

Removal of Pleural Chest Tube

Criteria to be met:

- C.T. drainage < 10 cc/hr x 6 hr pre-removal
- No air leak present
- CCTC physician order/co-signed order to d/c chest tube
- If more than one chest tube in place, double check to confirm the chest tube designated for removal
- Stable respiratory status: RR<24/min; NARD; bilateral A/E
- Coagulation WNL

Supplies:

- Dressing tray
- Jelonet
- Chlorhexidine antiseptic solution
- Suture cutter/scissors
- 4x4 gauze(at least 2)
- Non-sterile gloves, face shield (option if risk anticipated))
- Hypafix
- Blue pad
- Kelly clamp(s)
- PPE- non-sterile gloves, facemask with shield

Procedure:

- Have someone available to assist. A second pair of hands is needed to apply the dressing and maintain an occlusive seal at the time of chest tube removal.
 - Semi-fowler's position is recommended (if patient is able to tolerate).
 - Premedicate with analgesic if necessary
 - Discontinue suction
 - Clamp chest tube (the one being removed and any other tubes that share the same chest drainage unit).
- NB: If only one chest tube is being removed with a double chamber collection chamber, the drainage tubing to the removed tube must remain clamped following chest tube removal.**
- Perform hand hygiene and don non-sterile gloves, put on face shield.
 - Remove dressing and cleanse site with chlorhexidine alcohol solution.
 - Remove suture(s) holding chest tube in place. **NB: Purse string sutures are not to be removed, they are meant to assist in stab wound closure and will be ordered to be removed at a later date.**
 - Place 4X4's with Jelonet over chest tube removal site, hold dressing firmly in place.
 - Instruct patient to take a deep breath & hold it (always practice first with patient when possible) if patient is ventilated cycle with ventilator.
 - Retract chest tube ½ inch to test for resistance. If resistance is met, stop procedure and contact physician.

- In one smooth and rapid manner, remove chest tube, applying direct and immediate pressure.
- Have a second person apply Hypafix tape while maintaining occlusive pressure.
- Instruct patient to breathe normally.
- Unclamp remaining chest tubes and resume previous suction. Keep tubing of removed chest tube clamped if a double chamber drainage collection system is in use. If a chest tube is remaining on a double chamber drainage collection system, tie tubing in a knot and keep discontinued tubing clamped until remaining chest tube is removed.
- Remove non-sterile gloves and perform hand hygiene, then removal facemask with shield and perform hand hygiene.
- Dispose of drainage collection system in biohazard bin in dirty utility room.
- Obtain CXR within 4 hours of removal, or STAT, if you observe signs of respiratory distress, subcutaneous emphysema or bleeding from site.
- **Ensure physician reviews CXR**
- Document in patient chart, note final amount of chest drainage to calculate total drainage.

Developed by:

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