

RSPT 2420 SELF ASSESSMENT - MODULE D: CHEST TUBES

1. Name the two basic components of a chest tube drainage system
 - A. **CHEST TUBE**
 - B. **WATER SEAL**

2. Name the two locations for chest tube insertions
 - A. **IF THE TUBE IS TO DRAIN AIR, IT IS PLACED IN THE ANTERIOR CHEST, 2ND INTERCOSTAL SPACE IN THE MID-CLAVICULAR LINE, OR 4TH INTERCOSTAL SPACE, ANTERIOR AXILLARY LINE.**
 - B. **IF THE TUBE IS TO DRAIN FLUID, IT IS PLACED BETWEEN THE 4 OR 5 INTERCOSTAL SPACE IN THE MID-AXILLARY LINE.**

3. A pneumothorax less than **10 %** may not need a chest tube inserted.

4. The most common location for chest tube insertion for a pneumothorax is the **2ND** intercostal space along the **MID-CLAVICULAR** line or the **4TH** intercostal space along the **ANTERIOR AXILLARY** line.

5. Name the three bottles in a chest tube drainage system.
 - A. **DRAINAGE**
 - B. **WATER SEAL**
 - C. **SUCTION CONTROL**

6. In regards to question #5, which one acts as a one way valve? **WATER SEAL**

7. The water seal can be identified by the tube that is inserted **1 TO 2** cm below the surface of the water.

8. Define tidaling. **FLUCTUATIONS IN THE WATER LEVEL.**

9. Normal tidaling is **2 TO 6** cm H₂O.

10. What does an increase in tidaling mean? **LARGE FLUCTUATIONS IN TIDALING MEAN THAT THERE IS INCREASED WOB IF THE PATIENT IS ON A VENTILATOR.**

11. When observing for tidaling, which way does the water move during spontaneous breathing?
 - A. Inspiration: **THE WATER MOVES UP THE TUBE ON INSPIRATION**
 - B. Expiration **THE WATER MOVES DOWNWARD ON EXPIRATION**

12. When observing for tidaling, which way does the water move during a mechanical ventilator breath?
 - A. Inspiration **THE WATER MOVES DOWNWARD ON INSPIRATION**
 - B. Expiration **THE WATER MOVES UP THE TUBE ON EXPIRATION**

13. Would you expect to see tidaling in a mediastinal chest tube? **NO**
14. What controls the amount of suction applied to the patient's intrapleural space in a chest tube drainage system? **THE DEPTH OF THE SUCTION CONTROL TUBE**
15. Insertion of the chest tube should be
- A. **Above the rib**
 - B. Below the rib
16. What can happen if the patient is still draining air or fluid from the chest tube and the chest tube is clamped? **ANYTIME THE TUBE IS CLAMPED, NO AIR OR LIQUID CAN ESCAPE FROM THE PLEURAL SPACE CREATING THE POSSIBILITY OF A TENSION PNEUMOTHORAX**
17. Name three times the chest tube may be clamped
- A. **TO LOCATE THE SOURCE OF A AIR LEAK WHEN CONTINUOUS BUBBLING OCCURS IN THE WATER SEAL CHAMBER**
 - B. **TO CHANGE THE DRAINAGE SYSTEM IF IT IS FULL OR CRACKED.**
 - C. **TO VERIFY THAT THE PATIENT IS READY TO HAVE THE CHEST TUBE REMOVED**
18. Why is the chest tube clamped for up to 24 hours prior to removing the chest tube?
- A. **TO VERIFY THAT NO LEAKS ARE PRESENT**
19. List indications that the chest tube may be ready for removal
- A. **DRAINAGE DECREASES TO LITTLE OR NONE**
 - B. **TIDALING HAS STOPPED; NO FLUCTUATIONS**
 - C. **BREATHING EASIER; NO SOB; GOOD BREATH SOUNDS**
 - D. **X-RAY SHOWS RE-EXPANSION**
20. Prior to removing the chest tube, the patient will be asked to perform the **VALSAVA** maneuver.
21. When assessing a chest drainage system, in which order would you assess?
- A. Tubing, drainage unit, patient
 - B. Drainage unit, tubing, patient
 - C. **Patient, tubing, drainage unit**
 - D. Patient, drainage unit, tubing
22. Drainage fluid in the collection bottle of greater than **100** cc/hour is cause for concern and the physician should be notified.
23. During mechanical ventilation, is it possible to lose tidal volume through the chest tube drainage unit? **YES**
24. What's the problem when you have excessive bubbling in the suction control bottle? **EXCESSIVE SUCTION PRESSURE**

25. If tidaling has stopped, which of the following could be the reason?
- A. Lung has reexpanded
 - B. A clot has developed in the tubing
 - C. The tubing is kinked
 - D. The suction is on
 - E. **All the above**
26. What's the problem when you have excessive bubbling in the water seal? **A LEAK IN THE SYSTEM OR IN THE PATIENT; CLAMP TUBE ALONG THE PATHWAY TO THE DRAINAGE SYSTEM TO LOCATE LEAK CHEST TUBE PULLED OUT**
27. Should a one bottle system ever be used to drain fluid from the intrapleural space? **NO, ONLY FOR EMERGENCIES.**
28. Drainage of clear fluid from the pleural space with a low protein count less than 3 gms% indicates the pleural fluid is a **TRANSUDATE.**
29. What should you do if the chest tube comes out?
- A. **CALL PHYSICIAN**
 - B. **COVER WOUND WITH STERILE DRESSING; IF PATIENT BECOMES SOB – UNCOVER.**
 - C. **LEAVE WOUND OPEN IF ON A MECHANICAL VENTILATOR**
30. What medications may be given prior to chest tube insertion?
- A. **LOCAL ANESTHETIC**
 - B. **SEDATION**
31. The doctor has requested 20 cm H₂O suction pressure to the drainage unit. You notice the tip of the suction control tube is 10 cm below the surface of the water in the suction control bottle. The vacuum control is set at 20 cm H₂O. What should you do?
- A. Increase the suction pressure from the wall
 - B. Add water to the water seal
 - C. **Add 20 cc of water to the suction control bottle**
 - D. Remove 10 cc of water from the suction control bottle
 - E. Nothing, the system is operating correctly.
32. If you see continuous bubbling in the water seal, what would you do to correct the problem?
- A. **VIGOROUS, CONTINUOUS BUBBLING IN THE WATER SEAL CHAMBER INDICATES A LEAK IN THE SYSTEM OR IN THE PATIENT; CLAMP TUBE ALONG THE PATHWAY TO THE DRAINAGE SYSTEM TO LOCATE LEAK CHEST TUBE PULLED OUT - CALL PHYSICIAN. _**