HERZING UNIVERSITY | SCHOOL of NURSING

CHEST TUBE
INSTRUCTOR LED SKILLS PRACTICE

Name: _____ Date: _____

Supplies Needed	Split gauze, paper tape or large tegaderm, 2 clamps, Sterile gloves, mask, gown, suture removal kit, Sterile gauze and occlusive dressing (petroleum gauze or hydrocolloid dressing)
Equipment Needed	Wet or Dry chest tube drain system

	✓
Preparation	
Perform I-CHECK: introduce yourself, check armband (two patient identifiers), hand hygiene, explain procedure, check order, and keep privacy	
Patient Baseline Assessment	
Assess vital signs (BP, HR, Temp, O2 sat, RR)	
Conduct a full respiratory assessment	
Complete a pain assessment	
Assisting with Insertion	
Provide patient education as needed (ex: reinforce provider info, positioning, medication, procedural)	
Obtain consent (if patient condition allows)	
Gather equipment needed for insertion (chest drainage unit, chest tube, insertion kit, sterile gloves)	
Set up the chest drainage unit (wet vs. dry)	
If suction is being used, do not turn suction on until chest tube is connected	
If premedication is ordered, give medication	
Position the patient for the procedure	
Describes a “time out” procedure to be completed with provider	
Monitors patient during procedure	
After chest tube is inserted and connected to chest drainage unit, ensure connections are taped	
Turn on suction per orders of provider	
Verbalizes complications to monitor for during the insertion of a chest tube.	
Ensure two rubber tipped clamps, dressings, and a bottle of sterile water are available at bedside	
Assessing the Patient and Maintaining the Chest Tube after Insertion	
Assess patient’s vitals, respiratory status, pain level and chest drainage unit.	
Verify suction control settings (wet or dry) per providers orders	
Inspect tubing for kinks, loops, or clots that may impede drainage	
Ensure drainage system is below the level of the chest and is not knocked over	
Assess the chest tube dressing for drainage or clean dry and intact	
Inspect the insertion site for redness and drainage if dressing change is needed	
Assess the insertion site for subcutaneous emphysema	
Ensure water level is at the appropriate level in the air leak compartment and if using wet seal in the water seal column.	

Observe the water seal chamber for proper tidaling or bubbling • Intermittent bubbling in the air leak monitor will resolve as lung re-expands, constant bubbling in the air lead monitor may indicate a leak • Wet seal will have gentle bubbling in the suction control column if suction is used and is louder in operation than dry seal.	
Measure and document color and amount of drainage	
Mark the drainage level on the collection chamber with the date and time	
Perform coughing and deep breathing exercises with the patient to promote lung expansion	
Change out the drainage system if knocked over or full • Remove system from packaging and set up according to manufactures instructions • Ensure suction control chamber is set appropriately to providers orders • Use a chest tube clamp (rubber tipped) to occlude the tubing to prevent air entry during the switch (use two clamps in opposite directions) • Carefully disconnect the tubing from the old system • Immediately reconnect to new system • Check for bubbling with inspiration to ensure new system is working properly	
Chest Tube Removal	
Verbalize indications for removal (decreased drainage, resolved problem based on chest xray)	
Verify order for removal (check policy if RN can remove, may need 2nd staff member, or prepare for provider removal)	
Gather supplies for removal (ex: suture removal kit, dressings, sutures, local anesthetic if suturing)	
Position patient in semi-fowlers or high fowlers to facilitate lung expansion	
Cleanse around the site with antiseptic solution	
Prepare the occlusive dressing for immediate application	
Instruct patient to perform the Valsalva maneuver • Take a deep breath and hold breath (bear down) • Patient may also exhale forcefully at the time of removal • This prevents air from entering the pleural space	
Provider or trained nurse will use aseptic technique carefully remove any sutures securing the chest tube in place unless purse string sutures used to close. Purse strings are used to close the opening. Alternatively, sutures can be placed, or no sutures may be used.	
Provider or Trained RN: Using sterile technique gently but firmly pull the chest tube out in one smooth motion during exhalation or the Valsalva maneuver	
Immediately apply the occlusive dressing over the insertion site to prevent air entry • Note some providers use purse string sutures that you will pull to close the site	
Tape dressing down to ensure an airtight seal (3 sided taping vs 4 sided taping per policy)	
Reassess patient vitals, respiratory system and pain level	
Obtain a follow up chest x-ray	
Document dressing change, chest drainage system change, drainage color and amount, and removal	

The student demonstrated active participation throughout the lab session, fully engaging in practice activities and discussions while making a focused effort to develop a strong understanding of the skill.

Evaluator Initials or Signature: _____ Date: _____