

Introduction

Chest drain is a plastic tube used to remove abnormal collection of air, blood or fluid from the pleural cavity. The evacuated pleural space will resume negative pressure for normal expansion of the lung.

The Operation

1. Chest drain insertion is a sterile minor surgical procedure performed under local anesthetic or with sedative.
2. A small skin incision is made in the axillary area on the affected side of the chest. A chest drain will be inserted through the incision. The external end of the tube is connected to a drainage system or low suction machine.
3. Chest drain will be removed when leaking of air or fluid has ceased, and patient has no discomfort after clamping of the tube.
4. A stitch will be used to anchor the tube in position if chest tube needs to be kept.
5. If air or fluid leak continued or medications need to be given through the tube, the tube will have to stay in your body for a number of days.

Preoperative Preparation

1. Be relaxed and take breathing as instructed.
2. Maintain posture of body and arm as directed. Do not touch the sterile field.

Postoperative Instruction

General

1. Move gently and slowly to avoid dislodgement of the drain.
2. Do not pull, twist, clamp or apply pressure on the drain tube.
3. Put the chest drain bottle at a level below the chest or on the floor. Keep air-sealed.
4. Inform the doctor/nurse if there is difficulty in breathing or excessive pain.
5. Adopt a semi-recumbent position to facilitate lung expansion and change posture slowly and regularly to facilitate drainage from the chest cavity.
6. Take deep breathing and coughing exercise and early mobilize to help recuperate lung function and prevent chest infection.
7. The hospital stay is usually 5-7 days.

Wound Care

1. Keep dressing clean and dry.
2. Depending on how much drainage and the result of CXR, the drain will be removed in 2-7 days.

Common Risks and Complications

1. Pain, bleeding, bruises, bone injury and air leaking into subcutaneous space.
2. Persistent leakage of air/fluid (may require surgical operation).
3. Dislodgement of the tube (may require re-insertion of another tube).
4. Infection.
5. Re-accumulation of air in the pleural cavity after removal of the tube (may require re-insertion of another tube).
6. Re-expansion pulmonary oedema (exacerbation of respiratory distress after chest drain insertion).
7. Massive bleeding, Penetration into adjacent organs, Lung collapse, Mortality etc.

Things to take note after discharge

1. Contact your doctor or a nearby Accident & Emergency Department if you find increasing discharge, pain or redness around the wound, high fever over 38°C or 100°F, etc.
2. Take analgesics prescribed by your doctor as necessary.
3. Keep the wound dressing clean and dry, change the dressing if necessary.
4. Continue the breathing exercises to help with the recovery.
5. Resume daily activity gradually. Heavy lifting and strenuous exercises should be avoided for first 1-2 months.
6. Attend follow-up consultations as scheduled.

Remarks

This is general information only and the list of complications is not exhaustive. Other unforeseen complications may occasionally occur. In special patient groups, the actual risk may be different. For further information please contact your doctor. Evangel Hospital reserves the right to amend this leaflet without prior notice. We welcome suggestions or enquiries on the information provided in this leaflet. Please contact our Healthcare professionals so that we could follow up and make improvement.

Reference

Hospital Authority: "Chest Tube Insertion" (2018)

Smart Patient: http://www.ekg.org.hk/public/pdfReader.jsp?http://www.ekg.org.hk/pilic/public/Paed_PILIC/Paed_ChestTubeInsertion_0270_eng.pdf (12-07-2023)