



ASSISTING FOR THORACENTESIS

Key Terms

INTRODUCTION:

Thoracentesis is the procedure in which a puncture is made into the chest wall to withdraw fluid or air from the pleural cavity for diagnostic or therapeutic purposes. A thoracotomy needle is inserted through the intercostal area into the pleural cavity. Suction is then applied by syringe to aspirate the accumulated fluid or air. The procedure is usually done at the patient's bedside.

PURPOSE:

Thoracentesis may be performed for diagnostic and/or therapeutic reasons

The diagnostic findings are classified into two categories, exudate and transudate, and include, but are not limited to, the following:

- Infections (viral, fungal, or bacterial)
- Cancer
- Systemic lupus erythematosus is an autoimmune disease in which the body attacks its own tissues and can affect every organ system in the body.
- Pancreatitis is inflammation of the pancreas.
- Pulmonary embolism, which is a clot in the lung that causes lung tissue necrosis (death of lung tissue)
- Empyema is a collection of pus in the pleural space
- Congestive heart failure
- Tuberculosis

The therapeutic use of thoracentesis may be helpful in relieving symptoms such as shortness of breath and pain.

PROCEDURE:

S.NO	STEPS	RATIONALE
1.	<p><i>Before the Procedure</i></p> <p>Check the doctor's order.</p>	To avoid errors
2.	Identify the client correctly with atleast two patient identifiers	To avoid errors
3.	<p>Explain and emphasize the importance of the procedure.</p> <ul style="list-style-type: none"> ➤ Inform that she will be experiencing mild pain on the site where the needle was pricked ➤ Inform the client that the procedure takes only few minutes, depending primarily on the time it takes for fluid to drain from the pleural cavity. <p>inform the client not to cough while the needle is inserted</p>	<p>Reassure the patient and to allay anxiety</p> <p>In order to avoid puncturing the lung</p>

4.	Collect patients previous diagnostic procedure, such as a chest x-ray, chest fluoroscopy, ultrasound, or CT scan, performed prior to the procedure.	To assist the physician in identifying the specific location of the fluid in the chest that is to be removed.
5.	The patient may receive a sedative prior to the procedure.	To help the patient relax
6.	Asked the patient to remove any clothing, jewelry, or other objects	Prevents interference during the procedure
7.	The area around the puncture site may be shaved.	
8.	Vital signs (heart rate, blood pressure, breathing rate, and oxygen level) are to be monitored before the procedure.	To get the patients baseline hemodynamic status
9.	<i>During the Procedure</i> Support the client verbally and describe the steps of the procedure as needed.	Reassure the patient at alleviate anxiety
10.	Vital signs (heart rate, blood pressure, breathing rate, and oxygen level) are to be monitored during the procedure.	To assess any changes in the patients hemodynamic changes.
11.	The patient may receive supplemental oxygen as needed, through a face mask or	To maintain optimal saturation

	nasal cannula (tube).	
12.	Observe the client for dyspnea, pallor, and coughing	To know the signs of respiratory distress
13.	Place the patient in a sitting position with arms raised and resting on an overbed table. If the patient is unable to sit, the patient may be placed in a side-lying position on the edge of the bed on unaffected side.	This position aids in spreading out the spaces between the ribs for needle insertion.
14.	The skin at the puncture site will be cleansed with an antiseptic solution.	To do procedure in aseptic technique
15.	The patient will receive a local anesthetic at the site where the thoracentesis is to be performed.	To avoid pain during the procedure and to gain cooperation
16.	Don't remove more than 1000 ml of fluid from the pleural cavity within first 30 minutes.	Can cause sudden collapse for lungs
17.	Place a small sterile dressing over the site of the puncture.	To avoid puncture site infection

18.	<p><i>After the Procedure</i></p> <p>Observe changes in the client's cough, sputum, respiratory depth, and breath sounds, and note complaints of chest pain.</p>	To prevent complications
19.	Position the client lie on the unaffected side with the head of the bed elevated 30 degrees for at least 30 minutes	This position facilitates expansion of the affected lung and eases respirations
20.	Transport the specimens to the laboratory.	To avoid missing of sample
21.	The dressing over the puncture site will be monitored for bleeding or other drainage.	To avoid immediate complication
22.	Check vital signs every 15minuts for the first 1 hour and every 30 min for next 1hr, 1hr for next 6 hours and every 4 hours for 24 hours.	Vital signs are the first indicator for any complication.
23.	Assess pain hourly, and administer analgesia as prescribed, documenting administration of drugs as necessary;	Pain can be an indicator for any complication after procedure
24.	Monitor for after effects and report any abnormalities immediately. Inform duty registrar if there is respiratory distress, drop in saturation, hypotension, bleeding in the	To assess the patient at the earliest for any complication

	Puncture site, Pain or deterioration in general condition.	
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 **Watch out**

Watch for respiratory distress, drop in saturation, hypotension, bleeding in the Puncture site, Pain or deterioration in general condition.

DOCUMENTATION

- Document all relevant information.
- Include date and time performed; the primary care provider's name; the amount, color, and clarity of fluid drained; and nursing assessments and interventions provided.
- Check vital signs every 15 minutes for the first 1 hour and every 30 min for next 1hr, 1hr for next 6 hours and every 4 hours for 24 hours.



PATIENT FAMILY EDUCATION:

- Instruct the patient to take a deep breath during the insertion.
- Instruct the patient not to cough during the procedure to avoid complication.
- Explain the client to lie on the unaffected side with the head of the bed elevated 30 degrees for at least 30 minutes
- Explain the patient to intimate severe pain or any discomfort.