess pain, lungs, SpO2, work of breathing, site, tubing, and drainage baseline.

VAULT TIP

- Assess the patient before troubleshooting the equipment. Keep sterile water and an occlusive dressing immediately available per policy.

STEP-BY-STEP

1. Hand hygiene; identify patient; apply PPE.
2. Keep drainage unit upright and below chest; secure it to the bed frame.
3. Trace tubing from patient to unit. Correct kinks or dependent loops; keep connections visible and secure.
4. Confirm water-seal level per device. Observe tidaling; absence may mean re-expansion or obstruction.
5. If suction is ordered, set the device exactly as prescribed. For wet suction, gentle bubbling belongs in the suction-control chamber.
6. Assess respiratory status, bilateral breath sounds, SpO2, pain, insertion site, dressing, and subcutaneous emphysema.
7. Mark drainage level, date, and time. Note color and character. Report sudden increase, bright-red drainage, abrupt cessation with symptoms, or output above policy limits.
8. Check the water seal for bubbling. Intermittent bubbling with cough may occur; continuous bubbling suggests an air leak.
9. If an air leak is suspected, assess patient and system first; follow policy to locate it. Do not routinely clamp.
10. Change dressing using sterile technique and ordered antiseptic; keep insertion site sealed and tubing anchored without tension.
11. Encourage cough, deep breathing, incentive spirometry, repositioning, ambulation, and splinting as allowed.
12. Reassess breathing, pain, site, system function, and drainage after care.

SAFETY REMINDERS

- Do not strip or milk tubing unless specifically ordered/policy permits.
- Never lift the unit above chest level.
- Do not clamp for transport or routinely; clamping can cause tension pneumothorax.
- New severe dyspnea, tracheal deviation, falling SpO2, or absent sounds = emergency.

COMMON MISTAKES

- Setting wall suction higher instead of adjusting the drainage device.
- Ignoring continuous water-seal bubbling.
- Emptying the collection chamber or breaking the closed system.
- Securing tubing to movable bed rails.

DOCUMENTATION

- Respiratory assessment, SpO2, pain.
- Site/dressing and subcutaneous emphysema.
- Suction setting, water-seal/tidaling/air leak.
- Drainage amount, color, character, cumulative total.
- Interventions, tolerance, teaching, notifications.