



# Yolo County Emergency Medical Services Agency

## Protocols

Revised Date: June 1, 2023

TENSION PNEUMOTHORAX	
Adult	Pediatric
<b>BLS</b>	
Assess vital signs O <sub>2</sub> , titrate SpO <sub>2</sub> > 94% Lung Sounds Assist ventilations as needed	
<b>ALS</b>	
Cardiac Monitor, Waveform EtCO <sub>2</sub> , Vascular Access	
<b>Indication</b>	
<ul style="list-style-type: none"><li>• Blunt or Penetrating Chest Trauma with:<ul style="list-style-type: none"><li>◦ hemodynamically unstable (tachycardia, tachypnea, hypotension, AMS, cyanosis, jugular vein distention, tracheal deviation, respiratory failure) with suspected tension pneumothorax and decreased breath sounds</li><li>◦ Traumatic cardiac arrest patients with signs of chest trauma</li></ul></li></ul>	
<b>Procedure</b>	
<ul style="list-style-type: none"><li>• Choose site:<ul style="list-style-type: none"><li>◦ Preferred: Lateral 4<sup>th</sup> or 5<sup>th</sup> intercostal space, mid-axillary line (must be above the anatomic nipple line)</li><li>◦ Second: Anterior 2<sup>nd</sup> intercostal space, mid-clavicular line</li></ul></li><li>• Use minimum 3.5-inch Thoracostomy needle (14 g or larger)</li><li>• Insert the needle at a 90-degree angle just over the superior border of the rib</li><li>• Advance until a gush of air or blood returns freely, then advance only the catheter to the chest wall and remove the needle</li><li>• Leave the catheter in place, do not attach anything to the catheter</li><li>• Allow to vent freely</li><li>• Monitor and continue to reassess breath sounds</li><li>• If no return of air or blood, consider making attempt at second site</li></ul>	
<b>Direction</b>	
<ul style="list-style-type: none"><li>• Two attempts only per affected side</li><li>• Cover any open wounds with a chest seal or occlusive dressing</li><li>• Contact Base Hospital for additional treatment</li></ul>	