POLICY: 554.23
TITLE: Tension Pneumothorax

EFFECTIVE: 12/23/20
REVIEW: 12/2025
SUPERCEDES:

APPROVAL SIGNATURES ON FILE IN EMS OFFICE

TENSION PNEUMOTHORAX

I. AUTHORITY
Health and Safety Code, Division 2.5, California Code of Regulations, Title 22, Division 9

II. PURPOSE
To serve as a patient treatment standard for EMRs, EMTs, and Paramedics within their scope of practice.

III. PROTOCOL
Physical signs may include: Systolic BP < than 90, altered level of consciousness, chest pain, decreased breath sounds, increased resonance on side of collapsed lung, Jugular Venous Distension (JVD), tracheal deviation away from side of collapsed lung, asymmetrical chest motion and/or crepitus.

Multi-system trauma and scene conditions often make diagnosis difficult. Remember, **this is a rapid obstructive shock**, NOT a respiratory problem

EMR STANDING ORDERS	
Patient Assessment	Circulation, Airway and Breathing, assess vitals q 5 minutes
Oxygen Administration	Provide oxygen if appropriate
Bleeding control	Direct pressure with appropriate bandage. Apply occlusive dressing as needed

EMT STANDING ORDERS	
Note	Must perform items in EMR standing orders if applicable
Pulse Oximetry	Report initial reading to paramedic if applicable

PARAMEDIC STANDING ORDERS	
Note	Must perform items in EMR and EMT standing orders if applicable
Monitor	Treat heart rhythm as appropriate
Needle Thoracostomy	10 or 12 gauge or approved NCD kit. Minimum 3.25-inch length inserted into affected side in the second intercostal space, mid-clavicular line. Perform on other side if no response to treatment and the tension pneumothorax physiology persists. Secure catheter
IV/IO Access	Two large bore IV/IO. If systolic BP is < than 90, give 250 ml boluses to systolic until BP 90 mmHg. Reassess after each bolus
Observe	Continue to monitor for signs of recurrence of a tension pneumothorax and for obstruction or dislodgement of thoracostomy catheter

Clinical PEARLS:

- Needle Thoracostomy may only be performed on second intracoastal, mid-clavicular site
- Record and document pulse oximetry readings pre and post procedure
- Secure airway with simplest technique, i.e. BLS airway unless unable to manage
- Intravenous access is preferred over Intraosseous unless patient is unstable