



Tactical Emergency Casualty Care (TECC) Guidelines for First Responders with a Duty to Act*



*This includes law enforcement and firefighters not trained as EMS clinicians.

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PREAMBLE

In environments with real or perceived threat(s), traditional response paradigms that prioritize scene safety before patient care may result in treatment delays that negatively affect patient and rescuer outcomes.

To address this gap, the Tactical Emergency Casualty Care (TECC) guidelines describe patient care standards for persons of all age groups in an all-hazards, high-threat environment.

The TECC construct consists of three dynamic phases of care:

1. Direct Threat
2. Indirect Threat
3. Evacuation

These phases are intended to correlate directly with the contemporaneous threat level and are not solely geographic in nature.

Paramount considerations to reduce mortality and morbidity throughout all phases of TECC are:

- Immediate access to the injured
- Rapid life-saving interventions at or near the point of injury
- Early extraction of those needing transport to definitive medical care

In addition to treating physical injuries, key principles for addressing the mental health needs of patients, survivors, and responders include:

- Limiting exposure of personnel to the incident
- Providing appropriate early psychological support

The TECC system of care is applied during incidents where operational threats (e.g., active violence, hazardous material, fire, structural instability, etc.) shape the medical response. This system of care is based upon principles, not protocols. While the TECC principles are universal, application of the principles is agency, provider, practitioner, and resource specific.

The TECC guidelines are agnostic to specific commercial products, scope of practice dependent, and require a systems approach that accounts for the totality of the event, including available resources and clinical capabilities. The Committee for Tactical Emergency Casualty Care does not endorse specific training programs or instructors but encourages all end users to appropriately employ these guidelines.

The Committee for Tactical Emergency Casualty Care was originally convened to speed the transition of military medical lessons learned from the battlefield to evidenced- and best-practiced based operational medical guidance for medical response and treatment of the injured during high risk and atypical civilian operational scenarios.

The Tactical Emergency Casualty Care (TECC) guidelines are a set of best practice recommendations for casualty management during civilian tactical and rescue operations. Based upon the principles of Tactical Combat Casualty Care (TCCC), TECC accounts for the differences in the civilian environment, resources, patient population, and scope of practice from the military combat environment of TCCC.



TECC Guidelines for the First Responders with a Duty to Act

Direct Threat Care (DTC)/Hot Zone	
<i>Care provided within the TECC guidelines is inherent upon individual first responder training, available equipment, local medical protocols, and medical director approval.</i>	
Primary Goals:	<ul style="list-style-type: none">• Accomplish the mission with minimal additional casualties.• Prevent any casualty from sustaining additional injuries.• Keep operational response maximally engaged in addressing/neutralizing the immediate and any existing threat (e.g., fire/smoke, unexploded ordinance, active shooter, impending collapse).• Minimize public harm.
Operational Principles:	<ul style="list-style-type: none">• Establish <i>tactical supremacy</i> and defer in-depth medical interventions if engaged in <i>ongoing direct threat mitigation</i>.• <i>Threat mitigation</i> 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.• Triage should be deferred to a later phase of care. Prioritization for extraction is based on resources available and the tactical situation.• Minimal trauma interventions are warranted during this phase.• <i>Consider</i> bleeding control.<ul style="list-style-type: none">○ Tourniquet application is the primary medical intervention to be considered in this phase of care.○ For response personnel, tourniquet should be readily available and accessible with either hand.
Required Skill Set (applied per approved SOP/protocol only):	<ul style="list-style-type: none">• Direct pressure and hasty tourniquet application.<ul style="list-style-type: none">○ PACE methodology.○ Commercially available tourniquets.• Tactical casualty extraction.• Rapid placement in recovery position.

I. Direct Threat Care (DTC)/Hot Zone Guidelines

- A. Mitigate any threat and move to a safer position (e.g., return gunfire, use less-lethal technology, fire suppression if a direct threat to life, assume an overwhelming force posture). Recognize that threats are dynamic and require continuous threat assessments.
- B. Direct the injured law enforcement/first responder to stay engaged in the operation if able and appropriate.
- C. Move casualty to a safer position:
 1. Instruct the alert, capable casualty to move to a safer position and apply self-aid.
 2. If the casualty is responsive but cannot move, a rescue plan should be devised.
 3. If a casualty is unresponsive, weigh the risks and benefits of an immediate rescue attempt in terms of available personnel and likelihood of success. Remote medical assessment techniques to assess survivability should be considered.
- D. Stop life-threatening external hemorrhage if present and reasonable depending on the immediate threat and the extraction distance to safety.
- E. Consider moving to safety prior to application of the tourniquet if the situation warrants.



TECC Guidelines for First Responders with a Duty to Act

1. Apply direct pressure to wound or direct a capable patient to apply direct pressure to his/her own wound.
 2. Apply a tourniquet or direct a capable patient to apply his/her own tourniquet:
 - a) Apply the tourniquet as high on the limb as possible, including over the clothing if present.
 - b) Tighten until cessation of bleeding and move to safety.
 - c) Consider the PACE (Primary, Alternate, Contingency, Emergency) methodology in executing tourniquet placement. The PACE methodology, often used by military and defense organizations, can be used by responders to develop multiple contingencies for tourniquet placement if one plan fails to stop bleeding or stops working during treatment.
- F. Consider quickly placing unresponsive casualty in recovery position to protect airway.



Indirect Threat Care (ITC)/Warm Zone	
<i>Care provided within the TECC guidelines is inherent upon individual first responder training, available equipment, local medical protocols, and medical director approval.</i>	
Primary Goals:	<ul style="list-style-type: none"> • DTC/Hot Zone care primary goals also applicable here. • Stabilize the casualty as required to permit safe extraction to dedicated treatment area or medical evacuation assets.
Operational Principles:	<ul style="list-style-type: none"> • Maintain <i>tactical supremacy</i> and complete the overall mission. • As applicable, ensure safety of both first responders and casualties by rendering weapons safe and/or rendering any adjunct tactical gear safe for handling (i.e., flash bangs, gas canisters). • Conduct dedicated patient assessment and initiate appropriate life-saving interventions as outlined in the ITC/Warm Zone guidelines. DO NOT DELAY casualty extraction/evacuation for non-lifesaving interventions. • Consider establishing a casualty collection point (CCP) if multiple casualties are encountered. • Unless in a fixed casualty collection point, triage in this phase of care should be limited to the following categories: <ul style="list-style-type: none"> ○ Uninjured and/or capable of ambulation or self-extraction, ○ Deceased or when death is imminent, and ○ All others. • Establish communication with the tactical and/or unified command and request or verify initiation of casualty extraction/evacuation. • Prepare casualties for extraction and document care rendered for continuity of care purposes.
Required Skill Set (applied per approved SOP/protocol only):	<ul style="list-style-type: none"> • Hemorrhage Control: <ul style="list-style-type: none"> ○ Application of direct pressure ○ Application of tourniquet <ul style="list-style-type: none"> ▪ PACE methodology. ▪ Commercially available tourniquets. ▪ Field expedient tourniquets. ▪ Junctional tourniquets. ○ Perform wound packing with gauze or hemostatic agent. ○ Application of pressure dressing. • Airway: <ul style="list-style-type: none"> ○ Perform manual maneuvers (chin lift, jaw thrust, recovery position). ○ Insert nasal pharyngeal airway. • Breathing: <ul style="list-style-type: none"> ○ Application of effective nonocclusive (vented) seal to cover the defect. If none is available, leave the wound open. ○ Apply oxygen if available. ○ Recognize the symptoms of tension pneumothorax. ○ Perform manual burp of vented seal. • Circulation: Recognize the symptoms of hemorrhagic shock. • Hypothermia prevention: Apply available materials to prevent heat loss. • Wound management: Initiate basic burn treatment. • Casualty evacuation: <ul style="list-style-type: none"> ○ Move casualty (drags, carries, lifts). ○ Secure casualty to litter. • Other Skills: <ul style="list-style-type: none"> ○ Monitor casualty. ○ Recognize need and requirements for establishing a Casualty Collection Point.



II. Indirect Threat Care (DTC)/Warm Zone Guidelines

- A. Any casualty with a weapon should have that weapon made safe and secured once the threat is neutralized and/or if mental status is altered.
- B. Perform systematic assessment and intervention. Mnemonics such as MARCH or X-ABCDE to guide priorities may be of assistance.¹
- C. Massive Hemorrhage (Bleeding):
 1. Assess for and control any uncontrolled/unrecognized major bleeding.
 2. Extremity hemorrhage:
 - a) Use a tourniquet or an appropriate pressure dressing with deep wound packing (per the manufacturer's directions) to control life-threatening bleeding in an extremity.
 - b) Apply the tourniquet over the clothing as proximal as possible from the injury site and tighten as much as possible; if the situation allows, fully expose and evaluate the extent of the wound before applying tourniquet directly to the skin, 2-3 inches above the most proximal wound. (Do not apply over the joint!)
 - c) For any traumatic total or partial amputation, a tourniquet should be applied in an appropriate location regardless of bleeding.
 - d) A pressure dressing with deep wound packing (either plain gauze or, if available, hemostatic dressing) is an acceptable alternative for moderate to severe hemorrhage. Other available materials can be used for wound packing if gauze or a hemostatic agent is not available. Then, properly apply the pressure dressing directly over the wound to generate constant direct pressure.
 3. Junctional hemorrhage:
 - a) Use direct pressure and an appropriate pressure dressing with deep wound packing (plain gauze or, if available, hemostatic gauze) as per the manufacturer's directions.
 - b) If available, immediately apply a junctional tourniquet device for anatomic junctional areas where bleeding cannot easily be controlled by tourniquet, direct pressure and/or hemostatics/dressings.
 4. Reassess all tourniquets that were hastily applied during DTC/Hot Zone Care and evaluate the wound for continued bleeding or a distal pulse in the extremity. If there is continued bleeding or a distal pulse is still present:
 - a) Tighten the existing tourniquet further, or
 - b) Apply a second tourniquet, side-by-side and, if possible, proximal to the first, tighten until cessation of bleeding.
 5. If possible, mark all tourniquet sites with the time of tourniquet application.

¹ MARCH (massive hemorrhage, airway, respirations, circulation, head injury/hypothermia) is an acronym used by TECC-trained individuals to help remember the proper order of treatment. X-ABCDE is another acronym that may be used and stands for exsanguination, airway, breathing, circulation, disability, exposure/environment.



D. Airway Management:

1. If the casualty is unconscious or is conscious but unable to follow commands:
 - a) Clear mouth of any foreign bodies (e.g., vomit, food, teeth, gum.).
 - b) Apply basic chin lift or jaw thrust maneuver to open airway.
 - c) Consider placing a nasopharyngeal airway.
 - d) Place casualty in the recovery position to maintain the open airway.
2. If the casualty is conscious and able to follow commands, allow casualty to assume position of comfort, including sitting up. Do not force to lie down.

E. Respiration (Breathing):

1. Immediately apply a non-occlusive (vented) seal to cover the defect from any open and/or sucking torso wounds.
2. Monitor any casualty with penetrating torso trauma for the potential development of a tension pneumothorax. Most common presentation will be penetrating chest injury with subsequent increasing shortness of breath, difficulty breathing and/or increasing anxiety/agitation, often after the application of a chest seal.
 - a) If tension pneumothorax appears to be developing, remove the occlusive dressing and burp the wound by applying gentle pressure around the wound to allow any air to escape.
 - b) Casualties with concern for developing tension pneumothorax should be prioritized to a higher level of care.

F. Circulation (Shock Management/Resuscitation):

1. Assess for hemorrhagic shock: Altered mental status (in the absence of head injury) and weak or absent radial pulses are the best austere field indicators of shock.
2. If in shock, prioritize for rapid evacuation to a higher level of care for any patient, especially those with penetrating torso injury, displaying signs of shock.
3. If not in shock, casualty may drink clear liquids if conscious, can swallow, and there is a confirmed delay in evacuation to care.

G. Hypothermia Prevention:

1. Minimize casualty's exposure and subsequent heat loss.
 - a) Place the casualty onto an insulated surface to reduce conductive heat loss as soon as possible.
 - b) For injured public safety personnel, keep equipment on or with casualty if feasible.
2. Keep casualty covered, warm, and dry.
 - a) Replace wet clothing with dry if possible.
 - b) Cover casualty with commercial warming device, blankets, jackets, or anything that will retain heat and keep the casualty dry.

H. Reassess Casualty:

1. Perform a rapid blood sweep, front and back, checking for additional injuries.



TECC Guidelines for First Responders with a Duty to Act

2. Expose the wound for further evaluation. Balance this with the goal of preventing heat loss.

I. Burns:

1. Stop the burning process.
2. Cover burns with loose dry dressings if available.
3. Large area burns and signs of significant airway burns or smoke inhalation (e.g., singed facial hair, soot/burns/swelling around the nose or mouth) should be prioritized to a higher level of care.
4. Burn patients are more susceptible to hypothermia – minimize heat loss as above.

J. Analgesia (Pain Relief):

1. If possible, provide analgesia as necessary for the patient. Adequate pain control can reduce physiologic stress, may decrease post-traumatic stress, and may help to prevent chronic pain syndromes.
 - a) Decreasing/limiting movement of a wounded extremity may be effective as the initial intervention.
 - b) If prolonged evacuation, consider oral acetaminophen if the patient is not vomiting and can swallow.
2. Avoid the use of traditional non-steroidal anti-inflammatory medications (e.g., aspirin, ibuprofen, naproxen) as these medications interfere with platelet functioning and may exacerbate bleeding. Celecoxib, a selective Cox-2 inhibitor, has no effect on platelets and may be considered as a non-sedating oral analgesic.

K. Prepare Casualty for Movement:

1. Consider operational and environmental factors for safe and expeditious evacuation.
2. Secure casualty to a movement-assist device when available.
3. If vertical extraction required, ensure casualty is secured appropriately.

L. Communicate with the casualty if possible. Encourage, reassure, and explain care.

M. Cardiopulmonary Resuscitation:

1. CPR within this phase of care for victims of blast or penetrating trauma who have no pulse, no ventilations, and no other signs of life will likely not be successful and should not be attempted.
2. In other circumstances, performing CPR may be of benefit and may be considered in the context of the operational situation.

N. Documentation of Care:

Communication of assessments and treatments rendered should be passed along to the next level of care, ideally on a simple standardized medical treatment care card.



Evacuation Care (EC)/Cold Zone	
<i>Care provided within the TECC guidelines is inherent upon individual first responder training, available equipment, local medical protocols, and medical director approval.</i>	
Primary Goals:	<ul style="list-style-type: none">• Maintain any lifesaving interventions conducted during DTC/Hot Zone and ITC/Warm Zone phases of care.• Provide rapid and secure evacuation to an appropriate (level of care) medical receiving facility.• Provide good communication and patient care data between field medical providers and fixed medical receiving facility.• Avoid additional preventable causes of death.
Operational Principles:	<ul style="list-style-type: none">• Reassess the casualty or casualties for efficacy of all applied medical interventions.• Use a triage system/criteria per local policy that considers priority AND destination to ensure proper distribution of patients.• Use additional available resources to maximize advanced care.• Avoid hypothermia and/or address developing hypothermia.• Communication is critical, especially between tactical elements and non-tactical EMS teams.• Maintain situational awareness; in dynamic events, there are NO threat-free areas.
Required Skill Set (applied per approved SOP/protocol only):	<ul style="list-style-type: none">• Same as ITC/Warm Zone Care.• Apply triage prioritization of casualties.• Communicate effectively between non-medical, pre-hospital and hospital medical assets.

III. Evacuation Care (EVAC)/Cold Zone Guidelines

- A. Reassess all interventions applied in previous phases of care.
- B. If multiple wounded, perform primary triage for priority and destination of evacuation to a higher level of care.
- C. Reassess for Massive Hemorrhage (Bleeding):
 1. Fully expose wounds to reassess for and control any unrecognized major bleeding.
 2. Use the appropriate hemorrhage control technique (i.e., tourniquet, pressure dressing, hemostatic wound packing, or junctional device as described in ITC phase).
- D. Reassess Airway:
 1. The principles of airway management are the same as those in ITC/Warm Zone.
 2. If the casualty is unconscious or is conscious but unable to follow commands:
 - a) Clear mouth of any foreign bodies (vomit, food, teeth, gum, etc.).
 - b) Apply basic chin lift or jaw thrust maneuver to open airway.
 - c) Consider placing a nasopharyngeal airway.
 - d) Place casualty in the recovery position to maintain the open airway.



TECC Guidelines for First Responders with a Duty to Act

3. If the casualty is conscious and able to follow commands, allow the patient to assume any position of comfort, including sitting up and leaning forward. Do not force to lie down.
- E. Reassess Respirations (Breathing):
1. All open and/or sucking chest wounds should be treated by immediately applying a non-occlusive (vented) seal to cover the defect. Monitor the casualty for the development of a subsequent tension pneumothorax.
 2. Reassess casualties who have had chest seals applied. Any developing tension pneumothorax should be treated as in ITC/Warm Zone.
 3. If available, administration of oxygen may be of benefit for all traumatically injured patients, especially for the following types of casualties:
 - a) Chest injuries.
 - b) Torso injuries associated with shortness of breath.
 - c) Unconscious or altered mental status.
 - d) Post-blast injuries.
 - e) Casualty in shock.
 - f) Casualty at altitude.
- F. Reassess Circulation/Bleeding (Shock Management/Resuscitation):
1. Reassess for hemorrhagic shock. Altered mental status (in the absence of head injury) and weak or absent peripheral pulses are the best field indicators of shock. Use additional medical assessment and monitoring equipment that may be available in this phase.
 2. If not in shock:
 - a) No further intervention required. Allow casualty to assume position of comfort.
 - b) Casualty may drink clear liquids if conscious, can swallow, and there is a confirmed delay in evacuation to care.
 - c) If mental status is altered due to suspected Traumatic Brain Injury (TBI) and the casualty is not in shock, position the casualty with the head raised to 30 degrees.
 3. If in shock:
 - a) Prioritize for rapid evacuation any penetrating torso injury patient displaying signs of shock.
- G. Hypothermia Prevention:
1. Minimize casualty's exposure and subsequent heat loss as per ITC guidelines.
 2. Keep protective gear on or with law enforcement casualty if feasible.
 3. Move into a vehicle or warmed structure if possible.
- H. Reassess Casualty:
1. Complete full front and back re-assessment checking for additional injuries. Inspect and dress known wounds that were previously deferred.



TECC Guidelines for First Responders with a Duty to Act

2. Frequently re-check the casualty for any changes in condition. Worsening status at any point should prompt priority evacuation.
 3. Consider alternative methods of transportation to definitive medical care if traditional methods delayed or unavailable. Ensure coordination of patient distribution to avoid overwhelming any one medical receiving facility.
- I. Burns:
1. Cover burns with loose dry dressings if available. Clean, dry sheets are effective for casualties with large area burns.
 2. Large area burns and signs of significant airway burns or smoke inhalation (e.g., singed facial hair, soot/burns/swelling around the nose or mouth) should be prioritized for rapid evacuation.
 3. Burn patients are more susceptible to hypothermia – minimize heat loss as above.
- J. Analgesia
1. Provide analgesia as necessary for the patient. Adequate pain control can reduce physiologic stress, may decrease post-traumatic stress, and may help to prevent chronic pain syndromes.
 2. Non-pharmacologic interventions such ice, elevation, and immobilization may be effective as the initial intervention.
 3. Consider oral non-opioid medications if the patient is not vomiting and can swallow. Acetaminophen can provide effective pain control.
 4. Avoid the use of traditional non-steroidal anti-inflammatory medications (e.g., aspirin, ibuprofen, naproxen) as these medications interfere with platelet functioning and may exacerbate bleeding. Celecoxib, a selective Cox-2 inhibitor, has no effect on platelets and may be considered as a non-sedating oral analgesic.
- K. Prepare Casualty for Movement:
1. Consider environmental factors for safe and expeditious evacuation.
 2. Secure casualty to a movement-assist device when available.
 3. If vertical extraction required, ensure casualty secured appropriately.
 4. Consider alternative evacuation platforms such as law enforcement vehicles. Ensure proper communication with EMS and first receiving facilities.
- L. Communicate with the casualty if possible, and with the operational medical provider or medical facility assuming care of the casualty.
1. Encourage, reassure, and explain care and expectations to patient, family and/or caregivers.
 2. Notify receiving provider or facility of wounds, patient condition, and treatments applied.
- M. Cardiopulmonary Resuscitation:
1. CPR may have a larger role during the evacuation phase especially for patients with electrocution, hypothermia, non-traumatic arrest, or near drowning.
 2. CPR may be considered if evacuation time is less than five minutes from point of



TECC Guidelines for First Responders with a Duty to Act

injury to first receiving facility.

N. Documentation of Care:

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