

CONNECTICUT VALLEY HOSPITAL
Nursing Policy and Procedure Manual

SECTION D PHYSIOLOGICAL ADAPTATION
CHAPTER 17 PHYSIOLOGICAL NURSING CARE

POLICY & PROCEDURE : 17.5.5 PLEURX CATHETER DRAINAGE

Standard of Practice:

Ensure safe drainage of pleural fluid using Pleurx catheter drainage system.

Standard of Care:

Patients needing pleural fluid drainage can expect a safe, efficient, and private procedure completed by a Nurse.

Policy:

Ambulatory Care Physician/PA/APRN will order pleural drainage 1-2 times/week to be completed at the bedside or other private area using Denver Biomedical equipment. Call Middlesex Radiology (860)344-6293 with any questions.

Procedure: Preliminary set-up

- A. Procedure is best completed by 2 nurses, a sterile Nurse and an assist Nurse.
- B. Set up clean work area on a table, counter, or directly on the patient's bed.
- C. Explain the procedure to the patient.
- D. Have the patient lying on his/her side with the pleural catheter side up.
- E. Wash hands thoroughly.
- F. The assist Nurse removes transparent adhesive dressing from catheter site and assesses for redness, swelling or fluid around catheter site.
- G. Gather necessary supplies
 - 1. Denver Pleurx #50-7510 Kit
 - 2. Extra pair of sterile gloves
 - 3. Betadine pads/swabs.
- H. The sterile Nurse puts on sterile gloves and uses the sterile paper wrapper as a sterile drape.
- I. The assist nurse opens the drainage line, valve cap, drain sponges, gauze and drops items onto sterile field.

Preparing for Drainage by Sterile Nurse:

- A. Clamp the catheter line with blue clamp provided in the kit.
- B. Squeeze the clamp on the drainage line completely closed.
- C. Hold the drainage line near the access tip and remove the cover with your other hand.
- D. Hold the base of the catheter valve and remove the cap by twisting it counterclockwise and pulling gently. Discard the cap.

- E. While holding the base of the catheter valve in one hand, clean around the valve opening with an alcohol pad.
- F. Continue holding the catheter near the valve. Pick up the drainage line with your other hand and insert the access tip securely into the valve. You will feel and hear a click when the access tip and valve are locked together.

Drainage by Sterile Nurse:

- A. Release the clamp on the catheter line.
- B. Press the top of the drainage bottle down to open the vacuum seal.
- C. Release the clamp on the drainage line to begin drainage. Fluid will now flow into the drainage bottle.
- D. The flow may slow down when the fluid is completely drained or if there is a collapsed segment of lung (atelectasis) adjacent to the Pleurx catheter tip.
- E. Stop the procedure by clamping the drainage line at any time if patient reports pain. Wait a few minutes and resume draining. If patient experiences pain after resuming procedure, stop and notify MD/APRN.
- F. When the fluid stops draining or reaches 1000cc, squeeze the clamp on the drainage line completely closed. Do not drain more than 1000cc.

Post Drainage by Sterile Nurse:

- A. Clamp the catheter line.
- B. With the drainage line in one gloved hand and the catheter valve in the other hand, pull the access tip out of the valve in a firm, smooth motion. Set the drainage line down.
- C. Clean the valve with an alcohol pad.
- D. Place the new cap over the catheter valve and twist it clockwise until it snaps into its locked position.

Placing a New Dressing by Sterile Nurse:

- A. **Do not let alcohol touch the catheter line as it may degrade the plastic line.** Clean *around* the catheter site using an alcohol pad.
- B. If necessary, (i.e., body fluids), clean the catheter line at the entry site to the body using a *betadine* pad/swabs.
- C. Place the drainage sponge (with the slit cut out) around the catheter.
- D. Wind the catheter into two loops and place it over the drainage sponge.
- E. Cover the looped catheter with a 4x4 gauze sponge.
- F. Cover the sponge with transparent adhesive dressing. You may remove gloves at this time as the transparent tape is difficult to handle with gloves
- G. Dispose the drainage line and bottle in biohazard waste container.

If signs of atelectasis, notify Physician/PA/APRN.

Documentation:

Record the amount of fluid drained in the Integrated Progress Notes.
Also, record as output if patient on I and O.

Reference: www.denverbio.com. Go to “Physician/Health Care Provider” tab and drag down to “Pleurx Pleural Catheters.” Look to the right side of the page and click on “Drainage Instructions for Use.” and Denver Biomedical Video “Use of the Pleurx Drainage System”