

NEEDLE THORACOSTOMY		
Name: _____ Date: _____ License # _____		
Tension pneumothorax is defined as air under pressure in the pleural space. Needle thoracostomy should be performed to aid in a rapidly deteriorating adult or pediatric patient with severe respiratory distress.		
A. <u>Assessment/Treatment Indicators:</u>		
<ol style="list-style-type: none"> 1. Restlessness, anxiety, or decreased LOC. 2. Diminished or absent breath sounds on the affected side. 3. Possible tracheal deviation away from the affected side (late sign). 4. Shock syndrome (weak rapid pulse, hypertensive initially, with hypotension a late find). 5. Distended neck veins (JVD). 6. Progressively worsening dyspnea/cyanosis. 		
B. <u>Potential complications:</u>		
<ol style="list-style-type: none"> 1. Conversion from a closed pneumothorax to an open one 2. If there is not a pneumothorax, insertion of a needle will produce a pneumothorax. 3. Laceration of the lung or laceration of the intercostal vessels. 		
<u>Equipment:</u>		
<ol style="list-style-type: none"> 1. 14 or 16 gauge 2 to 2 ½ inch needle and cannula or patients > 50kg or 14 or 16 gauge 2 to 2 ½ inch needle and cannula, 18g, 1 to 1 ¼ inch needle and cannula for patients less than 50kg 	<ol style="list-style-type: none"> 2. Betadine swab 3. 10 ml syringe 4. Tape 5. Disposable bag valve device – BVM 6. One-way flutter valve 	
Performance Criteria	Pass	Fail
1. Uses universal precautions.		
2. States indications and possible complications of the procedure.		
3. Assembles equipment and selects appropriate size needle and cannula.		
4. Locates insertion site at the second intercostal space, mid-clavicular line or the fourth intercostal space at the midaxillary line.		
5. Prepare area with Betadine swap.		
6. Firmly inserts the needle (attached to syringe) perpendicular to the chest wall, over the top of the rib until pleura is penetrated as indicated by one or more of the following: <ol style="list-style-type: none"> a. A “popping sound” is heard, or giving away sensation is felt. b. A “hissing” noise follows evidence of a tension pneumothorax. c. Ability to aspirate free air or blood into the syringe. 		

Performance Criteria		Pass	Fail
7.	Advances the catheter and removes needle and syringe. Adds flutter or Heimlich Valve to prevent re-accumulation of air in the pleural space.		
8.	Secures needle hub in place with tape over Benzoin tincture or with other approved device.		
9.	Reassesses patient lung sounds, respiratory status immediately, and every five (5) minutes thereafter.		
10.	Considers the following: a. The procedure may have to be repeated if the tension is not relieved. b. Air transport: The needle thoracostomy should be done prior to takeoff to allow for escape of air that may accumulate in the pleural space with atmospheric pressure changes.		

Please provide comments for any item that is marked as failed: _____

Name & Signature of Evaluator

Date