



Policy Name CHEST TUBE DRAINAGE WITH PLEUREX CATHETER (INTERMITTENT OR STRAIGHT DRAINAGE)		Policy Number: 0240
		Effective Date: February 21, 2007
Approved By: Management Committee	Drafted by: Clinical Care Coordinator	Review Date: January 23, 2018
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Classification: Pain and Symptom Management		Page No: Page 1 of 4

POLICY

Registered Nurses (RN) at The Salvation Army Agapé Hospice are able to drain pleural catheters following appropriate standards and procedures.

Definitions

Pleural effusion: Accumulation of excess fluid in the pleural space usually secondary to cancer or chronic respiratory conditions/

Pleural catheter: Chest tube drain consisting of a catheter with multiple drainages perforations along the proximal end to allow fluid to enter the catheter and a valve on the distal end to prevent fluid from leaking out or air from entering the catheter.
(pleurex)

PROCEDURE

1. The physicians must order the drainage of the pleural catheter indicating:
 - Frequency of drainage.
 - Maximum amount of fluid to be drained at once.
2. **Sterile technique** must be used for intermittent drainage of the pleurex catheter.
3. If the family was performing this procedure at home and wish to continue to do the drainage of their family members' pleural catheter at the hospice. The physician must write an order indicating the family may continue to do this procedure. RNs will provide any assistance required by the family.
4. The pleural catheter dressing must be changed each time intermittent drainage is done. If intermittent drainage is discontinued or is being done on an as needed (PRN) basis the dressing should be changed every seven (7) days and as needed.
5. Pleural catheters attached to a straight drainage system should be emptied daily and as needed using clean technique.
 - Apply gloves.
 - Cleanse the drainage cap with an alcohol swab prior to opening and again after drainage cap is closed.
 - Discard drainage fluid into the toilet.

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Equipment

Pleurex Drainage Kit (**Check expiry date**)

• **Sterile Technique**

1. Wash hands thoroughly, apply non-sterile gloves
2. Remove the old pleural catheter dressing.

NB: Do not use scissors or sharp objects around the pleural catheter.

3. Remove gloves and wash hands
4. Open the pleurex drainage kit
5. Remove the sterile procedure pack, open and unwrap the sterile wrapper using this as your sterile field
6. Remove the vacuum bottle with attached drainage line from the pleurex drainage kit. Ensure that the support clip on the vacuum bottle is in place and the vacuum seal on the bottle is not broken.
7. Unwrap and uncoil the drainage line tip, placing the tip within the sterile field.
8. Apply sterile gloves.
9. Prepare sterile dressing items, such as opening swabs and valve cap.

• **Draining Fluid from the Pleural Cavity**

1. Check that squeeze clamp on drainage line is tightly closed to preserve the vacuum.
2. Open the slide clamp on the drainage line nearest to the vacuum bottle.
3. Remove the cap from the drainage line tip and lay the tip back on the sterile field.
4. Using a sterile gauze to hold the pleural catheter, place the slide clamp from the pleurex drainage kit on the pleural catheter and close the clamp
5. Continuing to use sterile gauze to hold the pleural catheter, clean the pleural catheter valve cap with an alcohol swab. Allow to dry then remove and discard the old valve cap
6. Clean the valve sides with a sterile alcohol swab. Do not push the swab into the valve.
7. Insert the tip of the vacuum bottle drainage line into the catheter valve. Push the tip in until it locks.

NB. You will feel and hear a "click" when properly connected.

8. Open the slide clamp on the vacuum bottle and on the pleural catheter.

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9. Release the squeeze clamp on the drainage line. Fluid will flow into the vacuum bottle. Control the flow by partially closing the squeeze clamp.
 10. Drain the pleural fluid as tolerated or as ordered by the physician.
Discontinue if: chest discomfort; increase in coughing; or increase in shortness of breath. The amount drained should be no more than 1000ml or as ordered by the physician.
 11. When the bottle is full or when flow stops, close the squeeze clamp on the drainage line. Use a second bottle if necessary following the above steps.
- **Terminating the Drainage**
 1. When the drainage is complete, hold the pleural catheter with sterile gauze, close the slide clamp and remove the drainage line tip from the pleural catheter.
 2. Using an alcohol swab, clean the catheter valve and allow to dry.
 3. Place the new cap over the catheter valve and twist it clockwise until it snaps into its locked position.
 4. Remove the slide clamp from the pleural catheter.
 - **Placing a New Dressing**
 1. Clean around the pleural catheter site with a Chlorhexadine swab. Allow skin to dry.
 2. Starting at the insertion site clean the catheter with an alcohol swab, working from the proximal to the distal end.
 3. Place the sterile split foam pad around the insertion site.
 4. Coil the pleural catheter into loops on top of the foam pad and hold in place.
 5. Cover the catheter with sterile gauze.
 6. Apply the transparent self-adhesive dressing and peel away the paper backing ensuring a complete seal to the skin. Date and initial the dressing.
 7. Drain the drainage fluid into the toilet and discard tubing and vacuum bottle into a garbage bag.
 8. Remove your gloves and wash your hands.
 - **Document in the Resident's Health Record**
 1. Amount and colour of drainage
 2. Any complications noted such as drainage, redness or swelling at the insertion site



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3. How the Resident tolerated the procedure, include any symptoms experienced such as increase pain, shortness of breath or cough.
4. Any education done with the Resident or family.
5. Notify physician of any concerns.

REFERENCE

[Regional Nursing Policy and Procedure Manual; Chest Tube Drainage- Intermittent or Continuous \(Using Pleurex Catheter\); Section C-5, Pgs. 1 – 7, Dated June 2005.](#)

[Home Care Policy and Procedure Manual; Malignant Pleural Effusion, Dec. 7, 2001, Pgs. 1 - 4.](#)

[Denver Biomedical Inc. Pleurex Drainage Kit: Instructions for Use. Product monograph](#)