Tactical Combat Casualty Care (TCCC) Guidelines

01 May 2026

RED text indicates new text in this year's update to the TCCC Guidelines; **BLUE text** indicates text that did not change but was relocated within the guidelines. Recent changes include airway management and traumatic brain injury management in tactical field care.

Basic Management Plan for Care Under Fire/Threat

1. Return fire and take cover.

2. Direct or expect casualty to remain engaged as a combatant if appropriate.

3. Direct casualty to move to cover and apply self-aid if able or when tactically feasible, move or drag casualty to cover.

4. Try to keep the casualty from sustaining additional wounds.

5. Casualties should be extracted from burning vehicles or buildings and moved to places of relative safety. Do what is necessary to stop the burning process.

6. Stop life-threatening external hemorrhage if tactically feasible:
    a. Direct casualty to control hemorrhage by self-aid if able.
    b. Use a CoTCCC-recommended limb tourniquet for hemorrhage that is anatomically amenable to tourniquet use.
    c. Apply the limb tourniquet over the uniform clearly proximal to the bleeding site(s). If the site of the life-threatening bleeding is not readily apparent, place the tourniquet "high and tight" (as proximal as possible) on the injured limb and move the casualty to cover.

7. Airway management is generally best deferred until the Tactical Field Care phase.

Basic Management Plan for Tactical Field Care

1. **Establish a security perimeter in accordance with unit tactical standard operating procedures and/or battle drills. Maintain tactical situational awareness.**

2. **Triage casualties as required. See Triage Recommendations in Supplement A – Triage in TCCC.**

3. **Massive Hemorrhage**

    a. Assess for unrecognized hemorrhage and control all sources of bleeding. If not already done, use a CoTCCC-recommended limb tourniquet to control life-threatening external hemorrhage that is anatomically amenable to tourniquet use or for any traumatic amputation. Apply directly to the skin 2-3 inches above the bleeding site. If bleeding is not controlled with the first tourniquet, apply a second tourniquet side-by-side with the first.

    b. For compressible (external) hemorrhage not amenable to limb tourniquet use or as an adjunct to tourniquet removal, use Combat Gauze as the CoTCCC hemostatic dressing of choice.

        1. Alternative hemostatic adjuncts:
            - Celox Gauze or
            - ChitoGauze or
            - XStat (best for deep, narrow-tract junctional wounds)
            - iTClamp (may be used alone or in conjunction with hemostatic dressing or XStat)

        - Hemostatic dressings should be applied with at least 3 minutes of direct pressure (optional for XStat). Each dressing works differently, so if one fails to control bleeding, it may be removed and a fresh dressing of the same type or a different type applied. (Note: XStat is not to be removed in the field, but additional XStat, other hemostatic adjuncts, or trauma dressings may be applied over it.)
        - If the bleeding site is amenable to use of a junctional tourniquet, immediately apply a junctional tourniquet. Do not delay in the application of the junctional tourniquet once it is ready for use. Apply hemostatic dressings with direct pressure if a junctional tourniquet is not available or while the junctional tourniquet is being readied for use.

    c. For external hemorrhage of the head and neck where the wound edges can be easily re-approximated, the iTClamp may be used as a primary option for hemorrhage control. Wounds should be packed with a hemostatic dressing or XStat, if appropriate, prior to iTClamp application.

        1. The iTClamp does not require additional direct pressure, either when used alone or in combination with other hemostatic adjuncts.
        2. If the iTClamp is applied to the neck, perform frequent airway monitoring and evaluate for an expanding hematoma that may compromise the airway.

Consider placing a definitive airway if there is evidence of an expanding hematoma.

3. DO NOT APPLY on or near the eye or eyelid (within 1cm of the orbit).

d. Perform initial assessment for hemorrhagic shock (altered mental status in the absence of brain injury and/or weak or absent radial pulse) and consider immediate initiation of shock resuscitation efforts.

4. Airway Management

a. Assess for unobstructed airway.
b. If there is a traumatic airway obstruction or impending traumatic obstruction, prepare for possible direct airway intervention.
c. Allow a conscious casualty to assume any position that best protects the airway, to include sitting up and/or leaning forward.
d. Place unconscious casualty in the recovery position, head tilted back; chin away from chest.
e. Use suction if available and appropriate.
f. If the previous measures are unsuccessful, and the casualty's airway obstruction (e.g. facial fractures, direct airway injury, blood, deformation or burns) is unmanageable, perform a surgical cricothyroidotomy using one of the following:
    1. Bougie-aided open surgical technique using a flanged and cuffed airway cannula of less than 10 mm outer diameter, 6-7 mm internal diameter, and 5-8 cm of intratracheal length.
    2. Standard open surgical technique using a flanged and cuffed airway cannula of less than 10mm outer diameter, 6-7 mm internal diameter, and 5-8 cm of intra-tracheal length.
    3. Verify placement with continuous EtCO2 capnography.
    4. Use lidocaine if the casualty is conscious.
g. Frequently reassess SpO2, EtCO2, and airway patency as airway status may change over time.
h. Cervical spine stabilization is not necessary for casualties who have sustained only penetrating trauma.

5. Respiration/Breathing

a. Assess for tension pneumothorax and treat, as necessary.
    1. Suspect a tension pneumothorax and treat when a casualty has significant torso trauma or primary blast injury and one or more of the following:
        1. Severe or progressive respiratory distress
        2. Severe or progressive tachypnea
        3. Absent or markedly decreased breath sounds on one side of the chest
        4. Hemoglobin oxygen saturation < 90% on pulse oximetry
        5. Shock
        6. Traumatic cardiac arrest without obviously fatal wounds

- ❖ If not treated promptly, tension pneumothorax may progress from respiratory distress to shock and traumatic cardiac arrest.

2. Initial treatment of suspected tension pneumothorax:
    1. If the casualty has a chest seal in place, burp or remove the chest seal.
    2. Establish pulse oximetry monitoring.
    3. Place the casualty in the supine or recovery position unless he or she is conscious and needs to sit up to help keep the airway clear as a result of maxillofacial trauma.
    4. Decompress the chest on the side of the injury with a 14-gauge or a 10-gauge, 3.25-inch needle/catheter unit.
        - Either the 5th intercostal space (ICS) in the anterior axillary line (AAL) or the 2nd ICS in the mid-clavicular line (MCL) may be used for needle decompression (NDC). If the anterior (MCL) site is used, do not insert the needle medial to the nipple line.
        - The needle/catheter unit should be inserted at an angle perpendicular to the chest wall and just over the top of the lower rib at the insertion site. Insert the needle/catheter unit all the way to the hub and hold it in place for 5-10 seconds to allow decompression to occur.
        - After the NDC has been performed, remove the needle and leave the catheter in place.
    5. If a casualty has significant torso trauma or primary blast injury and is in traumatic cardiac arrest (no pulse, no respirations, no response to painful stimuli, no other signs of life), decompress both sides of the chest before discontinuing treatment.

3. The NDC should be considered successful if:
    1. Respiratory distress improves, or
    2. There is an obvious hissing sound as air escapes from the chest when NDC is performed (this may be difficult to appreciate in high-noise environments), or
    3. Hemoglobin oxygen saturation increases to 90% or greater (note that this may take several minutes and may not happen at altitude), or
    4. A casualty with no vital signs has return of consciousness and/or radial pulse.
4. If the initial NDC fails to improve the casualty's signs/symptoms from the suspected tension pneumothorax:
    1. Perform a second NDC on the same side of the chest at whichever of the two recommended sites was not previously used. Use a new needle/catheter unit for the second attempt.
    2. Consider, based on the mechanism of injury and physical findings whether decompression of the opposite side of the chest may be needed.
    3. Continue to re-assess!
5. If the initial NDC was successful, but symptoms later recur:

1. Perform another NDC at the same site that was used previously. Use a new needle/catheter unit for the repeat NDC
2. Continue to re-assess!

6. If the second NDC is also not successful: continue on to the Circulation section of the TCCC Guidelines.

b. All open and/or sucking chest wounds should be treated by immediately applying a vented chest seal to cover the defect. If a vented chest seal is not available, use a non-vented chest seal. Monitor the casualty for the potential development of a subsequent tension pneumothorax. If the casualty develops increasing hypoxia, respiratory distress, or hypotension and a tension pneumothorax is suspected, treat by burping or removing the dressing or by needle decompression.
c. Initiate pulse oximetry. All individuals with moderate/severe TBI should be monitored with pulse oximetry. Readings may be misleading in the settings of shock or marked hypothermia.
d. Casualties with moderate/severe TBI should be given supplemental oxygen when available to maintain an oxygen saturation ≥ 92 %.
e. If the casualty has impaired ventilation and uncorrectable hypoxia with decreasing oxygen saturation below 90% (or below 92% with moderate/severe TBI), consider insertion of a properly sized Nasopharyngeal Airway, and ventilate using a 1000ml resuscitator Bag-Valve-Mask.
f. Use continuous EtCO2 and SpO2 monitoring to help assess airway patency.

6. Circulation

a. Bleeding
    1. A pelvic binder should be applied for cases of suspected pelvic fracture:
        1. Severe blunt force or blast injury with one or more of the following indications:
            - Pelvic pain
            - Any major lower limb amputation or near amputation
            - Physical exam findings suggestive of a pelvic fracture
            - Unconsciousness
            - Shock
    2. Reassess prior tourniquet application. Expose the wound and determine if a tourniquet is needed. If it is needed, reposition any limb tourniquet placed over the uniform by applying a second one directly to the skin 2-3 inches above the bleeding site, then loosening the first tourniquet. Ensure that bleeding is stopped. If there is no traumatic amputation, a distal pulse should be checked. If bleeding persists or a distal pulse is still present, consider additional tightening of the tourniquet or the use of a second tourniquet side-by-side with the first to eliminate both bleeding and the distal pulse. If the reassessment determines that the prior tourniquet was not needed, then remove the tourniquet and note time of removal on the TCCC Casualty Card.

3. Limb tourniquets and junctional tourniquets should be converted to hemostatic or pressure dressings as soon as possible if three criteria are met: the casualty is not in shock; it is possible to monitor the wound closely for bleeding; and the tourniquet is not being used to control bleeding from an amputated extremity. Every effort should be made to convert tourniquets in less than 2 hours if bleeding can be controlled with other means. Do not remove a tourniquet that has been in place more than 6 hours unless close monitoring and lab capability are available.

   NOTE: TCCC ASM/CLS trained personnel, should not attempt tourniquet conversion beyond 2 hours post-application unless directed by TCCC CMC/CPP personnel or other advanced medical personnel. In the absence of medical oversight, maintain the tourniquet in place and continue monitoring until the casualty reaches a higher level of care.

4. Expose and clearly mark all tourniquets with the time of tourniquet application. Note tourniquets applied and time of application; time of re-application; time of conversion; and time of removal on the TCCC Casualty Card. Use a permanent marker to mark on the tourniquet and the casualty card.

b. Assess for hemorrhagic shock (altered mental status in the absence of brain injury and/or weak or absent radial pulse).

c. IV/IO Access
   1. Intravenous (IV) or intraosseous (IO) access is indicated if the casualty is in hemorrhagic shock or at significant risk of shock (and may therefore need fluid resuscitation), or if the casualty needs medications, but cannot take them by mouth.
      1. An 18-gauge IV or saline lock is preferred.
      2. If vascular access is needed but not quickly obtainable via the IV route, use the IO route.

d. Tranexamic Acid (TXA)
   1. If a casualty will likely need a blood transfusion (for example: presents with hemorrhagic shock, one or more major amputations, penetrating torso trauma, or evidence of severe bleeding)

      OR
   2. If the casualty has signs or symptoms of significant TBI or has altered mental status associated with blast injury or blunt trauma:
      1. Administer 2 gm of tranexamic acid via slow IV or IO push as soon as possible but NOT later than 3 hours after injury.

e. Fluid Resuscitation
   1. Assess for hemorrhagic shock (altered mental status in the absence of brain injury and/or weak or absent radial pulse).

2. The resuscitation fluids of choice for casualties in hemorrhagic shock, listed from most to least preferred, are:
   (1) Cold stored low titer O whole blood
   (2) Pre-screened low titer O fresh whole blood
   (3) Plasma, red blood cells (RBCs) and platelets in a 1:1:1 ratio
   (4) Plasma and RBCs in a 1:1 ratio
   (5) Plasma or RBCs alone

   ❖ NOTE: Hypothermia prevention measures [Section 7] should be initiated while fluid resuscitation is being accomplished.

3. If not in shock:
   1. No IV fluids are immediately necessary.
   2. Fluids by mouth are permissible if the casualty is conscious and can swallow.

4. If in shock and blood products are available under an approved command or theater blood product administration protocol:
   1. Resuscitate with cold stored low titer O whole blood, or, if not available
   2. Pre-screened low titer O fresh whole blood, or, if not available
   3. Plasma, RBCs, and platelets in a 1:1:1 ratio, or, if not available
   4. Plasma and RBCs in a 1:1 ratio, or, if not available
   5. Reconstituted dried plasma, liquid plasma or thawed plasma alone or RBCs alone
   6. Reassess the casualty after each unit. Continue resuscitation until a palpable radial pulse, improved mental status or systolic BP of 100 mmHg is present.
   7. Discontinue fluid administration when one or more of the above end points has been achieved.
   8. If blood products are transfused, administer one gram of calcium (30 ml of 10% calcium gluconate or 10 ml of 10% calcium chloride) IV/IO after the first transfused product.

5. Given increased risk for a potentially lethal hemolytic reaction, transfusion of unscreened group O fresh whole blood or type specific fresh whole blood should only be performed under appropriate medical direction by trained personnel.
6. Transfusion should occur as soon as possible after life-threatening hemorrhage in order to keep the casualty alive. If Rh negative blood products are not immediately available, Rh positive blood products should be used in hemorrhagic shock.
7. If a casualty with an altered mental status due to suspected TBI has a weak or absent radial pulse, resuscitate as necessary to restore and maintain a normal radial pulse. If BP monitoring is available, maintain a target systolic BP greater than 100 mmHg.

8. Reassess the casualty frequently to check for recurrence of shock. If shock recurs, re-check all external hemorrhage control measures to ensure that they are still effective and repeat the fluid resuscitation as outlined above.

f. Refractory Shock
    1. If a casualty in shock is not responding to fluid resuscitation, consider untreated tension pneumothorax as a possible cause of refractory shock. Thoracic trauma, persistent respiratory distress, absent breath sounds, and hemoglobin oxygen saturation < 90% support this diagnosis. Treat as indicated with repeated NDC or finger thoracostomy/chest tube insertion at the 5th ICS in the AAL, according to the skills, experience, and authorizations of the treating medical provider. Note that if finger thoracostomy is used, it may not remain patent and finger decompression through the incision may have to be repeated. Consider decompressing the opposite side of the chest if indicated based on the mechanism of injury and physical findings.

7. Hypothermia Prevention

a. Take early and aggressive steps to prevent further body heat loss and add external heat, when possible, for both trauma and severely burned casualties.
b. Minimize casualty's exposure to cold ground, wind and air temperatures. Place insulation material between the casualty and any cold surface as soon as possible. Keep protective gear on or with the casualty if feasible.
c. Replace wet clothing with dry clothing, if possible, and protect from further heat loss.
d. Place an active heating blanket on the casualty's anterior torso and under the arms in the axillae (to prevent burns, do not place any active heating source directly on the skin or wrap around the torso).
e. Enclose the casualty with the exterior impermeable enclosure bag.
f. As soon as possible, upgrade hypothermia enclosure system to a well-insulated enclosure system using a hooded sleeping bag or other readily available insulation inside the enclosure bag/external vapor barrier shell.
g. Pre-stage an insulated hypothermia enclosure system with external active heating for transition from the non-insulated hypothermia enclosure systems; seek to improve upon existing enclosure system when possible.
h. Use a battery-powered warming device to deliver IV/IO resuscitation fluids, in accordance with current CoTCCC guidelines, at flow rate up to 150 ml/min with a 38°C output temperature.
i. Protect the casualty from exposure to wind and precipitation on any evacuation platform.

8. Traumatic Brain Injury:

a. Evaluation and treatment of suspected mild TBI/concussion is generally best deferred to Prolonged Casualty Care or subsequent phases of care.

b. Suspected Moderate or Severe Traumatic Brain Injury: Unable to follow simple instructions (thumbs up, two fingers or blink) beyond 10 minutes post injury AND suspected head injury without alternative cause. If uncertain on the cause of an abnormal neuro exam, error on the side of treating hemorrhagic shock. Evacuate the casualty as soon as possible to neurosurgical capability as outcomes are improved with surgical intervention within 5 hours of injury.
    1. Prevent hypoxemia (goal oxygen saturation ≥ 92%) and provide airway and respiratory interventions per TCCC Guidelines in Section (4) and (5). Administer supplemental oxygen if available.
    2. Prevent hypotension and target a systolic blood pressure greater than 100 mmHg OR, if measurement capability is absent, target a normal radial pulse.
        - If hemorrhagic shock is also present, resuscitation for hemorrhagic shock takes precedence over resuscitation for TBI. Administer IV/IO fluids per the TCCC Guidelines in Section (6).
        - If no evidence of hemorrhage, administer 1-2 units of plasma. Plasma is not indicated for mild TBI /concussion.
    3. If patient is ventilated and end-tidal CO2 monitoring is available, target an EtCO2 of 35-45 mmHg. If ventilating a patient and EtCO2 monitoring not available, provide low tidal volume ventilation at 10 breaths per minute (one breath every 6 seconds).
c. Reduce intracranial pressure:
    1. Elevate head and torso greater than 30 degrees IF casualty not in shock AND tactically feasible.
    2. Loosen cervical collar if present and keep head facing forward without rotation of the neck.
    3. Closely monitor for agitation and provide analgesia and/or sedation per TCCC Guidelines in Section (11).
d. Identify and treat herniation (asymmetric or fixed/dilated pupil(s), or posturing):
    1. Administer 250ml of 3% or 5% hypertonic saline OR 30ml of 23.4% hypertonic saline IV/IO over at least 10 minutes followed by a saline flush.
    2. Repeat in 20 minutes if no response (max 2 doses).
    3. Monitor IV/IO site and discontinue if signs of extravasation.
        - ❖ Do NOT attempt to use hypertonic saline prophylactically to prevent herniation.
        - ❖ Hypertonic saline is NOT a resuscitative fluid.
e. Penetrating TBI or open skull fractures are not automatically expectant casualties:
    1. Apply surface a dressing which prevents contaminants from entering the wound.
    2. If there is active bleeding from the wound or wound edges, apply hemostatic gauze to the surface and hold gentle pressure.
        - ❖ DO NOT pack any material into the wound cavity.
        - ❖ DO NOT attempt to close the wound with staples or sutures.
    3. Gentle low-pressure irrigation of gross contamination with saline or potable water is acceptable.
    4. Administer antibiotics per TCCC Guidelines in Section (12).
f. Reassess neurologic status every 5-10 minutes to evaluate for worsening status.

9. Penetrating Eye Trauma

- If a penetrating eye injury is noted or suspected:
  - Perform a rapid field test of visual acuity and document findings.
  - Cover the eye with a rigid eye shield (NOT a pressure patch).
  - Administer ceftriaxone 2g IV or IM, or cefadroxil 1g orally as soon as possible.

10. Monitoring

1. Initiate advanced electronic monitoring if indicated and if monitoring equipment is available.

11. Analgesia

a. Casualty can stay in the fight/mission capable:
   1. Analgesia is self-administered or co-administered by TCCC Personnel.
   2. TCCC Combat Wound Medication Pack (CWMP)
      - Acetaminophen – 1000mg - 1300mg (e.g., two 650mg extended-release caplets) PO every 8 hours
      - Meloxicam – 15 mg PO once a day
      - Suzetrigine – 100 mg PO once (2 x 50 mg tablets) then 50 mg PO every 12 hours

b. Casualty cannot stay in the fight/non-mission capable:

   1. If not already taken, direct casualty to take TCCC Combat Wound Medication Pack (CWMP).
      AND
   2. TCCC Medical Personnel:
      - Ketamine 100 mg IM.
        or
      - Ketamine 50 mg IN.
        or
      - Ketamine 25 mg (or 0.2 - 0.3 mg/kg) delivered IV or IO over 1 minute
        or
      - Esketamine 14 or 28 mg IN x 1.

   § Repeat doses q30 min prn.
   § Endpoints for Analgesia: Reduction of pain or development of nystagmus (rhythmic eye movement).

c. Analgesia and sedation notes:
   1. Disarm and consider disconnecting communications equipment for casualties who are administered Ketamine.
   2. The goal of battlefield pain management is to achieve tolerable pain levels that preserve airway patency, respiratory drive, and mentation, rather than pursuing complete pain elimination or total sedation.

3. Document a mental status exam using the AVPU method on the DD Form 1380 TCCC Card prior to administering ketamine.
4. For all casualties given potent analgesics, monitor airway, breathing, and circulation closely.
5. Ketamine administration:
   - Use the higher concentration (100 mg/ml) for IN route to minimize volume.
   - IV/IO ketamine should be given slowly over 1 minute.
   - It is generally safe to give ketamine to a casualty who has previously received an opioid.
   - Fixed dosing is based on ease of draw, delivery, logistics, and improved
   - Outcomes.
6. Traumatic Brain Injury TBI and/or eye injury does not preclude the use of ketamine. Use caution with all sedating analgesics in TBI casualties as this may make it difficult to perform a neurologic exam or determine if the casualty is decompensating.
7. If respirations are reduced after using opioids or ketamine, reposition the casualty's airway into a "sniffing position". If that fails, provide ventilatory support.
8. Ondansetron, 4 mg Orally Dissolving Tablet (ODT)/IV/IO/IM, every 8 hours as needed for nausea or vomiting.
9. Co-administration of benzodiazepines with Ketamine or Esketamine is NOT recommended.
10. Polypharmacy is not recommended; benzodiazepines should NOT be used in conjunction with opioid analgesia.
11. If a casualty appears to be partially dissociated, it is safer to administer more ketamine than to use a benzodiazepine.

12. Antibiotics

a. Antibiotics recommended for all open combat wounds and invasive procedures.
b. If able to take PO meds:
   - Cefadroxil 1 gram PO once a day.
   - OR Cephalexin 500mg PO every 6 hours (Alternative)
c. If unable to take PO meds (shock, unconsciousness):
   - Ceftriaxone 2 gm IV/IO/IM once a day.

13. Inspect and dress known wounds.

a. Inspect and dress known wounds.
b. Abdominal evisceration – Control bleeding; rinse with clean (and warm if possible) fluid to reduce gross contamination. Hemorrhage control – apply combat gauze or CoTCCC recommended hemostatic dressing to uncontrolled bleeding. Cover exposed bowel with a moist, sterile dressing or sterile water-impermeable covering.
   1. Reduction: do not attempt if there is evidence of ruptured bowel (gastric/intestinal fluid or stool leakage) or active bleeding.

2. If no evidence of bowel leakage and hemorrhage is visibly controlled, a single brief attempt (<60 seconds) may be made to replace/reduce the eviscerated abdominal contents.
3. If unable to reduce; cover the eviscerated organs with water impermeable non-adhesive material (transparent preferred to allow ability to re-assess for ongoing bleeding); examples include a bowel bag, IV bag, clear food wrap, etc. and secure the impermeable dressing to the casualty using adhesive dressing (examples: ioban, chest seal).
4. Do NOT FORCE contents back into abdomen or actively bleeding viscera.
5. The casualty should remain NPO.

c. Sedation required (TCCC-Combat Paramedics/Providers): significant severe injuries requiring dissociation for casualty safety or mission success or when a casualty requires an invasive procedure; must be prepared to secure the airway:

- Ketamine 1-2 mg/kg slow IV/IO push initial dose
  - Endpoints: procedural (dissociative) anesthesia
- Ketamine 300 mg IM (or 2-3 mg/kg IM) initial dose
  - Endpoints: procedural (dissociative) anesthesia

❖ If an emergence phenomenon occurs, consider giving 0.5-2 mg IV/IO midazolam.
❖ If continued dissociation is required, move to reference the Prolonged Casualty Care (PCC) analgesia and sedation guidelines.

14. Check for additional wounds.

15. Burns.

a. Assess and treat as a trauma casualty with burns and not burn casualty with injuries.
b. Facial burns, especially those that occur in closed spaces, may be associated with inhalation injury. Aggressively monitor airway status and oxygen saturation in such casualties and consider early surgical airway for respiratory distress or oxygen desaturation.
c. Estimate total body surface area (TBSA) burned to the nearest 10% using the Rule of Nines.
d. Cover the burn area with dry, sterile dressings. For extensive burns (>20%), consider placing the casualty in the Heat-Reflective Shell or Blizzard Survival Blanket from the Hypothermia Prevention Kit in order to both cover the burned areas and prevent hypothermia.
e. Fluid resuscitation (USAISR Rule of Ten):
   1. If burns are greater than 20% of TBSA, fluid resuscitation should be initiated as soon as IV/IO access is established. Resuscitation should be initiated with Lactated Ringer's, normal saline, or Hextend. If Hextend is used, no more than 1000 ml should be given, followed by Lactated Ringer's or normal saline as needed.

2. Initial IV/IO fluid rate is calculated as %TBSA x 10 ml/hr for adults weighing 40- 80 kg.
3. For every 10 kg ABOVE 80 kg, increase initial rate by 100 ml/hr.
4. If hemorrhagic shock is also present, resuscitation for hemorrhagic shock takes precedence over resuscitation for burn shock. Administer IV/IO fluids per the TCCC Guidelines in Section (6).
5. Consider oral fluids for burns up to 30% TBSA if casualty is conscious and able to swallow.

f. Analgesia in accordance with the TCCC Guidelines in Section (11) may be administered to treat burn pain.
g. Prehospital antibiotic therapy is not indicated solely for burns, but antibiotics should be given per the TCCC guidelines in Section (12) if indicated to prevent infection in penetrating wounds.
h. All TCCC interventions can be performed on or through burned skin in a burn casualty.
i. Burn casualties are particularly susceptible to hypothermia. Extra emphasis should be placed on barrier heat loss prevention methods.

16. Splint fractures and re-check pulses.

17. Cardiopulmonary resuscitation (CPR).

a. Resuscitation on the battlefield for victims of blast or penetrating trauma who have no pulse, no ventilations, and no other signs of life will not be successful and should not be attempted.
b. However, casualties with torso trauma or polytrauma who have no pulse or respirations during TFC should have bilateral needle decompression performed to ensure they do not have a tension pneumothorax prior to discontinuation of care. The procedure is the same as described in section (5a) above.

18. Communication.

a. Communicate with the casualty if possible. Encourage, reassure and explain care.
b. Communicate with tactical leadership as soon as possible and throughout casualty treatment as needed. Provide leadership with casualty status and evacuation requirements to assist with coordination of evacuation assets.
c. Communicate with the evacuation system (the Patient Evacuation Coordination Cell) to arrange for TACEVAC. Communicate with medical providers on the evacuation asset if possible and relay mechanism of injury, injuries sustained, signs/symptoms, and treatments rendered. Provide additional information as appropriate.

19. Documentation of Care.

a. Document clinical assessments, treatments rendered, and changes in the casualty's status on a TCCC Card (DD Form 1380).
b. Forward documentation with the casualty to the next level of care.

20. Prepare for Evacuation.

a. Complete and secure the TCCC Card (DD 1380) to the casualty.
b. Secure all loose ends of bandages and wraps.
c. Secure hypothermia prevention wraps/blankets/straps.
d. Secure litter straps as required. Consider additional padding for long evacuations.
e. Provide instructions to ambulatory casualties as needed.
f. Stage casualties for evacuation in accordance with unit standard operating procedures.
g. Maintain security at the evacuation point in accordance with unit standard operating procedures.

Principles of Tactical Evacuation Care (TACEVAC)

* The term "Tactical Evacuation" includes both Casualty Evacuation (CASEVAC) and Medical Evacuation (MEDEVAC) as defined in Joint Publication 4-02.

Basic Management Plan for Tactical Evacuation Care

1. **Transition of Care**
    a. Tactical force personnel should establish evacuation point security and stage casualties for evacuation.
    b. Tactical force personnel or the medic should communicate casualty information and status to TACEVAC personnel as clearly as possible. The minimum information communicated should include stable or unstable, injuries identified, and treatments rendered.
    c. TACEVAC personnel should stage casualties on evacuation platforms as required.
    d. Secure casualties in the evacuation platform in accordance with unit policies, platform configurations and safety requirements.
    e. TACEVAC medical personnel should re-assess casualties and re-evaluate all injuries and previous interventions.

2. **Massive Hemorrhage** (same as Tactical Field Care)

3. **Airway Management**

    Endotracheal intubation may be considered in lieu of cricothyroidotomy if trained.

4. **Respiration/Breathing**

    Most combat casualties do not require supplemental oxygen, but administration of oxygen may be of benefit for the following types of casualties:
    - Low oxygen saturation by pulse oximetry
    - Injuries associated with impaired oxygenation
    - Unconscious casualty
    - Casualty with TBI (maintain oxygen saturation $\geq$ 92%)
    - Casualty in shock
    - Casualty at altitude
    - Known or suspected smoke inhalation

5. **Circulation** (same as Tactical Field Care)

6. **Moderate or Severe Traumatic Brain Injury (same as Tactical Field Care)**

7. **Hypothermia Prevention** (same as Tactical Field Care)

8. **Penetrating Eye Trauma** (same as Tactical Field Care)

9. **Monitoring** (same as Tactical Field Care)

10. **Analgesia** (same as Tactical Field Care)

11. **Antibiotics** (same as Tactical Field Care)

12. **Inspect and dress known wounds** (same as Tactical Field Care)

13. **Check for additional wounds.** (same as Tactical Field Care)

14. **Burns** (same as Tactical Field Care)

15. **Splint fractures and re-check pulses** (same as Tactical Field Care)

16. **Cardiopulmonary resuscitation (CPR) in TACEVAC**

    a. Casualties with torso trauma or polytrauma who have no pulse or respirations during TACEVAC should have bilateral needle decompression performed to ensure they do not have a tension pneumothorax. The procedure is the same as described in Section (4a) above.
    b. CPR may be attempted during this phase of care if the casualty does not have obviously fatal wounds and will be arriving at a facility with a surgical capability within a short period of time. CPR should not be done at the expense of compromising the mission or denying lifesaving care to other casualties.

17. **Communication**
    a. Communicate with the casualty if possible. Encourage, reassure and explain care.
    b. Communicate with medical providers at the next level of care as feasible and relay mechanism of injury, injuries sustained, signs/symptoms, and treatments rendered. Provide additional information as appropriate.

18. **Documentation of Care** (same as Tactical Field Care)

Committee on Tactical Combat Casualty Care (CoTCCC), 2025-2026.

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