

## **TECC Principles for Medical Response to Explosive Events**

In general, the post blast environment is very dynamic with complex wounding patterns. Organization of the first responders is critical and requires common principles of response shared across law enforcement, EMS and Fire.

## **Direct Threat (DT) Phase:**

- Maintain situational awareness and assume the presence of multiple devices targeted at the retreating population and first responders.
- Perform necessary operations to secure and/or evacuate the scene, including addressing any fire that is immediately threatening the wounded or rescuers.
- If the immediate situation allows, apply commercial tourniquets on any extremity with major bleeding or amputation.

## **Indirect Threat (IDT) Phase:**

- Identify and secure a casualty collection point (CCP) outside of the DT zone. Consider use of vehicles or other geographic features to create a ballistic barrier for the CCP.
- Begin appropriate assessment and treat injuries according to the TECC principles.
  Consider need for decontamination and securing of patient clothes for evidence
- Control all remaining major bleeding. Use a combination of:
  - o Tourniquets or reassess applied tourniquets
  - o Direct Pressure
  - Wound Packing, Hemostatics and Pressure Dressings
- Airway management
  - Positioning
  - o Basic adjuncts (NPA) for unconscious or obtunded patients
  - o Supplemental oxygen as available
- Breathing
  - Assess for other chest injuries including:
    - Penetrating (bomb material, impaled objects (secondary blast), etc)
    - Flail segment
    - Sucking chest wounds (place occlusive dressings)
    - Inhalation Injuries
  - Maintain High Index of Suspicion for Possible Tension Pneumothorax and Systemic Air Embolism

- Needle chest decompression for signs of tension pneumothorax or respiratory distress
- o Primary Blast Injury
  - Use caution when ventilating these patients (rate and volume)
- Circulation
  - Assess and treat for shock
  - Remember tenants of damage control resuscitation and permissive hypotension, except with suspected TBI
- Head Injuries/Traumatic Brain Injury (TBI)
  - Keep head of bed/stretcher elevated approximately 30-45°
  - Consider c-collar for obtunded patients to maintain venous alignment (return)
  - o Maintain systolic BP > 100
- Attempt to maintain normothermia and deploy hypothermia prevention strategies
- Secondary Injuries
  - Musculoskeletal
  - o Eyes
  - o Tympanic membrane (TM) rupture
  - o Burns
- Document/Triage cards

## **Evacuation Care**

- Establish and secure staging area, be aware of targeted attacks on first responders
- Re-assess and continue all prior interventions, concentrating on bleeding control, airway, breathing, head injury management and heat loss prevention. Perform constant patient reevaluation due to rapidly changing condition.
- Triage for transport priority AND destination. Utilize "transportation" coordinator to ensure you do not overwhelm medical treatment facilities. Triage by evaluating TM rupture is not effective or recommended.
- Utilize available and appropriate resources to transport to appropriate facilities
- Primary Blast Injury may not be obvious and field clearance of any symptomatic patient is not advised. Maintain a high index of suspicion for other occult injuries.
- Communication with victims may be difficult due to loss of hearing or TBI.