

Southern Illinois Regional EMS System

DD-11 CHEST TRAUMA

BLS/ILS/ALS

General Management:

- Initial Trauma Care Special considerations:
 - 100% oxygen NRM or assist with BVM
 - Titrate oxygen to O₂ sat >94% and ETCO₂ (if available)
 - (ALS/ILS) 2 IV/IO of NS run to maintain systolic of 90mmHg
 - Rapid transport
 - Notify receiving hospital and Medical Control ASAP

Open Pneumothorax (Sucking Chest Wound):

- Convert open pneumothorax to closed:
 - Ask patient to maximally cough or exhale
 - Immediately apply occlusive dressing:
 - Tape on 3 sides to create a flutter valve
 - Monitor vital signs after procedure:
 - Ventilatory status
 - Circulatory status
- If patient stabilizes:
 - Continue initial trauma care
 - Follow other treatment protocol(s) as required
- If patient develops signs of tension pneumothorax:
 - Temporarily release side of dressing to allow air to escape
 - Recover wound
 - If signs of tension pneumothorax continue:
 - (ALS) Perform needle decompression per protocol

Flail Chest:

- Initial Trauma Care
- Maintain airway
- 100% oxygen NRM or assist with BVM
 - Titrate oxygen to O₂ sat >94% and ETCO₂ (if available)
 - Assist ventilations as needed to provide internal splinting
- Do not apply external splinting

Tension Pneumothorax: (unilateral absence of breath sounds, JVD, low BP, extreme Dyspnea, resistance to BVM ventilations, increased airway resistance, tracheal deviation).

- ALS:
 - Needle pleural decompression 2nd-3rd intercostal space (above 3rd or 4th rib), midclavicular line on affected side. (See Needle Decompression protocol)
 - If patient stabilizes:
 - Continue initial trauma care
 - Follow other treatment protocol(s) as required
 - Monitor for dysrhythmias
- BLS/ILS:
 - Initial trauma care and rapid transport

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(continued)

Pericardial (Cardiac) Tamponade: (Beck's Triad; narrow pulse pressure, JVD, muffled heart sounds) Breath sounds are usually present bilaterally.

- ALS/ILS:
 - Initial trauma care
 - 2 IV/IO of NS run to maintain systolic of 90mmHg
 - Additional fluids per Medical Control orders
 - Monitor for dysrhythmias
- BLS:
 - Initial trauma care and rapid transport

Massive Hemothorax: (hypovolemia, respiratory difficulty, flat neck veins, decreased or absent breath sounds).

- ALS/ILS:
 - Initial trauma care.
 - Treat hypovolemia - 2 IV/IO of NS run to maintain systolic of 90mmHg
 - Transport immediately
- BLS:
 - Initial trauma care and rapid transport

Note:

- Lethal injuries associated with chest trauma:
 - Pulmonary contusion.
 - Myocardial contusion.
 - Aortic disruption.
 - Diaphragmatic rupture.
 - Tracheobronchial disruption.
 - Esophageal disruption.