



Tactical Emergency Casualty Care (TECC) Guidelines for BLS/ALS Medical Providers

DIRECT THREAT CARE (DTC) / HOT ZONE Guidelines*:

1. Mitigate any immediate threat and move to a safer position (e.g. initiate fire attack, coordinate ventilation, move to safe haven, evacuate from an impending structural collapse, etc).
 - a. Recognize that threats are dynamic and may be ongoing, requiring continuous threat assessments.
2. Direct the injured first responder to stay engaged in the operation if able and appropriate.
3. Move patient to a safer position:
 - a. Instruct the alert, capable patient to move to a safer position and apply self-aid.
 - b. If the patient is *responsive* but is injured to the point that he/she cannot self-evacuate, a rescue plan should be devised.
 - c. If a patient is *unresponsive*, weigh the risks and benefits of a rescue attempt.
 - i. Remote medical assessment techniques should be considered to identify patients who are dead or have apparently non-survivable wounds.
 - ii. Rescue attempts should only be initiated on patients with wounds that appear to be survivable.
4. Stop life threatening external hemorrhage with a tourniquet. Consider moving to safety prior to application of the tourniquet depending on the level of immediate threat, severity of the bleeding and the evacuation distance to safety.
 - a. Apply direct pressure to wound, or direct capable patient to apply direct pressure to own wound and/or (self-apply) own effective tourniquet.
 - b. Tourniquet application:
 - i. Apply the tourniquet(s) as high on the limb as possible, including over the clothing if present.
 - ii. Tighten as much as possible and move to safety.
5. Consider quickly placing patient, or directing the patient to be placed, in a position to protect airway.

* Care provided should be based upon individual first responder scope of practice/training, available equipment, local medical protocols, and medical director approval.



Tactical Emergency Casualty Care (TECC) Guidelines for BLS/ALS Medical Providers

INDIRECT THREAT CARE (ITC) / WARM ZONE Guidelines*:

1. Any injured person or responder with a weapon should have that weapon made safe/secured once the threat is neutralized and/or if mental status is altered.
2. **Major Bleeding:**
 - a. Assess for and control all sources of major bleeding:
 - i. If not already done during Direct Threat/Hot Zone Care, use a tourniquet or an appropriate pressure dressing with deep wound packing (either plain gauze or, if available, hemostatic gauze) to control life-threatening external hemorrhage that is anatomically amenable to such treatment.
 - *Tourniquet application:* Apply the tourniquet over the clothing as proximal as possible and tighten as much as possible, or if situation allows, consider fully exposing and evaluating the extent of the wound before applying tourniquet directly to the skin 2-3 inches above wound (DO NOT APPLY OVER THE JOINT) and tightening as much as possible.
 - *Pressure dressing application:* apply directly to the skin after the wound has been packed with either plain or hemostatic gauze to translate the surface pressure exerted by the bandage to the bleeding vessels deep in the wound.
 - For any traumatic total or partial amputation, a tourniquet should be applied in an appropriate location regardless of bleeding
 - ii. If major bleeding is in anatomic junctional area where that bleeding cannot be easily controlled by direct pressure and hemostatics/dressings, apply a junctional tourniquet device if immediately available.
 - b. Reassess all tourniquets that were applied during Direct Threat/Hot Zone Care. Consider checking a distal pulse, or if the situation allows, fully exposing the injury to evaluate the wound for effective hemorrhage control and to determine if the tourniquet is needed.
 - i. Tourniquets that are determined to be both *necessary and effective* in controlling hemorrhage should remain in place if the patient can be evacuated within 2 hours to definitive medical care.
 - ii. If existing tourniquet is *necessary but ineffective* (continued bleeding or a palpable distal pulse), either tighten the existing tourniquet further, or apply a second tourniquet, side-by-side and, if possible, proximal to the first to eliminate the distal pulse.

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- iii. If a tourniquet is determined based on wound assessment *to not be necessary*, use other techniques to control bleeding and remove the tourniquet.
 - c. Consider tourniquet downgrade or tourniquet conversion if there will be a delay in evacuation more than 2 hours. On any patient who is receiving resuscitation for hemorrhagic shock, ensure a positive response to resuscitation efforts (e.g. improving mentation and peripheral pulses normal in character) before downgrading or converting a tourniquet. Criteria for tourniquet downgrade or conversion:
 - Patient not in hemorrhagic shock
 - Able to subsequently monitor wound closely
 - TQ is not on an amputated or partially amputated limb
 - No prior unsuccessful attempts to remove the TQ
 - i. Downgrade: Expose the wound fully, identify an appropriate location at least 2-3 inches above the injury (not over a joint), and apply a new tourniquet directly to the skin. Once properly applied, the prior tourniquet can be loosened but should be left in place. Assess for bleeding.
 - ii. Conversion: Expose the wound fully, fully pack the wound with hemostatic or plain gauze, and properly apply a pressure dressing. Once properly applied, the prior tourniquet can be loosened but should be left in place. Assess for bleeding.
 - ii. If a tourniquet downgrade/conversion fails, it should not be attempted multiple times.
 - d. Expose and clearly mark all tourniquet sites with the time of tourniquet application.
3. **Airway Management:**
- a. If the patient is conscious and able to follow commands:
 - i. Allow the patient to assume any position of comfort. Do not force to lie down.
 - b. If the patient is unconscious or conscious but unable to follow commands:
 - i. Clear mouth of any foreign bodies (vomit, food, broken teeth, gum, etc.).
 - ii. Apply basic chin lift or jaw thrust maneuver to open airway.
 - iii. Consider placing a nasopharyngeal airway.
 - iv. Place patient in the recovery position to maintain the open airway.
 - c. If previous measures are unsuccessful and equipment is available under an approved protocol, consider:
 - i. Supraglottic Devices (e.g. King LT, LMA, iGel)
 - ii. Oro/nasotracheal intubation
 - iii. Surgical cricothyroidotomy (with lidocaine if conscious)
 - d. Consider applying oxygen if available.
4. **Respirations/Breathing:**
- a. All open and/or sucking chest wounds should be treated by immediately applying a vented or non-vented occlusive seal to cover the defect.
 - b. Monitor any patient with penetrating torso trauma for the development of a subsequent tension pneumothorax. The most common presentation will be a penetrating chest injury with subsequent progressive dyspnea/respiratory distress, hypoxia and/or hypotension, and/or increasing anxiety/agitation, often after the application of an occlusive chest seal.
 - c. If tension pneumothorax is suspected to be present or developing, decompress the chest on the side of the injury. Needle decompression should be performed with at

minimum a 14-gauge, 3.25 inch needle/catheter. Potential decompression sites/procedures include:

- i. Anterior decompression: Insert the needle in the 2nd intercostal space at the midclavicular line. Ensure that the needle entry into the chest is *lateral to the nipple line* and is *not* directed towards the heart.
- ii. Lateral decompression: Insert the needle in the 4-5th intercostal space perpendicular to the chest wall, anterior to the mid- axillary line on the injured side. This should be done only if properly trained and under an approved local protocol.
- iii. Non-invasive decompression: remove the occlusive dressing and physically “burp” the chest seal.

5. Intravenous (IV) Access:

- i. If immediate fluid resuscitation is required and is available, consider starting at least an 18-gauge IV or obtaining intraosseous (IO) access.

6. Tranexamic Acid

- a. If patient has injuries that could potentially require significant blood transfusion (e.g. presents in hemorrhagic shock in the setting of penetrating torso trauma, multiple amputation(s), and/or evidence of severe uncontrolled internal or external bleeding) consider administration of 1 gram of TXA as soon as possible.
 - i. Do *not* administer TXA later than 3 hours after injury.

7. Shock Management/Fluid Resuscitation:

- a. Assess for developing hemorrhagic shock
 - i. Altered mental status (in the absence of head injury) and weak or absent peripheral pulses are the best austere field indicators of shock.
 - ii. If equipment available, assess for abnormal vital signs (e.g. systolic blood pressure (SBP) <90mmHg with/without heart rate >100 bpm) or a shock index >1 (HR/SBP)
- b. If not in hemorrhagic shock:
 - i. Patient may drink if conscious, can swallow, and there is a confirmed delay in evacuation to care.
 - ii. No IV fluids necessary but consider intravascular access with saline lock.
- c. If hemorrhagic shock is present:
 - i. Resuscitate using permissive hypotension in the non-head injured patient. Administer IV fluid bolus (per agency protocol) to a goal of improving mental status, radial pulses, or, if monitoring is available, measured SBP>80mmHg. Repeat bolus once after 30 minutes if still in shock.
 - If blood products are available and able to be transfused under local protocols, resuscitate with plasma and packed red blood cells (PRBCs) in a 1:1 ratio.
- d. In a patient who has altered mental status due to suspected or confirmed traumatic brain injury, avoid any hypotension.
 - i. Resuscitate aggressively with fluid boluses to a goal of improving mental status, strong peripheral pulses or, if monitoring is available, maintain measured SBP>90-100 mmHg.
 - ii. Position patient with head elevated 30 degrees if possible.
- e. Prioritize for rapid evacuation any patient with traumatic brain injury or any patient,

especially those with penetrating torso injury, that is displaying signs of shock.

8. **Prevention of Hypothermia:**

- a. Minimize patient's exposure to the elements and subsequent heat loss.
 - i. Avoid cutting off or removing clothes unless absolutely necessary for wound evaluation.
 - ii. For public safety casualties, keep protective gear on or with the patient if feasible.
- b. Keep the patient covered, warm and dry.
 - i. Place the patient onto an insulated surface as soon as possible to decrease conduction from cold ground temperatures.
 - ii. Minimize exposure to the elements.
 - iii. Replace wet clothing with dry if possible.
 - iv. Cover the patient with dry blankets, jackets, poncho liners, sleeping bags, commercial warming devices or anything that will retain heat and assist in keeping the patient dry.
 - v. Warm fluids are preferred if IV fluids are administered.

9. **Reassess Patient:**

- a. Perform a rapid blood sweep/secondary survey, front and back, checking for additional injuries. Tearing or cutting clothes, or otherwise exposing the wound may be necessary.
- b. Inspect and consider dressing known wounds that were deferred for treatment in earlier steps of Indirect Threat Care.
- c. Consider splinting known/suspected fractures, including the application of pelvic binding devices/techniques for suspected pelvic fractures.

10. **Analgesia**

- a. Provide adequate analgesia as necessary for the patient.
 - i. For mild - moderate pain, consider oral non-narcotic medications. Avoid the use of non-steroidal anti-inflammatory medications (e.g. aspirin, ibuprofen, naproxen, ketorolac, etc) in the trauma patient as these medications interfere with platelet functioning and may exacerbate bleeding.
 - ii. For moderate – severe pain, consider use of narcotic medications (hydrocodone, oxycodone, transmucosal fentanyl citrate, etc.) and/or Ketamine (at analgesic dosages). Sedating medications require increased level of monitoring.
 - Have naloxone readily available whenever administering opiates.
 - Monitor for adverse effects such as respiratory depression or hypotension. Consider the effect of opioid-induced altered mental status on subsequent operations and required resources.
 - Consider adjunct administration of anti-emetic medicines.

11. **Burns:**

- a. Stop the burning process.
- b. Cover the burn area with dry, sterile dressings and initiate aggressive measures to prevent heat loss and hypothermia.
- c. Facial burns, especially those that occur in closed spaces, are likely associated with inhalation injury. Aggressively monitor airway status and, if available, oxygen

- saturation in such patients and consider early definitive airway management for respiratory distress, oxygen desaturation, or other signs of inhalational injury (e.g. hoarseness, stridor, throat pain).
- d. Smoke inhalation, particularly in a confined space, may be associated with significant carbon monoxide and cyanide toxicity.
 - i. Significant symptoms of smoke inhalation and carbon monoxide toxicity should be treated with high flow oxygen if available.
 - ii. Significant symptoms of smoke inhalation and cyanide toxicity should be considered candidates for cyanide antidote administration.
 - e. Estimate total body surface area (TBSA) burned to the nearest 10% using the appropriate locally approved burn calculation formula.
 - i. If burns are greater than 20% of Total Body Surface Area, fluid resuscitation should be initiated as soon as IV/IO access is established.
 - ii. If hypotension is also present, fluid resuscitation as per the guidelines #7. Permissive hypotension resuscitation principles for hemorrhagic shock take precedence over burn resuscitation.
 - f. All previously described patient care interventions can be performed on or through burned skin in a burn patient.
 - g. Analgesia in accordance with TECC guidelines #10 should be administered.

12. Monitoring:

- a. Apply appropriate monitoring devices and/or diagnostic equipment if available. Obtain and record vital signs.

13. Prepare Patient for Movement:

- a. Consider environmental factors for safe and expeditious evacuation.
- b. Secure patient to a movement assist device when available.
- c. If vertical extraction required, ensure patient is secured appropriately.

14. Communicate with the patient if possible.

- a. Encourage, reassure and explain care.

15. Cardiopulmonary Resuscitation:

- a. CPR within this phase of care for victims of blast, penetrating or blunt trauma who have no pulse, no ventilations, and no other signs of life will likely not be successful and should not be attempted.
 - i. Consider bilateral needle decompression for victims of torso or polytrauma with no respirations or pulse to ensure tension pneumothorax is not the cause of cardiac arrest prior to discontinuation of care.
- b. In other circumstances, performing CPR *may be* of benefit and should be considered in the context of the operational situation.

16. Documentation of Care:

- a. Document clinical assessments, treatments rendered, and changes in the patient's status in accordance with local protocol. Forward this information with the patient to the next level of care.



Tactical Emergency Casualty Care (TECC) Guidelines for BLS/ALS Medical Providers

EVACUATION CARE (EVAC)/ COLD ZONE Guidelines*:

2. **Reassess All Interventions** applied in previous phases of care.
 - a. If multi-patient event, perform primary triage per local protocols for priority and destination.

3. **Airway Management:**
 - a. The principles of airway management in Evacuation Care / Cold Zone are the same as that in Indirect Threat Care / Warm Zone with the addition of increased utility of supraglottic devices and definitive airway control with endotracheal intubation.
 - b. Consider applying oxygen if available.
 - c. If intubated and attached to a mechanical ventilator, consider lung protective strategies and reassess for respiratory decline in patients with potential pneumothoraces.
 - d. Consider the mechanism of injury and the need for spinal motion restriction.
 - i. Routine spinal immobilization is not recommended and may be harmful for casualties with penetrating trauma.
 - ii. Maintain high clinical suspicion for casualties over age of 65yo with blunt mechanism.
 - iii. Adequate spinal motion restriction may be maintained by keeping the patient calm, coaching of the patient to limit movement and by positioning in a supine position on a firm surface.
 - iv. Patients may be clinically cleared under a locally approved selective spinal motion restriction protocol if they have NONE of the following:
 - Midline c-spine tenderness
 - Neurologic impairment
 - Altered mental status
 - Distracting injury
 - Intoxication

4. **Respirations/Breathing:**
 - a. All open and/or sucking chest wounds should be treated by immediately applying a vented or non-vented occlusive seal to cover the defect.
 - b. Monitor the patient for the potential development of a subsequent tension pneumothorax. Tension pneumothoraces should be treated as in ITC / Warm Zone.

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- i. Symptoms include, but are not limited to, progressive respiratory distress, hypoxia and/or hypotension in the setting of known torso trauma
- c. Reassess casualties who have had chest seals applied or had needle decompression. If there are signs of continued or progressive respiratory distress:
 - i. Consider repositioning the patient, burping the chest seal or repeating the needle decompression. If this results in improved clinical status, the decompression can be repeated multiple times.
 - ii. Consider placing a chest tube if no improvement of respiratory distress after needle decompression only if appropriate provider scope of practice and approved local protocol for situations with prolonged evacuation delay, long transport time, or air transport.
 - iii. Administration of oxygen may be of benefit for all traumatically injured patients, especially for the following types of casualties:
 - Low oxygen saturation by pulse oximetry
 - Injuries associated with impaired oxygenation
 - ⇒ Unconscious patient
 - ⇒ Patient with traumatic brain injury (maintain oxygen saturation > 90%)
 - ⇒ Patient in shock
 - ⇒ Patient at altitude
 - ⇒ Patient with known/suspected pneumothorax

5. Major Bleeding:

- a. Assess for any unrecognized or untreated bleeding.
 - i. If not already done, use a tourniquet or an appropriate pressure dressing with deep wound packing to control life-threatening external hemorrhage that is anatomically amenable to such treatment.
 - *Tourniquet application:* Apply the tourniquet directly to the skin 2-3 inches above wound (DO NOT APPLY OVER THE JOINT) and tighten as much as possible.
 - *Pressure dressing application:* apply directly to the skin after the wound has been packed with either plain or hemostatic gauze to translate the surface pressure exerted by the bandage to the bleeding vessels deep in the wound.
 - For any traumatic total or partial amputation, a tourniquet should be applied in an appropriate location regardless of bleeding.
 - Expose and clearly mark all tourniquets with time of application.
- b. Re-assess effectiveness and clinical indications for all tourniquets that were applied during previous phases of care.
 - i. Tourniquets that are determined to be both *clinically indicated and effective* in controlling hemorrhage should remain in place if the patient can be evacuated within 2 hours to definitive medical care.
 - ii. If existing tourniquet is *clinically indicated but ineffective* (continued bleeding or a palpable distal pulse), either tighten the existing tourniquet further, or apply a second tourniquet, side-by-side and, if possible, proximal to the first to eliminate the distal pulse.
 - iii. If a tourniquet is determined based on wound assessment *to not be clinically indicated*, use other techniques to control bleeding and remove the tourniquet.

- c. Consider tourniquet relocation, downgrade, or conversion if there will be a delay in evacuation more than 2 hours. On any patient who is receiving fluid resuscitation (including blood products) for hemorrhagic shock, ensure a positive response to resuscitation efforts (e.g. improving mentation and peripheral pulses normal in character) before downgrading/converting a tourniquet. Criteria for tourniquet downgrade/conversion:
- Patient is not in hemorrhagic shock
 - Able to subsequently monitor wound closely
 - TQ is not on an amputated or partially amputated limb
 - No prior unsuccessful attempts to remove the TQ
- i. Downgrade: Expose the wound fully, identify an appropriate location at least 2-3 inches above the injury (not over a joint), and apply a new tourniquet directly to the skin. Once properly applied, the prior tourniquet can be loosened but should be left in place. Assess for bleeding.
- ii. Conversion: Expose the wound fully, fully pack the wound with hemostatic or plain gauze, and properly apply a pressure dressing. Once properly applied, the prior tourniquet can be loosened but should be left in place. Assess for bleeding.
- iii. Tourniquet relocation: Expose the wound fully, identify an appropriate location at least 2-3 inches above the injury (not over a joint), and apply a new tourniquet directly to the skin. Once properly applied, the prior tourniquet can be loosened but should be left in place. Assess for bleeding.
- iv. If a tourniquet downgrade/conversion fails, it should not be attempted multiple times.

6. Tranexamic Acid:

- a. If patient has injuries that could potentially require significant blood transfusion (e.g. presents in hemorrhagic shock in the setting of penetrating torso trauma, multiple amputation(s), and/or evidence of severe uncontrolled internal or external bleeding) consider administration of 1 gram of TXA as soon as possible.
- i. Do **not** administer TXA later than 3 hours after injury.

7. Shock Management / Fluid resuscitation:

- a. Reassess for hemorrhagic shock (altered mental status in the absence of brain injury, weak or absent peripheral pulses, and/or change in pulse character). In this phase, BP monitoring should be available. If so, maintain target systolic BP above 80-90mmHg.
- b. Establish intravenous or intraosseous access if not performed in Indirect Threat Care / Warm Zone phase.
- c. Management of resuscitation as in Indirect Threat Care / Warm Zone with the following additions:
- i. If in hemorrhagic shock and blood products are not available or not approved under scope of practice/local protocols, fluid resuscitate as in ITC/ Warm Zone.
- ii. If in hemorrhagic shock and blood products are available with an appropriate provider scope of practice under an approved medical protocol:
- Resuscitate with plasma and packed red blood cells (PRBCs) in a 1:1 ratio. If blood component therapy is not available, but appropriate training, testing and protocols are in place, consider transfusing fresh whole blood.
 - Continue resuscitation as needed to maintain target BP or clinical

improvement.

- d. In a patient who has altered mental status due to suspected or confirmed traumatic brain injury, avoid any hypotension.
 - i. Resuscitate aggressively with fluid boluses to a goal of improving mental status, strong peripheral pulses or, if monitoring available, maintain measured SBP>90-100 mmHg.
 - ii. Position patient with head elevated 30 degrees if possible.

8. **Prevention of Hypothermia:**

- a. Minimize patient's exposure to the elements. Move into a medic unit, vehicle, or warmed structure if possible. Avoid cutting off or removing clothes unless necessary for wound exposure.
 - i. For public safety casualties, keep protective gear on or with the patient if feasible.
- b. Replace wet clothing with dry if possible.
- c. Place the patient onto an insulated surface as soon as possible to decrease conductive heat loss to the cold ground.
- d. Cover the patient with dry blankets, jackets, poncho liners, sleeping bags, commercial warming devices or anything that will retain heat and keep the patient dry.
- e. Warm fluids are preferred if IV fluids are required.

9. **Monitoring**

- a. Institute electronic monitoring if available, including pulse oximetry, cardiac monitoring, etCO₂ (if intubated), and blood pressure.
- b. Obtain and record vital signs.

10. **Reassess Patient:**

- a. Complete secondary survey checking for additional injuries. Inspect and dress known wounds that were previously deferred.
- b. Determine mode and destination for evacuation to definitive care.
- c. Splint known/suspected fractures and recheck pulses.
- d. Apply pelvic binding techniques or device for suspected unstable pelvic fractures.

11. **Provide Analgesia as Necessary:**

- a. Provide adequate analgesia as necessary for the casualties:
 - i. Have naloxone readily available whenever administering opiates.
 - ii. Monitor for adverse effects such as respiratory depression or hypotension. Consider the effect of opioid-induced altered mental status on subsequent operations and required resources.
 - iii. For mild - moderate pain, consider oral non-narcotic medications.. Avoid the use of non-steroidal anti-inflammatory medications (e.g. aspirin, ibuprofen, naproxen, ketorolac, etc) in the trauma patient as these medications interfere with platelet functioning and may exacerbate bleeding
 - iv. For moderate – severe pain, consider use of narcotic medications (hydrocodone, oxycodone, transmucosal fentanyl citrate, etc.) and/or Ketamine (at analgesic dosages). Sedating medications require increased level of monitoring.
 - v. Consider adjunct administration of anti-emetic medicines

12. Burns:

- a. Burn care and resuscitation is consistent with the principles described in Indirect Threat Care / Warm Zone.
- b. Smoke inhalation, particularly in a confined space, may be associated with significant carbon monoxide and cyanide toxicity.
 - i. Significant symptoms of smoke inhalation and carbon monoxide toxicity should be treated with high flow oxygen if available.
 - ii. Significant symptoms of smoke inhalation and cyanide toxicity should be considered candidates for cyanide antidote administration.
- c. Be cautious of off-gassing from patient in the evacuation vehicle if there is suspected chemical exposure (e.g. cyanide) from the fire.
- d. Consider early airway management if the patient has signs of significant airway thermal injury (e.g. oral edema, hoarseness, stridor, throat pain, carbonaceous material in the posterior pharynx and respiratory difficulty) or if there is a prolonged evacuation period.

13. Traumatic Brain Injury (TBI):

- a. Prevention of hypotension and hypoxia are critical in management of TBI.
- b. TBI patients should have available monitoring equipment applied and should be resuscitated to a minimum SBP > 90-100mmHg.
- c. Raise the head of the bed or stretcher 30 degrees if patient is not in hemorrhagic shock.

14. Prepare Patient for Movement:

- a. Consider environmental factors for safe and expeditious evacuation.
- b. Secure patient to a movement assist device when available.
- c. If vertical extraction required, ensure patient secured appropriately.

15. Communicate with the patient if possible and with the receiving facility.

- a. Encourage, reassure and explain care to patient.
- b. Notify receiving facility of wounds, patient condition, and treatments applied.

16. Cardiopulmonary Resuscitation:

- a. CPR may have a *larger role* during the evacuation phase especially for patients with electrocution, hypothermia, non-traumatic arrest or near drowning.
- b. Consider bilateral needle decompression for victims of torso or polytrauma with no respirations or pulse to ensure tension pneumothorax is not the cause of cardiac arrest prior to discontinuation of care.

17. Documentation of Care:

- a. Continue or initiate documentation of clinical assessments, treatments rendered, and changes in the patient's status in accordance with local protocol.
- b. Forward this information with the patient to the next level of care.



Tactical Emergency Casualty Care (TECC) Guidelines for BLS/ALS Medical Providers

Goals, Principles, and Skill sets

NOTE: TECC Guidelines are medical care recommendations only and should not supercede locally defined or established scopes of practice, training, local medical protocols, or medical director approval.

I. DIRECT THREAT CARE (DTC) / HOT ZONE CARE

Primary Goals:

1. Accomplish the mission with minimal casualties.
2. Prevent any patient from sustaining additional injuries.
3. Keep operational response maximally engaged in addressing the immediate and any existing threats (e.g. fire/smoke, unexploded ordinance, active shooter, impending collapse).
4. Minimize public harm.

Operational Principles:

1. Establish *operational control of the immediate incident* and defer in-depth medical interventions if engaged in *ongoing direct threat mitigation* (e.g. active fire suppression, dynamic explosive scenario, etc).
2. *Threat mitigation* techniques will minimize risk to casualties and the providers. These should include techniques and tools for rapid access to the patient and rapid patient egress.
3. Triage should be deferred to a later phase of care. Prioritization for extraction is based on resources available and the tactical situation.
4. Minimal trauma interventions are warranted in this phase of care.
5. *Consider* hemorrhage control before evacuation to a safer area.
 - a. TQ application is the primary “medical” intervention to be *considered* in this phase of care.

Direct Threat / Hot Zone Skill Set (should be applied per approved SOP/protocol only):

1. Direct pressure and hasty tourniquet application
 - a. Consider PACE Methodology - Primary, Alternative, Contingency, Emergency
 - b. Commercially available tourniquets
 - c. Field expedient tourniquets
2. Methods for rapid and efficient patient extraction
3. Rapid placement in recover position

Goals, Principles, and Skill sets

II. INDIRECT THREAT CARE (ITC) / WARM ZONE CARE

Primary Goals:

1. Goals 1-4 as above with Direct Threat Care / Hot Zone care
2. Stabilize the patient as required to permit safe evacuation to a dedicated treatment sector or medical evacuation assets.

Operational Principles:

1. Maintain *operational control* to stabilize the immediate scenario.
2. Conduct *dedicated patient assessment* and initiate appropriate life-saving interventions as outlined in the Indirect Threat Care / Warm Zone guidelines.
 - a. DO NOT DELAY patient extraction/evacuation for non-life-saving interventions.
3. Consider establishing a *patient/casualty collection point* if multiple patients are encountered or there is a large operational footprint.
4. Unless in a fixed patient collection point, triage in this phase of care should be limited to the following categories:
 - a. Uninjured or minimally injured and capable of ambulation/self-extraction
 - b. Deceased / expectant
 - c. All others
5. Establish *communication* with unified command to inform of need for patient evacuation.
6. Prepare casualties for evacuation and document care rendered for continuity of care purposes.

Indirect Threat / Warm Zone skill set (should be applied per approved protocol/SOP only):

1. Hemorrhage Control:
 - a. Application of direct pressure
 - b. Application of tourniquet
 - i. Commercially available
 - ii. Field expedient
 - c. Application of wound packing with gauze or hemostatic agent
 - d. Application of mechanical or improvised pressure dressing
2. Airway:
 - a. Perform Manual Maneuvers (chin lift, jaw thrust, recovery position)
 - b. Insert Nasal pharyngeal airway
 - c. Placement of supraglottic airway
 - d. Placement of endotracheal tube under direct visualization
 - e. Perform surgical cricothyrotomy
3. Breathing:
 - a. Application of effective occlusive chest seal
 - b. Apply oxygen
 - c. Recognize the symptoms of tension pneumothorax
 - d. Perform needle thoracentesis

- i. Anterior chest location
 - ii. Lateral chest location
- e. Perform manual “burp” of non-vented occlusive dressing
4. Shock Management/Fluid Resuscitation:
 - a. Recognize the symptoms of hemorrhagic shock
 - b. Obtain intravenous and/or intraosseous access
 - c. Resuscitate hemorrhagic shock using the principles of hypotensive resuscitation
5. Hypothermia Prevention:
 - a. Identify patient at risk for hypothermia
 - b. Apply techniques and available materials to control conductive and evaporative heat loss.
6. Wound management:
 - a. Initiate Basic Burn Treatment
7. Traumatic Brain Injury
 - a. Position patient appropriately
 - b. Apply appropriate resuscitative principles for TBI patient
8. Prepare Patient for Evacuation:
 - a. Move Patient (drags, carries, lifts)
 - b. Identify patient at risk and apply commercial/improvised spinal immobilization devices
 - c. Properly secure patient to litter
9. Other Skills:
 - a. Perform Hasty Decontamination
 - b. Initiate Patient Monitoring
 - c. Recognize need for and establish Patient Collection Point

Note: Care provided within the ITC/Warm Zone guidelines is based upon individual first responder training, available equipment, local medical protocols, and medical director approval.

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Goals, Principles, and Skill sets

III. Evacuation Care / Cold Zone

Primary Goals:

1. Maintain any lifesaving interventions conducted during Direct Threat /Hot Zone and Indirect Threat /Warm Zone phases of care.
2. Provide rapid and secure evacuation to an appropriate (level of care) medical receiving facility.
3. Provide good communication and patient care data between field medical providers and fixed medical receiving facility.
4. Avoid additional preventable causes of death.

Operational Principles:

1. Reassess the patient or casualties for efficacy of all applied medical interventions.
2. Utilize a triage system/criteria per local policy that considers priority AND destination to ensure proper distribution of patients.
3. Utilize available additional resources to maximize advanced care.
4. Avoid and/or address developing hypothermia.
5. Communication is critical, especially between different operational disciplines and with medical resources.
6. Maintain situational awareness: in dynamic events, there are NO threat free areas.

Evacuation Care / Cold Zone Skills (should be applied per approved protocol/SOP only):

1. Same as Indirect Threat / Warm Zone Care.
2. Apply triage prioritization and appropriate destination/distribution of patients.
3. Simple spinal immobilization as needed.
4. Familiarization with advanced monitoring equipment and techniques.
5. Implement damage control resuscitation.
6. Apply multimodal pain control principles.
7. Effective communication between non-medical, pre-hospital and hospital medical assets

Note: Care provided within the EVAC/Cold Zone guidelines is based upon individual first responder training, available equipment, local medical protocols, and medical director approval.