APPENDIX 33

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TITLE: Monitoring of Thoracostomy Tubes

REVISED: November 1, 2018

Monitoring of thoracostomy tubes

I. INDICATIONS:

- Intra-facility Transfer of a patient with a thoracostomy tube (AKA Chest tube) in place

II. CONTRAINDICATIONS/CONSIDERATION: *medical problems complicating the situation*

III. MEDICATIONS:

- Thoracostomy tubes may be painful. Consider analgesia by protocol or physicians orders, as stability allows.

IV. PROCEDURES:

- Patient shall be placed and maintained on cardiac and pulse oximetry monitors during transport.
- Signed transfer order from the transferring physician must be obtained prior to transport.
- Maintenance of chest tube either to occlusion, gravity or mechanical suction drainage is permitted.
- Occlusion
    - Chest tubes may be clamped and occluded for very short, emergent transports.
- Gravity Drainage (i.e. Pleurovac):
    - Collection receptacle must be kept below level of the chest to prevent drained fluid from re-entering the pleural space.
    - Do not allow the collection receptacle to tip over.
- Mechanical Suction Drainage:
    - By Idaho Emergency Medical Services Physician Commission (EMSPC) standards, transport of a patient with a chest tube connected to powered suction is a critical care skill, unless being transferred under the *Time Sensitive Emergency* (TSE) clause.
        - Otherwise, without specialty personnel present and assisting the EMS crew, the patient should be transitioned to gravity drainage prior to transport or occluded.
    - If mechanical suction drainage, the amount of mechanical suction must be specified.
    - Mechanical suction rate should remain constant during the transport.

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- Avoid/Do Not:
  - Allow pulling/tension on thoracostomy tube as this can cause accidental dislodgement of the tube.
  - Restrict gravity or suction drainage from the chest by the use of clamps, dependent loops or kinks in tubing as this will interfere with flow of drainage and may lead to increased pleural pressure, tension pneumothorax, or formation of clots.
  - Disconnect the drainage system or puncture tubing. Tape all connections securely to prevent violation of sterility and loss of negative pressure
- If the patient becomes dyspneic,
  - Assess for tube dislodgement
  - Assess for tension pneumothorax and treat accordingly.
- If hemorrhage occurs through the chest tube:
  - Observe for signs and symptoms of shock and treat according to protocol
- If the thoracostomy tube is partially dislodged:
  - Do not push the tube back into the chest.
  - - Secure the site
- If the thoracostomy tube is completely pulled out, place an occlusive dressing over the insertion site