This protocol covers chest tubes. Chest tubes are used to treat conditions that disrupt the pleural space.

A. Perform **Inter-Facility Transport Assessment (IFTA) Procedures Patient Care Protocol 9204** and follow the proper protocol for medical management based on clinical presentation.

B. Perform a pulmonary assessment to include:

   a. Respiratory rate

   b. Work of breathing

   c. Breath sounds

   d. SpO2

C. Inspect the dressing.

   a. Note any drainage

   b. Assess the insertion site for subcutaneous emphysema or tube migration

D. Keep all tubing free of kinks, loops and occlusions.

E. Promote drainage.

   a. Keep the chest tube drainage unit below the level of the patient's chest.

F. Water Levels

   a. Monitor water levels in the water-seal and suction-control chambers.

G. Tidaling

   a. Be aware that tidaling—fluctuations in the water-seal chamber with respiratory effort—is normal. The water level increases during spontaneous inspiration and decreases with expiration.

   b. However, with positive-pressure mechanical ventilation, tidaling fluctuations are the opposite: the water level decreases during inspiration and increases during expiration.

   c. If tidaling doesn't occur, suspect the tubing is kinked or clamped, or a dependent tubing section has become filled with fluid.

H. Bubbling

    a. Intermittent bubbling, corresponding to respirations in the water-seal chamber, indicates an air leak from the pleural space; it should resolve as the lung reexpands.

    b. If bubbling in the water-seal chamber is continuous, suspect a leak in the system.

        i. To locate the leak's source, such as a loose connection or from around the site, assess the system from the insertion site back to the chest tube drainage unit.

>   ii. If bubbling in water-seal is continuous, contact **Medical Command**

I. Note:

    a. Don't milk, strip, or clamp the chest tube.

    b. Avoid aggressive chest-tube manipulation

> **In the event of disconnection Contact Medical Command**