

Summary of Recent Changes to the TCCC Guidelines

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Tranexamic Acid (TXA) — CAPT Brendon Drew

*New CoTCCC Chair – Navy EM Specialty Leader

1. Changed TXA from 2 doses to 1 dose in the prehospital setting
2. Increases the dose of TXA to 2g
3. Give TXA as slow IV push rather than over 10 min
4. Added significant TBI as an indication

Tourniquets — MSG (Ret) Harold Montgomery

1. There are now eight tourniquets recommended by the CoTCCC.

Recommended *nonpneumatic* limb tourniquets:

- Combat Application Tourniquet, Generation 6 (CAT-6)
- Combat Application Tourniquet, Generation 7 (CAT-7)
- SOF Tactical Tourniquet-Wide, Generation 3 (SOFTT-W)
- Tactical Mechanical Tourniquet (TMT)
- Ratcheting Medical Tourniquet-Tactical (RMT-T)/TX2/TX3 Tourniquets
- SAM Extremity Tourniquet (SAM-XT)

Recommended *pneumatic* limb tourniquets:

- Emergency and Military Tourniquet (EMT)
- Tactical Pneumatic Tourniquet, 2 inch (TMT2)

2. Tourniquets NOT Currently Recommended by the CoTCCC
 - Stretch-Wrap-And-Tuck Tourniquet (SWAT-T)
 - Special Operations Forces Tactical Tourniquet
 - Israeli Emergency Silicon Tourniquet (IEST)
 - London Bridge Ratchet Tourniquet
 - McMillan Tourniquet
 - Mechanical Advantage Tourniquet (MAT)
 - Military Emergency Tourniquet (MET) and Response TK (RTK)
 - NATO Tourniquet
 - OMNA Tourniquet
 - Ramsey's Red-Pull Tourniquet
 - Rapid Application Tourniquet System (RATS)
 - Recon Medical Tourniquet
 - STAT Tourniquet
 - TK4/Tourni-Quik/TK4L3.
3. Watch out for FAKE tourniquets – they are out there and are inferior in quality

Hypothermia Prevention — CAPT (Ret) Brad Bennet

1. The TCCC guidelines no longer specifically recommend the HPMK. BUT — it works, it is smaller than most, and it is less expensive!

- The Hypothermia Prevention section has been reworded as below:
 - 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).
 - As soon as possible, upgrade the hypothermia enclosure system to a well-insulated enclosure system using a hooded sleeping bag or other readily available insulation inside the enclosure bag and an external vapor barrier shell.
- Added: "Use a battery-powered warming device to deliver IV resuscitation fluids, in accordance with current CoTCCC guidelines, at flow rates up to 150mL/min with a 38°C output temperature."

Battlefield Analgesia — MAJ (Dr) Andy Fisher

- Increased initial IV dose of ketamine to 30mg IV (50–100 IM)
- Added fentanyl 50µg IV (100µg IN) as an option
- Added ketamine procedural sedation at 1mg/kg IV (300 IM)
- Added ketamine infusion — 0.3mg/kg of ketamine in 100mL of 0.9% sodium chloride given over 5–15 minutes
- Considered sublingual sufentanil as a potential option, but did not add this medication to the recommended list.

Abdominal Evisceration — COL Jamie Riesberg

- Control bleeding — apply Combat Gauze or CoTCCC-approved hemostatic dressing to uncontrolled bleeding.
- Rinse with clean fluid to reduce gross contamination.
- Cover exposed bowel with a moist, sterile dressing or sterile water impermeable covering.
- Reduction — a single brief attempt may be made to replace/reduce the eviscerated abdominal contents.
 - If successful, reapproximate the skin using available material, preferably an adhesive dressing like a chest seal (other examples include suture, staples, wound closure devices).
 - If unable to reduce; cover the eviscerated organs with water impermeable nonadhesive material (transparent

preferred to allow ability to reassess for ongoing bleeding); examples include a bowel bag, IV bag, clear food wrap, etc. and secure the impermeable dressing to the patient using adhesive dressing (examples: Ioban, chest seal).

- *Do NOT FORCE contents back into abdomen or actively bleeding viscera.
- 5. OK to administer combat wound medication pack.

Fluid Resuscitation — CAPT Travis Deaton

- Cold-stored low titer type O whole blood (CS-LTOWB) is the preferred resuscitation fluid for casualties in hemorrhagic shock.
- Fresh LTOWB from a pre-screened donor pool is the next best option.
- LR, PlasmaLyte A, and Hextend have been *removed* from the TCCC guidelines as recommended fluids for resuscitation of casualties with hemorrhagic shock.
- Reassess the casualty after each unit. Continue resuscitation until a palpable radial pulse, improved mental status or systolic BP of 100mmHg is present.
- If blood products are transfused, administer 1g calcium (30mL of 10% calcium gluconate or 10mL of 10% calcium chloride) IV/IO after the first transfused product.
- 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 between 100 and 110mmHg.

Monty's MegaChange 2 — MSG (Ret) Harold Montgomery

- "Care Under Fire" changed to "Care Under Fire/Threat"
- Eliminated redundant wording between TFC and TACEVAC
- Moved "assess for shock" ahead of airway in MARCH.
- Notes that the TACEVAC section of the TCCC Guidelines will be updated by the Joint Trauma System Committee on En Route Combat Casualty Care (CoERCCC) going forward.



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